

GCA

Goizueta Consulting Association

Interview Book

Abbreviated Contents

Abbreviated Contents	2
Contents	3
Introduction	12
Noonan on Consulting	13
Everyone is a Consultant	18
I-Banking vs. Consulting vs. VC	20
What consultants love (and hate) about consulting ..	21
Getting the Interview	23
The Interview Process	25
Behavioral Interview	26
Case Interview	31
Public Math	37
Size doesn't matter	40
Brainteasers	42
Résumé Case	44
Your MBA in a Nutshell	45
Think like a consultant	67
Case-questions and Frameworks	68
Practice Cases	98
Action-verbs for Résumés	663
Sample of Consulting Firms	664
Interview Evaluation Form for Mock-interviews	665
More Resources	666

Contents

Abbreviated Contents	2
Contents	3
Introduction	12
Noonan on Consulting	13
Introduction.....	13
One person’s perspective (My background & biases):	13
My client experience includes... ..	13
History of consulting at Goizueta	14
Doing the job well.....	14
Is consulting for you?.....	14
Was consulting for me?	15
Succeeding on the job	15
Getting the job.....	15
What is under your control?.....	15
Preparation	15
Interviewing is a decision process	16
Things to watch out for: Feedback from Firms & Personal Observation	16
A Compact Consulting Library.....	17
Everyone is a Consultant	18
Industry Elite.....	18
Boutique Strategy Firms	18
Technology and Systems Consulting Firms	18
Human Resources Consulting.....	19
Top-10 Consulting Firms, by 2003 Revenues	19
I-Banking vs. Consulting vs. VC	20
What consultants love (and hate) about consulting	21
What's Great.....	21
<i>Love My Job</i>	21
<i>People Power</i>	21
<i>Learning Environment</i>	21
What's To Hate.....	21
<i>A Dog’s Life</i>	21
<i>"I'd Rather Be . . ."</i>	21
<i>What difference does it make?</i>	22
Getting the Interview	23
Networking at Events (such as those organized by GBS)	24
<i>Before the Event</i>	24
<i>During the Event</i>	24
<i>Exit Strategies</i>	24
<i>After the event</i>	24
<i>Some General Tips from the Experts</i>	24
The Interview Process	25
Getting inside the interviewer’s mind.....	25
Behavioral Interview	26

The Basics	26
Sample questions	26
Close the deal	30
Case Interview	31
Objective	31
Before the interview	32
The wrong answer	32
Getting the “process” right.....	32
<i>Step 1 - State the problem</i>	<i>33</i>
<i>Step 2 - Disaggregate the issues</i>	<i>33</i>
<i>Step 3 - Eliminate all non-key issues.....</i>	<i>34</i>
<i>Step 4 - Conduct critical analysis, porpoise between data and hypothesis.....</i>	<i>34</i>
<i>Step 5 - Synthesize findings and build argument.....</i>	<i>35</i>
Some simple tactics.....	35
What to do in a crisis	35
Public Math	37
It’s the zeroes, it’s always the zeroes.....	37
Dealing with fractions.....	37
What’s it with consultants and 15?	38
Size doesn’t matter.....	40
Market-sizing assumptions	40
Sample of market-sizing question.....	41
Brainteasers	42
Steep Interest Rates.....	42
Manholes.....	42
Soda cans	42
Time-bomb.....	42
Beer in UK	43
Résumé Case.....	44
Your MBA in a Nutshell.....	45
Remember DIA?	45
<i>Decision Tree</i>	<i>45</i>
<i>Risk Profile.....</i>	<i>46</i>
<i>Probability Distributions.....</i>	<i>48</i>
<i>Sampling and Central Limit Theorem.....</i>	<i>48</i>
It’s about the money, honey	49
<i>Supply and Demand</i>	<i>49</i>
<i>Fixed Cost and Variable Cost.....</i>	<i>49</i>
<i>Marginal Cost and Average Cost.....</i>	<i>49</i>
Elasticity.....	50
Opportunity Cost.....	52
Break-even Point.....	52
Economies of Scale.....	52
Network Effects	53
Law of Variable Proportions.....	54
Prisoner’s Dilemma	54
Pareto Principle	56
Don’t forget strategy	56

<i>Porter's Five Forces</i>	56
<i>Core Competence</i>	58
<i>Business Process Reengineering</i>	58
<i>Learning Curve</i>	59
<i>Key Success Factors</i>	59
<i>Vertical Integration</i>	60
<i>Porter's 3 Generic Strategies</i>	60
<i>CSC Index's Value Disciplines</i>	60
Marketing on my mind	60
<i>The 5 C's</i>	61
<i>The 4 P's</i>	61
<i>Product Life Cycle</i>	62
<i>BCG's Growth-Share Matrix</i>	63
<i>STP</i>	63
<i>McKinsey's Brand-building Matrix</i>	63
<i>Pricing</i>	64
<i>Marketing Increases Revenues</i>	65
Accounting for Finance	65
<i>Net Present Value</i>	66
<i>Weighted Average Cost of Capital (WACC)</i>	66
Operating on the Business	66
<i>Strategic Outsourcing</i>	66
Think like a consultant	67
Case-questions and Frameworks	68
If Scenarios to remember	69
<i>Sales scenarios</i>	69
<i>Profit scenarios</i>	69
<i>Product scenarios</i>	69
<i>Pricing scenarios</i>	69
Declining Profits	71
<i>Sample Case: Retail Profits (Bain)</i>	71
Increase Profitability	73
<i>Sample Case: Paper Towel Profits (BCG)</i>	73
Investment Decision	76
<i>Sample Case: Collin's Coffins (McKinsey)</i>	76
Acquisition	80
<i>Sample Case: Bank UK (McKinsey)</i>	80
International Expansion	82
<i>Sample Case: Beer Brew (Harvard)</i>	82
New-Product Introduction	84
<i>Sample Case: Innovation Factory (McKinsey)</i>	84
Pricing	89
<i>Sample Case: Heart Corp (McKinsey)</i>	89
Increase Revenues/ Growth	95
<i>Sample Case: Designer Depot (McKinsey)</i>	95
Practice Cases	98
Cases provided by the firms	98
<i>A.T.Keaney - Bicycle Blunders</i>	98
<i>A.T.Kearney - Cookie Cutter</i>	103

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

<i>A.T.Kearney - Oil Oomph</i>	107
<i>Bain - Food services costs</i>	111
<i>Bain - Giant Bank</i>	117
<i>Bain - Gulf Partners and Acme Packaging</i>	123
<i>BCG - Trevor's Toys</i>	127
<i>BCG - GenCo</i>	137
<i>BCG - Fighter Jet</i>	145
<i>BCG - Foods, Inc.</i>	151
<i>BCG - Canada Co.</i>	158
<i>BCG - Phones in Manhattan</i>	165
<i>BCG - Hotel-sized Shampoo</i>	166
<i>BCG - Light Bulbs</i>	167
<i>Mercer - Hammer Jack</i>	168
<i>Mercer - Star Corporation</i>	180
<i>McKinsey - Magna Health</i>	186
<i>BCG - Additional Questions</i>	193
Cases from interviews.....	194
<i>Bottling Cognac in Russia (Bain)</i>	194
<i>Commercial Gas Market Entry (Booz Allen Hamilton)</i>	196
<i>Credit Card Cost-Cutting</i>	198
<i>Furniture Market Expansion</i>	199
<i>Laundry Profits Dwindling</i>	200
<i>Kool Aid Global Expansion</i>	201
<i>Phone Business Opportunity</i>	202
<i>Airplane New Competition</i>	203
<i>Audio-cassette Poor Sales</i>	204
<i>Agricultural-equipment Profitability</i>	205
<i>Retail Competition</i>	206
<i>Fertilizer Factory (Bain)</i>	210
<i>Helpless Helmets (Bain)</i>	212
<i>Atlanta Entertainment</i>	215
From Harvard's case-book	217
<i>Retailer Growth</i>	217
<i>Butcher Shop Process</i>	219
<i>Juice Producer Profitability</i>	221
<i>Chemical Manufacturer Profitability</i>	223
<i>VieTire Competition</i>	225
<i>World View TV Profitability</i>	227
<i>Le Seine Investment</i>	229
<i>Auto Service Expansion</i>	231
<i>Travel Agency</i>	233
<i>Hospital Profitability</i>	235
<i>E-Grocery Market-entry</i>	237
<i>Formula Producer Investment</i>	239
<i>Pharmaceutical Product-launch</i>	241
<i>Scotch Manufacturer</i>	247
<i>Regional Jet Corporation</i>	252
<i>British Times</i>	257
<i>Children Clothes E-Retailer</i>	260
<i>Consumer Products</i>	263
<i>The Video Store near HBS</i>	265

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

<i>The English Church</i>	268
<i>HBS as a Business</i>	270
<i>Fast Food Profitability</i>	272
<i>Automobile Product-design</i>	274
From Kellogg's case-book.....	276
<i>Food Wholesaling Case</i>	276
<i>GOTONet Case</i>	280
<i>Maine Apples Case</i>	283
<i>Orrington Office Supplies Case</i>	287
<i>Syzygy Supercomputers Case</i>	291
<i>Winter Olympics Bidding Case</i>	296
<i>Rotisserie Ranch</i>	299
<i>Tarrant Fixtures</i>	303
<i>Vindaloo Corporation</i>	305
<i>Zephyr Beverages</i>	307
<i>Prozac (A.T.Kearney)</i>	309
<i>Shamrock Chemical</i>	314
<i>Distilled Spirits</i>	318
<i>Commodity Manufacturer (McKinsey)</i>	319
<i>Snack Food Company</i>	320
<i>Conglomerate ROIC Increase (McKinsey)</i>	322
<i>Agricultural Equipment Manufacturing</i>	324
<i>Paint Manufacturer (McKinsey)</i>	325
<i>Local Banking Demand</i>	327
<i>Cement Manufacturing Capacity</i>	328
<i>Candy Company</i>	329
<i>Direct Mail Retailer</i>	330
<i>Selective Binding</i>	331
<i>Iberia Gasoline (DiamondCluster)</i>	333
<i>Pipeline Company</i>	335
<i>Permanent Light Bulbs</i>	337
<i>Aluminum Can Manufacturer</i>	338
<i>Scientific Industry</i>	339
<i>Information Services Company</i>	340
<i>Meat Packing Industry</i>	342
<i>Merger Candidate in Chemical Industry (McKinsey)</i>	343
<i>Machine-loading</i>	344
<i>Telecommunications Diversification</i>	346
<i>Packing Material Manufacturer</i>	347
<i>Corn Feed Company</i>	348
<i>Buenos Aires ENT</i>	349
<i>Consulting Firm</i>	351
<i>Concrete Manufacturer</i>	352
<i>Healthcare Company Growth</i>	353
<i>Gas Manufacturer (McKinsey)</i>	354
<i>Vitamin Manufacturer's Entry into China (McKinsey)</i>	356
<i>Cigar Bar</i>	358
<i>New Magazine</i>	359
<i>Piano Tuners</i>	360
<i>Chicago Loop (Booz Allen Hamilton)</i>	361
<i>Chewing Gum Market</i>	362

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

<i>Golf Ball Market Entry</i>	363
<i>Oil Refining Industry</i>	364
<i>Logging Company</i>	365
<i>Cure for Common Headaches (BCG)</i>	366
<i>Chemical Sweetener Manufacturer</i>	367
<i>Austria Star Mobile Launch (DiamondCluster)</i>	368
From Columbia's case-book.....	370
<i>Whine Wine</i>	370
<i>Corrosive Chemical</i>	372
<i>Pathetic Pharma</i>	375
<i>Boring Bank</i>	377
<i>Partial President</i>	379
<i>Loser Liquor</i>	382
<i>Sinking Ships</i>	384
<i>Problematic Publishing</i>	386
<i>Horrible Heart</i>	389
<i>Taxing Telephone</i>	392
<i>Daft Drugs</i>	395
<i>Book Beast</i>	399
<i>Party Power</i>	401
<i>Soybean Sojourn</i>	403
<i>Gopher Grocery</i>	405
<i>China Cancer</i>	407
<i>Tragic Teleporter</i>	409
<i>Bicycle Brouhaha</i>	411
<i>Diabolical Diesel</i>	413
<i>Prescription Pharmaceutical</i>	415
<i>Tommy Toys</i>	417
<i>Profit Slide</i>	419
<i>Food Farm</i>	421
<i>Concessions Champion</i>	423
<i>Boiler Embroiler</i>	424
<i>Competition Karma</i>	425
<i>Phone Prick</i>	427
<i>Land Lover</i>	428
<i>Credit Credo</i>	429
<i>Healthcare Hoopla</i>	430
<i>Athletic Art</i>	431
<i>Deep Discounts</i>	432
<i>Ghastly Gamer</i>	433
<i>Technology Tantrums</i>	435
<i>Exxon Eagle</i>	436
<i>Beer Bottles</i>	437
<i>Natty Knitter</i>	438
<i>Frequent Flyer</i>	440
<i>Ice Cream</i>	441
<i>Splitting (Dog) Hair</i>	442
<i>Social Interaction</i>	444
<i>Band Aid</i>	445
<i>Ski Sales</i>	446
<i>Austrian Village</i>	447

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

<i>Fine Wine</i>	449
<i>Quick Math</i>	450
<i>Out of the Box</i>	451
<i>Soda Cans</i>	452
<i>Fridge Lights</i>	453
From UCLA's case-book	454
<i>New Bulb Pricing (McKinsey)</i>	454
<i>Lodging e-Commerce (Diamond Technology Partners)</i>	458
<i>Amusement Park Expansion (BCG)</i>	462
<i>Amusement Park Expansion (BCG) – Alternative Solution</i>	465
<i>Aircraft Manufacturing (A.T.Kearney)</i>	467
<i>Thermal Imaging Market-entry (Booz Allen Hamilton)</i>	469
<i>Power Transformers Market-share (BCG)</i>	471
<i>Hospital Profits (McKinsey)</i>	473
<i>Eye-drops Pricing (McKinsey)</i>	475
<i>HMO Profitability (McKinsey)</i>	477
<i>Additional Questions (With abbreviated solutions)</i>	480
From Cornell's case-book	514
<i>USPS Employment</i>	514
<i>Shortstop to Base</i>	515
<i>Colorful M&M's</i>	516
<i>Book on China</i>	517
<i>Real-estate Divestiture</i>	518
<i>Pharmaceutical Pricing</i>	519
<i>Bank Profitability</i>	520
<i>Video-retailer Profitability</i>	522
<i>Soap-flake Manufacturer</i>	524
<i>Jam Company Profitability</i>	526
<i>Let's Go!</i>	528
<i>Department-store Product Costing (Bain)</i>	529
<i>Trucking Profitability</i>	531
<i>Phone-repair Profitability</i>	532
<i>Insurance Profits</i>	533
<i>Rail-freight Profits (Bain)</i>	534
<i>Airline-route Acquisition</i>	536
<i>Cable Operations</i>	537
<i>Real-estate Bank</i>	539
<i>Timber Profitability in Canada</i>	540
<i>Credit-card Profitability (McKinsey)</i>	541
<i>Bank-loan Operations</i>	543
<i>Mass-merchandiser Advertising (Deloitte)</i>	545
<i>Parcel Delivery Network</i>	547
<i>Charge-card Competition</i>	548
<i>Oil-drilling Investment</i>	550
<i>Direct-marketing Strategy</i>	552
<i>Margarine Brand-acquisition</i>	554
<i>Gasoline Retail-operations</i>	556
<i>Dessert Market-expansion</i>	557
<i>Cheese Marketing</i>	559
<i>Dental-care International Expansion</i>	561
<i>Airline Profits (McKinsey)</i>	563

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

<i>Newspaper-subsidiary Valuation</i>	565
<i>Petroleum-company Suppliers</i>	566
<i>Carpet Investment (McKinsey)</i>	567
<i>Telecommunications Product-portfolio</i>	569
<i>Glass Investment</i>	570
<i>Auto-parts Business-entry</i>	571
<i>Regional-bank Growth (McKinsey)</i>	572
<i>Conglomerate ROIC (McKinsey)</i>	574
<i>Financial-services Share-price (BCG)</i>	576
<i>Insurance Reporting (BCG)</i>	578
<i>Coca-Cola vs RC Cola</i>	580
<i>Software market-growth</i>	581
<i>Cutting-tool International-expansion</i>	583
<i>Contract-manufacturing product-portfolio</i>	585
<i>Senator Re-election</i>	586
<i>Soda Advertising</i>	588
<i>Suntan-lotion Sales</i>	590
<i>Hepatitis C Testing (McKinsey)</i>	592
<i>Additional Questions (No solutions provided)</i>	593
From Kenan-Flagler's case-book	595
<i>Dead Wood (Bain)</i>	595
<i>Golf Course (Bain)</i>	597
<i>Gas Guzzler (Corporate Decisions)</i>	599
<i>Olympic Problems (A.T.Kearney)</i>	600
<i>Rings (A.T.Kearney)</i>	601
<i>Wall Bored (McKinsey)</i>	603
<i>New Money or No Money? (McKinsey)</i>	604
<i>Truth in Advertising (McKinsey)</i>	605
<i>Push vs. Pull (Mercer)</i>	606
<i>Teflon Market-entry (BCG)</i>	608
<i>Telephone Manufacturing Competition (BCG)</i>	611
<i>Automobile Market-entry (BCG)</i>	613
<i>U.S. Photographic Industry Re-entry (BCG)</i>	615
<i>Surgical Supplies Competition (McKinsey)</i>	617
<i>Soft Drink Product Redesign (McKinsey)</i>	618
<i>Theatre Company in Atlanta (McKinsey)</i>	619
<i>Steel Throughput (McKinsey)</i>	621
<i>Garbage</i>	623
<i>Additional Questions (No Solutions Provided)</i>	625
From Wharton's Case Book	627
<i>Big Mac Light</i>	627
<i>Count the Fries?</i>	629
<i>Supplier Management</i>	632
<i>Classical-music Radio-station</i>	633
<i>Chemical Manufacturer's Portfolio of Business</i>	636
<i>Scale of Justice</i>	639
<i>Home-builder Entering New Business</i>	641
<i>Asian Gas Retail Expansion</i>	643
<i>Moolahian Smart Cards</i>	646
<i>Dallas Symphony Orchestra</i>	648
<i>Oil Field</i>	650

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

Venture Capitalist Entering Oil Field Service Industry..... 651
Capital Intensive Investments..... 653
The Tightest Ship in the Shipping Business..... 654
Oil Lambada..... 655
Hotel Quickie 656
Consulting Firm Dashboard 657
Steel Threat 658
Hardware and More..... 660
Additional Cases (No Solution Provided) 662
Action-verbs for Résumés 663
Sample of Consulting Firms..... 664
Interview Evaluation Form for Mock-interviews 665
More Resources..... 666

Introduction

Consulting firms sell solutions, but they rent out brains. Consultants get paid to analyze and synthesize massive amounts of foreign information, discard the irrelevant bits, structure an approach to the issue, and hypothesize logically before senior management of large corporations.

Consultants spell change (for the better, of course) to organizations. It is only fair then, that consultants live lives of constant change. Before you drop a single resume for a consulting job (or internship), think deeply about whether you really want to get into it.

The scariest and the most exciting aspect about consulting is that you are in a state of constant flux. You can expect to spend an average of 4-5 days every week away from home.

You also keep going from a 'know-nothing' to 'guru' and back. You start off on a project without any knowledge of the industry or the company. You painstakingly build your knowledge and skills, and, within a few months, achieve a level of expertise that took people years to master. Then the project gets over. You move on to the next one. Back to square one. If you can survive that, and learn to enjoy it, welcome to consulting.

Now that you have been warned, we must say that consulting is the most exciting and enriching career we can think of. Which other career provides you with lifelong learning, the opportunity to work with the brightest minds, the prospect of traveling across the country...even around the world, and the chance to become an expert in many different fields?

This book has been compiled to help you prepare for consulting interviews, and succeed at them. Since consulting firms attach exceptional importance to case-interviews, the bulk of this book deals with that format. The academic frameworks, useful as they are, sometimes present the problem of plenty, and students have, in the past, memorized scores of frameworks and then struggled to find the one to apply to a question. The approach adopted by this book will, hopefully, simplify things. So, go ahead. Enjoy! Prepare well. We wish you the very best with your interviews and careers.

Navjit Gill
President
navjit_gill@bus.emory.edu

Vivek Pundir
VP (External Affairs)
vivek_pundir@bus.emory.edu

Hanna Boyle
VP (Internal Affairs)
hanna_boyle@bus.emory.edu

ACHTUNG BABY: This book is for **guidance purposes only**, and should **not** be used as a definitive or the only source while preparing for the interviews.

Please do understand that the views presented in this Interview Book are those of the compiler/ editor, and do **not** necessarily represent the views and opinions of Goizueta Consulting Association.

Noonan on Consulting

Professor Patrick Noonan is a professor in the Decision and Information Analysis department at Goizueta Business School, and the faculty sponsor for Goizueta Consulting Association. Following are his notes for a brown-bag session, organized by the GCA, on his perspectives on consulting.

Though these notes are good reference, they are incomplete without the accompanying explanation and discussion - attend the next brown-bag session we have!

Introduction

- One person's experience & perspective
 - personal background
 - generalizability of lessons beyond consulting
 - consulting-y roles in many companies these days
 - building for consulting profile helps with other searches
- What I can't tell you much about
 - how each firm currently works
 - what specific firms are most interested in this year
 - who's hiring, or how many openings there are

One person's perspective (My background & biases):

- B.S. Engineering & Applied Science, Yale '73-'77
- Pro musician & environmental leader '77-'82
- MBA, Yale School of Management '82-'84
- McKinsey & Company (New York)
 - media & entertainment practice
 - summer associate '83; returned fulltime '84-'88
- Ph.D. Decision Sciences, Harvard '88-'92
- Director, Planning Technologies Group (Lexington, Mass.)
 - co-founded strategy firm in '90
 - specialized in improving senior executive planning processes using new information technologies and decision tools
 - sold to NextEra (Michael Milken/Larry Ellison) in '98

My client experience includes...

- Merrill Lynch
- Microsoft
- BMG (Bertelsmann Music Group)
- New York Daily News
- News International (UK newspaper division of Murdoch's NewsCorp)

- Squibb Pharmaceuticals
- Mead Johnson Nutritionals (division of Bristol Myers Squibb)
- Accenture
- Economics Institute
- Verisign/Network Solutions
- SeaLand (division of CSX)
- HFC Canada (division of Household Finance)
- Greenpeace USA
- Johns Hopkins University

History of consulting at Goizueta

- Distinct Phases, 1993-2005
 - nothing
 - feeding frenzy
 - steady growth & development
 - bust... and rebirth
- Successes & failures

Doing the job well

- Be the right person
 - have right intrinsic nature to begin with
 - become well-prepared
- Select the right firm
 - good match with
 - skills
 - interests
 - career expectations

Is consulting for you?

What kind of person succeeds in consulting?

- enjoys projects & teams, changing scenery (literal and figurative), ongoing challenge, problem solving
 - caution! starting something new makes you “feel stupid”
- organized thinker
 - but flexible: quick learner, quick to adapt, resilient
- self-starting and self-guiding
 - intellectually curious explorers
- confident but self-aware
 - not fearless, but can face fears
- can surrender life for a while
 - love hard work, learning, professional growth

Was consulting for me?

- Yes
 - would do it all over again
 - much personal, intellectual & professional growth
 - business skill
 - network of great friends & professional contacts
 - reputation
 - net worth
- If so good, why not still there?
 - timing: had good run, left on top, time to start family
 - specific conditions: didn't envy the life of junior partners, at McKinsey, in NYC, in 1988

Succeeding on the job

- Showing initiative - going beyond minimum expectations
- Showing flexibility (give & take)
- Working effectively with wide range of people
- Getting fingernails dirty (especially with data & analysis)
- Fearlessly seeking - and acting on - feedback

Getting the job

- Choosing your parents wisely
 - What has shaped you up to this point
- What remains under your control?
 - courses
 - reputation with professors
 - preparation

What is under your control?

- Choose courses well
 - go for things you need to know...
 - ...and fill in your functional gaps
 - strong general management foundations (incl Nego, KM)
 - get lots of analytics
 - economic analysis
 - unit economics
 - derive supply, demand curves from discrete facts (not algebraic forms & continuous functions IRL!)
 - ICA, FSA, DIA suite, quant-oriented Mkt Research
- Impress your professors
 - we get called by the consulting firms!

Preparation

- The usual effort the CMC and GCA tells you to put in... only more so:

- resumes
- networking
- company research (formal & informal)
- company presentations
- Plus:
 - case interviews
 - practice, practice, practice

Interviewing is a decision process

- See it from the perspective of those decision-making individuals
- That is: Help your interviewer sell you!
 - Their firm wants people who are:
 - good problem solvers
 - effective in teams
 - leaders
 - Interviewer needs evidence of all three
 - Your job is to provide the interviewer specific evidence
 - Then s/he can close sale (to the next round gatekeepers)

Things to watch out for: Feedback from Firms & Personal Observation

- Use absolute top standard of values
 - Core values all apply here – demonstrate them across the board
- “Emphasize real experience over school work”
 - e.g. actual project for an employer is stronger evidence than grades, Marketing Competition or case competitions
- Avoid unprofessional behavior
 - arrogance - confidence without grace or humility
 - “argumentative, aggressive behavior”
 - not listening well, or responding well to feedback
 - not showing up at presentations
 - not having done homework about firm, consulting profession
- Don’t become the cliché MBA: an “excellent BS-er”
 - stress “substance vs. style,” “content vs. form”
 - “reduce use of buzzwords”
 - unless you have specific ideas behind them
 - talk specifics, and address the details
 - avoid the “100,000-ft. view”
 - “apply frameworks to situation or case at hand, not as if you are giving a general lecture on the topic”
 - be practical
 - “connect theory with reality”
 - ask “so what” questions, give “so what” answers
 - link problem solving to action plans
- Assume they are skeptical about your problem structuring skills

- decompose the problem early
 - develop issue trees
 - unsuccessful applicants need a lot more “solid, upfront structuring”
- avoid a flailing, “inappropriate” use of frameworks
 - analogy: memorizing a lot of fancy words from a vocabulary list does not make you a better speaker, or a better thinker
 - chess & guitar-playing analogies – learn to see patterns, rather than try to follow hard rules
 - create the frameworks you need for a specific case, don’t just grab one off the rack
- stress “synthesis vs. summary”
- “get off the fence” – state a point of view or recommendation
- Don’t be timid, especially about numbers
 - go analytical early
 - show confidence, eagerness in analysis
 - unsuccessful applicants were “unwilling to dig into numbers,” “substantially less analysis” than at other schools; “one blew written case – no numbers at all”
- Don’t just be a “nice” student
 - if all they can say about you after the interview is that you’re “nice,” you’ve lost
 - having them *like* you is not enough for them to sell you to others
 - show something unique – “a spike of interest or skill,” some inner strength, a drive
- Ask “good, tough questions at company presentations”
 - They take notice – and they take names!

A Compact Consulting Library

- **The Pyramid Principle**, Barbara Minto, Prentice Hall 2002
- **How Would You Move Mount Fuji? Microsoft’s Cult of the Puzzle**, William Poundstone, Little Brown & Company 2003
- **Say it with Charts (4th edition)**, Gene Zelazny, McGraw-Hill 2001
- **Say it with Presentations**, Gene Zelazny, McGraw-Hill 2000
- **The McKinsey Way**, Ethan Rasiel, McGraw-Hill 1999
- **The McKinsey Mind**, Ethan Rasiel, McGraw-Hill 2002
- **Thinking Visually: Business Applications of 14 Core Diagrams**, Malcolm Craig, Thomson 2000
- **Smart Questions: Learn to ask the right questions for powerful results**, Gerald Nadler & William Chandon, Jossey-Bass 2004
- **The Visual Display of Quantitative Information (2nd edition)**, Edward Tufte, Cheshire Press 2001
- **The Excel Bible** [various editions], John Walkenbach, Wiley 2003
- **De Bono’s Thinking Course**, Edward De Bono, Facts on File 1994

Everyone is a Consultant

(source: Wetfeet website in Emory Library eResources)

These days, it seems like just about everybody and her brother professes to be a consultant. "Hold on," you say. "How can Aunt Suzie, who has her own consulting business, and those people in the blue suits at the famous New York addresses all be doing the same thing?" All of them may really be consultants, but you can bet they're not all doing the same thing. Just as there are many different sorts of doctors, there are consultants with all manners of expertise and specialty.

This industry profile deals primarily with management consultants, the elite consulting firms that make the most money advising the biggest and most powerful companies in the world. However, there are a number of specialized groupings within the management consulting field and many more types of consulting firms that provide specialized advice and services in other areas. To help you get a better handle on the options, we've grouped the consulting world into several different segments. Keep in mind, however, that such groupings are arbitrary. Firms in one group can and do compete directly with players in other segments.

Industry Elite

This group is populated by a few top strategy firms and a host of smaller challengers. The bulk of these firms' work consists of providing strategic or operational advice to top executive officers in Fortune 500 companies. For this, they charge the highest fees and enjoy the most prestige. They also have the fattest attitudes, work the most intense hours, and take home the most pay. Representative firms include Accenture, A.T.Kearney, Bain & Co., Booz Allen Hamilton, The Boston Consulting Group, Deloitte Consulting, Marakon Associates, Mercer Management Consulting, McKinsey & Co., and Monitor Group.

Boutique Strategy Firms

Firms that specialize along industry or functional lines. Although often smaller, these firms may have top reputations and do the same operations and strategy work the elite firms do, but with more of an industry focus. Representative firms include Cornerstone Research (litigation support), Gartner Group (high-tech research), and Pittiglio Rabin Todd & McGrath (high-tech operations).

Technology and Systems Consulting Firms

Firms here typically take on large projects to design, implement, and manage their clients' information and computer systems. Technology consulting often takes place in the bowels of the client organization. In general, this kind of consulting job requires large teams of people who actually do the computer work. As a result, there are usually more opportunities for people from undergraduate or technical backgrounds than from MBA backgrounds, but it's not the same high-prestige work strategy consultants are known for. Representative firms include Accenture, BearingPoint, Capgemini, Computer Sciences Corporation, EDS, HP Technology Solutions Group, IBM Global Services, Novell, Oracle, SAP, and Synopsis.

Human Resources Consulting

This can include everything from designing an employee evaluation and compensation system to conducting organizational effectiveness training to helping an organization through a significant change event, such as a merger. HR consultants often work as long and travel as much as their counterparts in general management consulting. Representative firms include Accenture (Change Management Group), Buck Consultants, Hay Group, Hewitt Associates, Mercer Human Resource Consulting, Towers Perrin, and Watson Wyatt & Company.

Top-10 Consulting Firms, by 2003 Revenues

(source: Consultants News, May 2003)

1. IBM
2. Accenture
3. Deloitte Touche Tohmatsu
4. Cap Gemini Ernst & Young
5. CSC
6. Hewlett-Packard
7. McKinsey & Company
8. BearingPoint
9. Mercer
10. LogicaCMG

Note: This ranking is based on estimates of company revenue; most companies listed are private and do not release revenue figures.

I-Banking vs. Consulting vs. VC

Thinking about careers in investment banking, management consulting, and/or venture capital?
Here's how they stack up (source: Wetfeet website in Emory Library eResources):

I-banking: Work with numbers.
Management consulting: Work with clients.
VC: Work with entrepreneurs.

I-banking: Make a lot of deals.
Management consulting: Don't make any deals.
VC: Make the right deals.

I-banking: Work late.
Management consulting: Work in teams.
VC: Work alone or in partnership.

I-banking: Satisfaction comes in finding time for a nap.
Management consulting: Satisfaction comes from promoting change in client companies.
VC: Satisfaction comes from growing companies.

I-banking: Work 24/7.
Management consulting: Work seven days a week.
VC: Work five days a week.

I-banking: Variable.
Management consulting: Lots of travel.
VC: Little travel.

I-banking: Learn about I-banking.
Management consulting: Learn about several industries.
VC: Learn about several industries.

I-banking: Compensation mind-boggling.
Management consulting: Compensation great.
VC: Compensation deferred.

I-banking: No time for lunch or dinner—go to the vending machine for a snack.
Management consulting: No time for lunch.
VC: No time for lunch.

I-banking: Check out at 33.
Management consulting: Check out at 49.
VC: Check out at 56.

What consultants love (and hate) about consulting...

(source: Wetfeet's website in Emory Library eResources)

What's Great

Love My Job

Most people who work for consulting firms talk about how intellectually stimulating their work is. They enjoy the challenge of going into new settings and facing some of the most difficult issues business leaders have to deal with. Although most don't admit it openly, there's also a palpable excitement associated with being able to sit down with a CEO of a large firm and tell him or her what to do. Consultants also take pride in seeing the impact their advice has on clients' businesses.

People Power

The key resource of consulting firms, and some would say the only resource, is their people. All of the top-tier firms fill their offices by skimming the cream of the undergraduate and business school elite. Insiders tell us that working at a consulting firm is very much like being on a team with the best people from school: "People are universally bright, interesting, hardworking, and motivated." Many insiders also say they enjoy socializing with their colleagues.

Learning Environment

One of the thrills for many consultants is the constant learning that comes with the consulting workload. Whether you're learning about a new company or industry, talking to people in various parts of a client organization, or brainstorming ways to deal with challenging technical problems, consulting offers a steady diet of new cases and settings. Many consultants believe they wouldn't face such a wide variety of challenges in another profession.

What's To Hate

A Dog's Life

The travel, the hours, and the difficulty of maintaining a personal life top everyone's list of consulting complaints. "There is limited life outside of work," says one insider. It's not that people in other professions don't work long, hard hours, but the consulting lifestyle, which often requires the consultant to be out of town four days a week for months at a time, is hard to maintain over the long run, especially for people with families. Some individuals actually thrive on the pace and excitement of the energetic schedule. For many others, a few years are about all they want to put up with.

"I'd Rather Be . . ."

Consultants often express their desire to get into the thick of managing a company and start making management decisions. This may be partly a case of the grass being greener, but after giving advice to so many companies and executives, many consultants are eager to try their hand from the client side. They also complain about not getting the in-depth experience they'd get if

they worked at a company. A large number of consultants leave after a few years to start businesses or work in operating companies.

What difference does it make?

Most people who go into consulting as a career say they do valuable, highly meaningful work. However, a common complaint among ex-consultants is that the work didn't seem as meaningful to them as they would have liked. As one explains, "I felt like we did a lot of ephemeral strategy stuff for big companies that didn't really amount to much. I really didn't want to be working with conservative, old Fortune 500 companies. I wanted to be making a difference in a smaller setting, with real people."

Getting the Interview

First and foremost, create a good résumé. Highlight achievements, not titles or job descriptions. Also, use action-verbs and consulting-language while describing your achievements. Consulting firms are looking for smart, articulate people who have demonstrated leadership & professional achievement, and are fun to be with.

As the Career Management Center, and the school in general, would have been impressing upon you from Day One, networking like crazy is important to get your foot in the door. It would be advisable, however, not to expend excessive networking energies on McKinsey, BCG and Bain, except to gather more information about these firms.

McKinsey's central recruiting office shuffles through literally thousands of applications to pick the ones with the highest GMAT scores, most interesting and exceptional career progressions, and impressive case responses. BCG is very open about its policy of using the GMAT score as one of the first filtering-criteria for first-round interview invitations. It expressly forbids candidates from contacting its consultants. Bain reaches out on its own, and contacts the people that it feels it may want to interview. It seeks out interesting résumés, and actively seeks diversity. If you are a liberal art major who used to work with an NGO in Nigeria before business school, have exceptional demonstrated achievements and a good GMAT score, Bain will absolutely love you.

This is not to belittle the importance of networking, of course. Far from it. We hope that the above information will help you focus your networking efforts in the right direction.

Networking will yield the highest returns with firms that are more sharply focused on "fit" than other firms. These would include the likes of A.T.Kearney, and to some extent Deloitte, which are very particular about the type of people that they let in through their doors.

Networking can also tip the balance in your favor when dealing with smaller firms like Adjoined, that have a more short-term view of their requirements based on the projects they have, or are likely to have in a few months. Since they are focused so much on "experience and skills fit", as opposed to "cultural fit", only extensive networking can help you get into their minds and know what they are looking for. Once you know that, you can tailor your story to suit their needs.

Thus, take every opportunity – career fairs, company presentations and company-sponsored events – to build relationships. In fact, instead of waiting for these opportunities to land in your lap, take the initiative and reach out. Use your personal contacts, and those of other GBS students, staff and faculty; use the alumni directory. Call them, and set up informational interviews.

But before you make that call, make sure you know a lot about the organization. In other words, do your research before you take that first step. When you do meet them, give them a good reason to remember you: using a custom-tailored pitch, talking knowledgeably about a project they are working on, or impressing them in some other way.

Networking at Events (such as those organized by GBS)

Before the Event

- Mindset – have a goal in mind, but be open to possibilities
- Try to go as a team
- Research the event and sponsor(s)
- Be targeted

During the Event

- Enter a room with confidence
- Enter as a group of two or more
- Be aware of what you can offer, and do so
- Be open and curious – within limits, being personal is okay
- Ask relevant questions
- Smile, and enjoy being you!

Exit Strategies

- Don't monopolize – Don't be monopolized
- Be respectful
- Lean away, thank the person, move on

After the event

- Keep your promises
- Track your contacts
- Share info with friends

Some General Tips from the Experts

- Scan while talking – focus while listening
- Eat before you go or hide and eat before mingling
- Drink in the left, name tag on the right
- Act like a host – introduce a new person to someone you just met
- Put reminder notes on your cards
- Be sure to greet the organizer(s) – thank her/him and meet whomever she/he is with
- Remember – 88% of business execs get nervous at these events – be yourself and enjoy!

The Interview Process

Your impressive résumé and excellent networking may get you the interview, but they won't get you the job. Consulting firms know only too well that the résumé is at best a two-dimensional representation of a multi-dimensional person. And, while your networking efforts will give somewhat more of a glimpse into your dynamic personality, they want to be able to compare several candidates in a controlled environment.

The interview process is especially important for the consulting industry as consultants spend most of their day interacting with clients and colleagues, and must themselves constantly interview client employees and executives. Besides, the case-interview, through the simulation of a real business problem, provides insights into your thought-process.

The actual interview process may be different for different firms, but there are some common elements. "Typically", the interview process would involve several "rounds" with successive elimination. You may expect the first round to be composed of two 30-mins or 45-mins interviews. Each of these interviews is likely to have a behavioral part, and a case-analysis part. The behavioral: case split is usually between 1:4 and 1:3 (i.e the behavioral part could be between one-fifth and one-fourth of the interview). The behavioral part usually precedes the case, so you should be able to settle down. The subsequent rounds of interviews should be similar to the first round in format, but would usually include more interviews, to the point of being interview-marathons.

Getting inside the interviewer's mind

Your interviewer is constantly thinking:

1. Does this person have the intellectual horsepower?
 - i. How is your case analysis? Can you handle numbers, identify the most important concepts, and prioritize issues?
 - ii. Is your line of reasoning clear and sensible? Does it lend itself to a sound and actionable recommendation?
2. Do I want to work with this person?
 - i. Are you energetic and engaged? Engaging?
 - ii. Do you have sense of humor and easy-rapport?
3. Can I put this person in front of the client?
 - i. Is your thinking structured?
 - ii. Are you able to tell a clear and concise story with facts and data?
 - iii. Do you stand tough under pressure and flexible in face of new facts?

Behavioral Interview

The first part (say 10 mts. of the 45 mts. slot) of the interview is typically used for a “behavioral” or “experiential” conversation. The interviewer is judging you on likeability and “fit” (the reason why it’s also called a fit interview). (S)he is assessing whether what it will be like to work and travel with you. Often called the “airport test”, the assessment seeks to answer the question, “How would I feel if I were snowed in with this person for hours at an airport in no-man’s land? Would we have a lot to talk about, or would I want to be in a coma so I wouldn’t have to talk?”

The interviewer is also measuring your maturity, poise, and (hail Kembre!) communication skills, while thinking, “Would I be comfortable putting this candidate in front of senior management at my client organization?”

Be prepared to discuss anything that’s on your résumé. The corollary is that if it’s not interesting and relevant, it should not be on your résumé.

Consulting firms look for “low-risk” hires. You are low-risk if you have worked in consulting, liked it, and want to return or if you’ve done your homework. Their biggest fear is that they’ll spend a lot of time and money in training you, only to find you bailing out in 6-months as consulting didn’t turn out to be what you expected.

If you do not have consulting experience, be sure to highlight:

- Project-oriented experience
- Management experience
- Experience with “new”/ unfamiliar territory.
- Experiences that have quantified impact

Remember, you want to get labeled. If you told the interviewer that you used to sing in a music band when you were a teenager, then while deliberating on your candidature (s)he will remember you as “the singer”. Everything you talked about will come back to him/ her in a flash. If on seeing your name (s)he has to think, “Which one was (s)he?”, you are as good as out.

The Basics

- Firm handshake – not too tight, definitely not limp.
- Smile.
- Maintain eye-contact.
- Gucci Loafers ;-)

Sample questions

- Tell me about yourself.
→ Most interviews will start with this question. It is such a predictable question that it is absolutely amazing how many candidates falter on it...either fumbling to find appropriate

items and words, or diving into a 5-minute monologue. Either can wreck your interview. This need not be your “elevator pitch”, but you need to have prepared a 1½-2 minute answer by prioritizing and picking out bullet points from your résumé. Remember, this is your golden opportunity to decide the direction of the interview.

- Have you ever failed at anything?
 - Of course, everybody has failed at something, sometime. Be prepared with the story of a failure: how you failed, what you learned from it, and then, how you turned it into a success. Remember, action reflects character. Your interviewer is most interested in knowing about what you learned from the failure, and how you reacted to it. The only point of caution: steer clear of personal or academic failures.
- With what other firms are you interviewing?
 - You’d be stupid not to interview with other firms. It’s absolutely fine to mention interviews with other firms in either the same or higher tiers. However, clutch with both hands this opportunity to tell the interviewer that his/ her firm is your first choice, and the reasons thereof.
- Within what other industries are you interviewing?
 - This one may appear to be an awkward one to answer if you are interviewing in other industries. But the fact is that investment banking, strategic planning, and (to some extent) brand management look for similar qualities in candidates. McKinsey and BCG, for instance, consider Goldman Sachs to be their biggest competitor. Thus, if you are interviewing for these functions, don’t shy away from mentioning it. Just remember to affirm consulting, and that firm are your first choice, and why.
- Why do you want to become a consultant?
 - You know that you will be asked this question. And the interviewer knows that you know. You should have given this answer a great deal of thought long before you walked into the interview-room. Any hesitation – even a disruption of eye-contact – could be disastrous for your interview.
- What do you have to offer to our firm/ What do you bring to the table?
 - You will be asked this question too. Just like the above question, you should be well-prepared to answer it, and not show a moment’s hesitation.
- Tell me about a time when you demonstrated leadership.
 - You are a leader. That’s why you are at Goizueta. You have shown leadership-qualities (initiative, anticipation of opportunities other don’t, articulating a vision and getting people to commit to it, big picture perspective and integrating individual efforts to maximize synergies, building a team and inspiring them...) on numerous occasions. Before the interview, you need to figure out which one of those occasions most significantly demonstrates your leadership. The impact you made is important as is ????. Oh, just a note of caution: please don’t confuse project management with leadership.

- Tell me about a time when you had a conflict with another person in a business setting. How did you resolve it?
 - Have your story ready. Remember, you are the protagonist. There is this conflict that is preventing you from reaching your objective. Then, you **do** something about it, which leads to a pleasant outcome. What you do shows your character. That's what the interviewer is most interested in knowing about. So, lay out the context and problem succinctly and concisely, and spend the most airtime talking about your action. Of course, don't forget to close the deal by summarizing the result in a sentence or two.
- Tell me about a time when you demonstrated initiative.
 - As above.
- Tell me about a time when you analyzed a problem and determined a solution.
 - As above.
- What will your teammates say about you?
 - Your golden opportunity to sell yourself! Just remember to think from the perspective of your teammates, and also to back each adjective with a concrete story or anecdote.
- What do you think you would like the most about being a consultant? The least?
 - For the first part, think back to the answer for "why do you want to become a consultant", and pick the one that is fundamental to your decision. Which one you pick is not nearly as important as how passionately you present it. Of course any hesitation, or lack of prior thought on the topic will be big negatives. What you would like the least about consulting is an interesting question. It is really a challenge that the interviewer throws at you, to assess your poise, and how you handle yourself in difficult situations. Feel free to be creative about the answer, while making sure that your answer does not contain any "essence of consulting" items like the ones discussed in "why do you want to become a consultant" question.
- If you won the lottery and didn't have to work, what would you do?
 - This question has a dual-purpose: firstly, it assesses whether you are a fun-person, and secondly, whether you would be happy as a consultant or would the job take you too far away from things you value. If, for instance, you say you'd spend your time traveling around the world, that may make consulting and the travel involved more bearable for you. So, while it is important to show that you are human, not some nerd, it is equally important to give this question some serious thought.
- What accomplishment are you most proud of?
 - Be prepared with the story. Just remember that though the question is "what", the interviewer is really interested in knowing "why".
- Why did you decide to do the MBA? Why Goizueta?
 - You have already thought about these question, and wrote lengthy essays about them (when you applied for admission to the MBA program). Now it is time to revisit those

answers and jot down key points. Though it is not being suggested that you “learn” the answer, it is highly recommended to memorize the bullet points.

- Who is/ was Goizueta?
 - You better know a good bit about Goizueta. Roberto Crispulo Goizueta, whom the school is named after, was arguably the most successful CEO of The Coca-Cola Company. A Cuban chemical engineer at Coca-Cola’s Havana operations, he fled his homeland in 1961 when Fidel Castro gained power and started nationalizing companies. Arriving in the United States with a good education, a chemist’s job at Coca-Cola, \$40, and 100 shares of Coca-Cola’s stock, he worked his way up the ladder in the cola company, and ultimately became it’s Chief Executive Officer. Under his 16-year leadership as the CEO, Coca-Cola’s market-value soared from \$4-billion to over \$145-billion.
- What are the two most important things that you have learnt at Goizueta?
 - Again, “what” is less important than “why”. Also, try not to make those two things academic. You may be incredibly proud of having learnt how to calculate income-elasticity of action-movies, but that is unlikely to impress your interviewer. Personal growth stories are much more impactful than technical skills. Frankly, if you haven’t learnt something profound, something that has changed you forever, you have wasted your years at business-school.
- Why did you intern in the particular industry/ company/ function that you did?
 - Think back to what kind of experiences make you a low-risk candidate, and how those map onto your actual experiences.
- (McKinsey) If the accomplishment you are most proud of were to be published in a newspaper, or broadcast over radio, what would be the headline? After you tell the headline, summarize what you did in 3 bullet points.
 - This is the same as “What accomplishment are you most proud of?”, only in a different format. If you are going to interview with McKinsey, you should be aware of this format before you walk in that door.
- (McKinsey) If you had to pick a situation where you made a personal impact on an organization, and it were to be published in a newspaper, or broadcast over radio, what would be the headline? After you tell the headline, summarize what you did in 3 bullet points.
 - This is another example of McKinsey’s “newspaper headline” question. The fact is, McKinsey would use any “tell me a time when...” question, and mold it to a “newspaper headline” question. This helps it to assess your achievements, prioritization, articulation and succinctness.
- Why should I hire you?
 - Before you launch into a laundry-list of skills and attributes, state that they should hire you because you want to be a consultant, followed by a reiteration of your reasons for wanting to be a consultant. If they aren’t convinced that consulting is what you want to do, it doesn’t matter how talented or brilliant you are; it is just not worth it for them to

extend an offer to you. Thus, first state that you want to be a consultant, and only then point to your consultant-like qualities.

Close the deal

Towards the end of the interview, i.e. after the experiential and case portions, the interviewer will ask if you have any questions for him/ her. This is a great opportunity to demonstrate your knowledge and keen interest in consulting in general, and the firm in particular.

However, before you ask your question, if there is anything critical that you didn't get a chance to bring up in the interview, this is the time for it. Simply say, "Before I ask my first question, I want to make sure you understand..." Just get it out before you walk out of the interview room.

Coming to the questions you are going to ask, these will be based on the research that you have done on the industry and the company. Thus, make this research a part of your interview preparation. Scour the company's web-site, talk with company-representatives, speak with alumni, read company-literature, attend the company-presentation, and search Wall Street Journal/ Financial Times and Datamonitor/ Lexis-Nexis. Please do **not** ask any questions the answers to which can be easily found on the Web or in company literature.

Case Interview

The human mind is wondrous. It starts working the moment you are born, and doesn't stop till you encounter a case-question.

Jokes apart, acing or “cracking” the case is the key to success in a consulting interview. The “case” is typically a business situation or problem in search of an answer. Your interviewer explains the situation, and expects you to use your logic, intellect and the ability to structure ambiguity to come up with a solution.

Of course, it is not a one-way street. It is a conversation, where you may ask for clarifications or specific additional information from the interviewer. In essence, it is a simulation, or role-play, where the interviewer is the client or engagement manager who has all the information you'll ever get about the situation, and you are the consultant who has to make sense of all the information and provide actionable recommendations.

Personally, I think a case-interview is the best form of interview. After all, this is probably the only kind of interview in which you, the candidate, gets to ask all (almost) of the questions.

Since business problems are complex and multi-faceted, there are different approaches that one could take. Thus, there is no single “best” solution or “correct answer” to these questions. Several very different solutions based on different approaches could all be correct.

Objective

McKinsey's stated objectives, or assessment criteria, for the case-interview are:

- How you go about structuring a tough, often ambiguous, business problem
- How you think about which issues are important in the problem
- How you deal with and process data (numerical and otherwise)
- How you think about making conclusions and recommending actions to solve the problem
- How you articulate your thoughts during an interactive problem solving discussion

Similarly, BCG says it is not looking for “the answer”, but for:

Analytics

- Provide structure to unstructured problems.
- Break problems into components.
- Apply transparent, logical thinking to each component.
- Synthesize discussion into solution.

Poise

- Appear excited by the kinds of issues consultants face.
- Are not intimidated by process or problems.
- Assimilate information quickly and effectively.
- Ask insightful questions.

Creativity

- Apply a unique perspective to business situations.
- See the big picture.
- Draw conclusions from partial information.
- Make assumptions, see patterns, and generate hypotheses.

As you will note from the above, the firms are looking for similar characteristics, whatever different ways they decide to describe them in.

Before the interview

- Practice with fellow-students.
- Practice with recent alumni.
- Practice with friends/ acquaintances at consulting firms.
- Observe the “case-aces” and how they handle it.
- Ask your practice “interviewer” to be as tough on you as possible.

The wrong answer

You will be told again and again that in a case-interview, there are no right answers. What not many will tell you is: there **are** wrong answers. The following could slam the door in your face:

- Ignoring or forgetting important facts.
- Not recognizing that some material may be extraneous.
- Defending impractical solutions.
- Force-fitting a framework that just doesn’t work.
- Asking a “naked question”, i.e. asking a question without stating the rationale or hypothesis.
- Hiding from the details or numbers.
- Covering one issue without mentioning and prioritizing all key issues.
- Forgetting to show you’re an enjoyable person (in addition to being a mean case-cracking machine)
- Unstructured answer – a result of inadequate preparation.
- Narrowly-defined problem. e.g. – marketing people focusing only on marketing issues like positioning or people with financial background focusing on financing issues and ignoring the strategic reasons for an acquisition.
- Not walking the interviewer through your thought-process.
- Lack of conviction.

Getting the “process” right

The general approach that you may want to take for the case-question is:

- Listen to the introduction – do not think ahead to your answers.
- Take notes, and (if necessary) ask a couple of clarifying questions.
- Organize your thoughts and structure the problem.

- Pick one branch to probe, develop hypotheses, ask for relevant facts, defend/ refine/ reject the hypothesis based on the new information, probe further, and describe implications. Move to the next branch, rinse and repeat.
- Pull it together: try to answer the big-picture issue with a reasonable, actionable conclusion.

The following steps provide a robust problem-solving process:

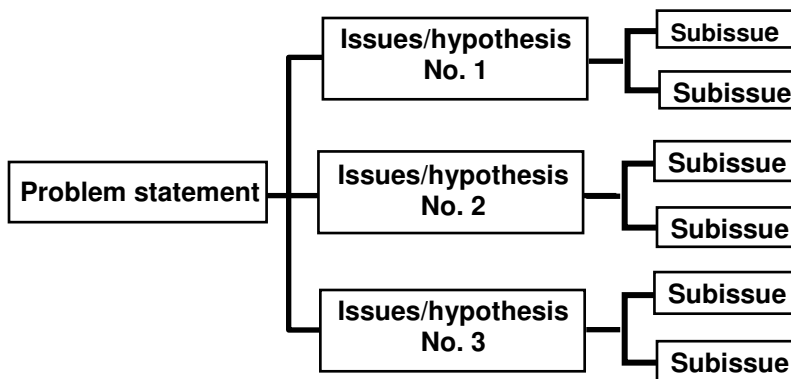
Step 1 - State the problem

- Ask permission to take notes, and DO take notes.
- Listen carefully as the interviewer states the problem.
- Ask top-level, clarifying questions if you haven't understood something.
- Paraphrase the problem and make sure you have it right. A good problem statement is:
 - A leading question or firm hypothesis.
 - Specific, not general.
 - Not a statement of fact, or non-disputable assertion.
 - Actionable.
 - Focuses on what the decision-maker needs to move forward.

Step 2 - Disaggregate the issues

1. Ask for a couple of minutes to structure your thoughts.
2. Use issue-trees to structure the problem.
3. Describe your approach to the interviewer as you proceed. (S)he can't read your mind!
4. State your hypotheses as crisply as possible
5. Only use frameworks if they are appropriate – do not force fit
6. The ideas are important, not the framework. “I think we should look at the power of buyers and industry competitiveness” is better than “I'd like to apply part of the Porter Five Forces framework”
7. Feel free to draw logical assumptions, understanding their relevance, and testing them openly with the interviewer. Sometimes the interviewer will actually try to pull assumptions out of you (responds to your questions with “What do you think?”)

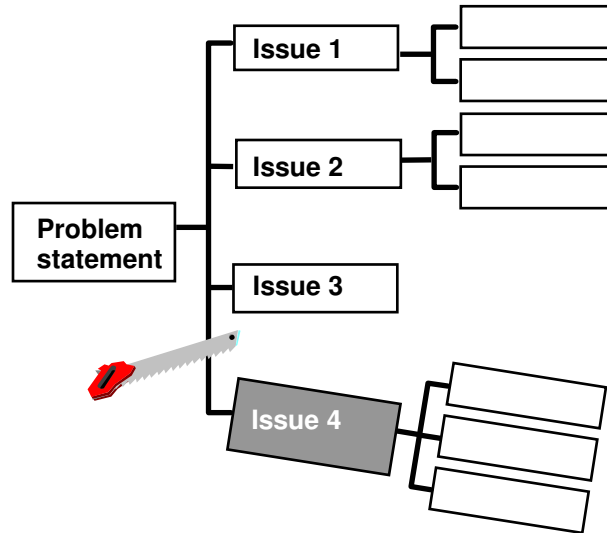
Why use issue-trees?



1. To break a problem into component parts so that:

- a. Problem-solving work can be divided into intellectually manageable pieces.
 - b. Priorities can be set among the parts.
 - c. Responsibilities can be allocated to individuals.
2. To ensure that the integrity of the problem solving is maintained.
 - a. Solving the parts will really solve the problem.
 - b. The parts are MECE (mutually exclusive and collectively exhaustive) .

Step 3 - Eliminate all non-key issues



Why?

- First step in constant, interactive refinement process.
- Focuses your effort on what is most important.

Do's and Don't's

- Always ask yourself “so what” . . . but also ask yourself what you might have missed.
- Tell the interviewer what you are cutting and why.

Step 4 - Conduct critical analysis, porpoise between data and hypothesis

Do's

- Be hypothesis-driven and end-products oriented.
- “Porpoise” frequently between hypothesis and data.
- Keep the analyses as simple as you can. Be suspicious of huge linear programs and their ilk.
- Do order of magnitude estimates before you start detailed analyses.
- Use 80/20 and back-of-envelope thinking.
- Score creativity points. Ancillary issues can be documented in the parking lot.

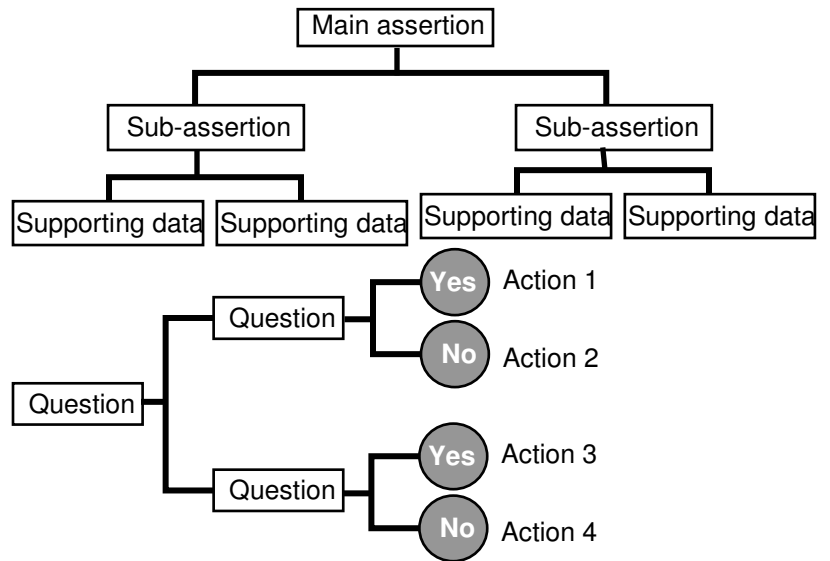
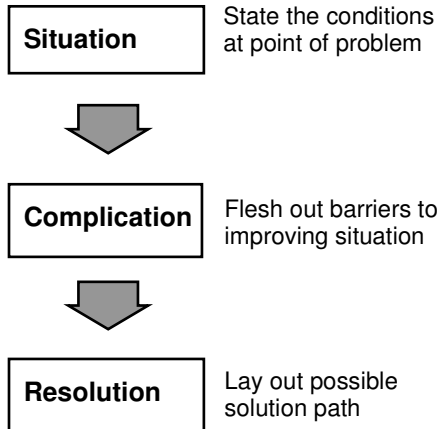
Don't's

- Do not just “run the numbers” – ask yourself “what questions am I trying to answer?”
- Don’t work with “softs” when there are “hards” available.

- Do not chase your tail.
- Do you really need to calculate the WACC?
- Do not miss the forest for the trees.
- Beware of “polishing dirt”.

Step 5 - Synthesize findings and build argument

Use **situation-complication-resolution format** AND/OR **Pyramid structure/ Issue tree**



Some simple tactics

- Carry graph paper and a pen to the interview.
- Be coachable. Listen carefully to the clues your interviewer will pass-on along the way.
- Graphically present your case.
- If you really want to blow your interviewer away, remember a simple little fact: consultants love 2x2 matrices. See if you can draw one!
- Be prepared to provide a summary at a moment’s notice (and tell them the answer first).
- Be prepared for a part II (and III, IV...)

What to do in a crisis

If you find yourself in a crisis, DON’T PANIC (not unlike H2G2). All hope is not lost. You can come back from a case-interview crisis.

- If you have no idea what the interviewer is talking about:
 - Don’t let it go too far.
 - Ask clarifying questions, drawing upon any personal knowledge or information from the case.

- If you find yourself babbling aimlessly:
 - Pause!
 - Revisit your structure, review the information you have already gathered, and get back on track.
 - Think aloud, if necessary.
- If you miss a critical issue in the case:
 - Lay out a plan of attack for analyzing the issue (recognizing time constraints), or generate a hypothesis, if appropriate.
 - Discuss what initial assumptions would be challenged.
- If you screw up the math:
 - Stop, and do it longhand.
 - If necessary (and appropriate), round the numbers to quickly arrive at an estimate.

Public Math

Goizueta Plus (or G+ as it is affectionately called) helps all of us to build excellent public speaking skills. Which is just as well, since communication skill is one of the characteristics consulting firms look for in candidates. Another important skill consulting firms seek is, what Matt Finger, Goizueta MBA '05 and GCA President 2004-05, calls “public math”.

Doing math on paper in privacy of the GMAT exam cubicle is one thing, doing it under the constant gaze of several consultants, quite another. It can be quite distracting, even unnerving, and may induce errors into your calculations.

So what does one do about it? Luckily, you don't have to be Nash, Ramanujan or Einstein to excel in public math of the standard expected in consulting interviews. Just follow the following 5 steps, and you should be on top of things, when the time comes:

1. Practice.
2. Practice. Forget that the calculator was ever invented. Much less Microsoft Excel. Remind yourself that each paper you use imposes huge costs on the environment. Try doing all calculations, from Economics to Decision Analysis, in your head.
3. Practice. Whenever you go grocery shopping, try adding up the prices of items as the cashier scans them. See if you can reach the answer before that cash register.
4. Practice. Most importantly, remember it is “public” math. Practice in groups, in front of the class, on the board...
5. Use the tricks and techniques below, and yeah...practice using them.

It's the zeroes, it's always the zeroes

Are you often off by zeroes, while doing math in your head? From Ph.D.'s to undergraduates, it's the zeroes that people have trouble with. Try using the number table below for all practice cases.

Number Table (by Maria Teresa Peterson, Harvard MRP '01)

	10	100	1,000	10,000	100,000
10	100	1,000	10,000	100,000	1,000,000
100	1,000	10,000	100,000	1,000,000	10,000,000
1,000	10,000	100,000	1,000,000	10,000,000	100,000,000
10,000	100,000	1,000,000	10,000,000	100,000,000	1,000,000,000
100,000	1,000,000	10,000,000	100,000,000	1,000,000,000	

Dealing with fractions

Often the case-interview will include calculations involving fractions. These may often baffle you, and make you get down to doing the calculation on paper. That is fine. However, most, if not all, of the calculations incorporated in a case-question are designed to be easily calculable in

your head. You may find the following table useful when dealing with calculations involving fractions:

Fraction Tables (by Vivek Pundir, Goizueta MBA '06)

Resolving the One		Synthesizing the One	
1/ 2	= 0.5	0.5 X 2	= 1
1/ 3	= 0.33	0.33 X 3	= 1
1/ 4	= 0.25	0.25 X 4	= 1
1/ 5	= 0.2	0.2 X 5	= 1
1/ 6	= 0.16	0.16 X 6	= 1
1/ 7	= 0.14	0.14 X 7	= 1
1/ 8	= 0.125	0.125 X 8	= 1
1/ 9	= 0.11	0.11 X 9	= 1
1/10	= 0.1	0.1 X 10	= 1
1/11	= 0.09	0.09 X 11	= 1
1/12	= 0.08	0.08 X 12	= 1
1/13	= 0.077	0.077 X 13	= 1
1/14	= 0.07	0.07 X 14	= 1

The best thing about the fraction tables is that the numbers/ calculation doesn't need to be in fractions at all! Consider this: You need to calculate the profits from selling an item sold at \$25 per unit to 1.4 million customers, when fixed costs are \$14 million and variable costs are \$8 per unit.

Now, you could follow the conventional route (I bet you'll have to use your pen and paper) and do the following calculations:

Revenues = \$25 X 1.4 million = \$35 million

Costs = \$14 million + \$8 X 1.4 million = \$14 million + \$11.2 million = \$25.2 million

Profit = \$35 million - \$25.2 million = \$9.8 million

Or you could just do the math in your mind:

Fixed cost per unit = \$14 million / 1.4 million = \$10

Total cost per unit = \$10 + \$8 = \$18

Profit per unit = \$25 - \$18 = \$7

Total profit = 1.4 million X \$7 = \$10 million (yes, from the table, 0.14 X 7 = 1)

Of course \$9.8 million is more accurate an answer. However, it takes more time to reach that answer. Besides, it complicates any further calculations that you may be required to do. This also illustrates a deeper point: Consulting is not about the 100% solution or the "best" solution. It is but about the most practical solution.

What's it with consultants and 15?

For some odd reason, consultants seem to love the number 15. At least they use it very often in the case-interview calculations. Thus, it will be beneficial if you learn to love this number, as well (in case you don't remember the table of 15, which is quite easy). To help you develop love

and affection for this popular number, and to help you make it love you in return, here are the most common calculations that you may encounter in the case interview:

The 15 Sheet

15 X 2 = 30
15 X 3 = 45
15 X 4 = 60
15 X 5 = 75
15 X 6 = 90
15 X 7 = 105
15 X 15 = 225

Size doesn't matter

Many case-interviews will involve some sort of market-sizing (or estimation) exercise. The important thing about market-sizing, as about case-interviews in general, is that the answer you come up with is not important. It doesn't matter what you come-up with. What does is how you reach there. Your interviewer is grading you on the process, on your way of thinking, not on your knowledge of any particular industry or market.

In particular, the interviewer is looking for your comfort with ambiguity, ability to structure, facility with numbers, and poise.

Of course, you may need starting points to structure the ambiguous problem, and follow any sort of process at all. The following statistics will help you get started:

Market-sizing assumptions

- Population of the world = 6 billion
- Population of USA = anywhere between 250-300 millions (whatever makes calculations easy)
- Male : Female ratio for USA = 50 : 50
- Age-wise breakdown:
 - Under 18 = 25%
 - 18-25 = 10%
 - 25-65 = 50%
 - Over 65 = 15%
- Population of major cities:
 - New York = 20 million
 - Los Angeles = 15 million
 - Chicago = 8 million
 - DC/ Boston/ Philadelphia = 5 million
 - Atlanta = 500 thousand???
- Population of other countries:
 - China = 1.2 billion
 - India = 1 billion
 - Canada = 30 million
 - Mexico = 100 million
- Households in USA = 100 millions
- Percent of households that own a VCR = 90%
- Percent of households that have cable TV = 60%
- Percent of households that own a PC = 60%
- Percent of households that are connected to the Internet = 50%
- Size of economy:
 - USA = \$8 trillion???
 - China = \$3.5 trillion

- Japan = \$3 trillion
- Altitudes
 - Height of Mt. Everest = Between 29,000 and 30,000 feet
 - Depth of Mariana Trench = Between 35,000 and 36,000 feet
- Miscellaneous
 - Earth's Diameter = 8,000 miles
 - Length of Nile (longest river) = 4,000 miles
 - Circulation of The Wall Street Journal = 2 million
- Measurements
 - 1 Mile = 1760 Yards
 - 1 Yard = 3 Feet
 - 1 Foot = 12 Inches
 - 1 Gallon = 4 Quarts
 - 1 Quart = 2 Pints
 - 1 Pint/ Pound = 16 Ounces

Sample of market-sizing question

Q. How many razor-blades are sold in the United States every year?

One possible approach:

Population of USA = 300 million

Males = 50% of 300 million = 150 million

Males over 18 (assuming only 18+ use blades) = 75% of 150 million = 110 million

Assuming that, 70% use shaving blades (others go to barber, don't shave etc), users = 80 million

Assuming users shave every once in 2 days on average = 40 million shaves/ day

Assuming one blade is good for 2 shaves on average = 20 million blades/ day

Blades sold per year = 365 x 20 million = 7.3 billion

Brainteasers

Though not very popular anymore, “brainteasers” do crop up on occasion in consulting interviews. So be mentally prepared to be given one. Most brainteasers can be handled using a structured analytical thinking (stick to the basics). Here are some samples of brainteasers from Tuck’s case-book:

Steep Interest Rates

World real interest rates rose by about 1/2% from the time of the Pharaohs till the 1950s. Since then, they have risen by about 4%. Why do you think this has happened?

Interviewer Notes

This is a perplexing question with a relatively simple answer. In the last four decades, the demand for money has risen due to a large number of entrepreneurial endeavors, corporate mergers and acquisitions, and global expansion of businesses. The world money supply, however, has not kept pace with this. As a result, the interest rates (the "price" of money) have gone up.

Manholes

Why are manhole covers round?

Interviewer Notes

- So that they do not accidentally fall into the manhole.
- You can roll covers instead of carrying them.
- Round shapes will offer the widest opening for the least total opening area. This will help reduce metal costs.

Soda cans

Why are soda cans cylindrical?

Interviewer Notes

- To allow for easier gripping.
- To allow easier, denser packing in dispensing machines.
- To avoid sharp edges that might cut hands.
- Circular surfaces can easily distribute internal pressure. In addition, surfaces with edges could develop fractures due to high stress at the edges.
- Cylinders provide the maximum volume for the least surface area and this saves metal costs. Only spheres are better than cylinders in this regard, but they are impractical.

Time-bomb

You come across a bomb that is about to go off if you do not stop it! To neutralize the bomb, you must get EXACTLY four gallons of water in the empty tub to which it is attached. The only equipment you have is one empty 3-gallon jug, one empty 5-gallon jug and an unlimited supply of water. What do you do?

(okay, so the Tuck guys took this one from Die Hard with a Vengeance)

Interviewer Notes:

- There are no markings on the jugs or the tub. The only thing you know is that one jug is 3-gallon and the other jug is 5-gallon.
- You can pour out water if you want to.
- The jugs have to be completely filled. You cannot make eyeball assumptions about a half-filled jug. You have to make sure you get EXACTLY 4 gallons in the tub.
- Once the interviewee has figured it out, ask them to try it again another way. There are two ways to answer the question.

Suggested Solution

Method One. Fill the 3-gallon jug and empty it into the tub. Then, fill the 3-gallon jug and empty it into the 5-gallon jug. Again, fill the 3-gallon jug and empty it into the 5-gallon jug. Only 2 gallons will fit, therefore you have one gallon left in the 3-gallon jug. Pour this one into the tub and you will have exactly 4 gallons.

Method Two. Fill the 5-gallon jug and empty it into the 3-gallon jug. Only 3 gallons will fit and therefore you will have 2 gallons left in the 5-gallon jug. Empty these 2 gallons into the tub. Do this again - and you will have exactly 4 gallons in the tub.

Helpful Hints

Make sure to think out loud.

Beer in UK

Why is there no light beer in the UK?

Suggested Frameworks

This problem does not fit a common framework, but can be dissected by simply listing the alternative reasons for each component of the issue. Here is one approach:

The reason there is no light beer could be because:

1. Consumers do not demand it,
2. Producers are not producing it, despite consumer demand, or
3. Some outside influence, such as the government, will not permit light beer in the country.

Following the consumer option, one can think of reasons why there is no demand for light beer, such as the tradition of taste for dark ales and local pub brews. On the producer side, most beers are manufactured by local pubs, which have integrated forward and formed an oligopoly. They have locked foreign light beer manufacturers out of the market. The entry barriers are too high to be profitable. Government protection could also contribute to this barrier.

Résumé Case

These are appearing more and more often in the interview circuit. The interviewer will ask you to analyze the strategy of your former employer, Goizueta Business School, your department, etc.

The object of this interview is to see if you have the ability to step outside of your job and see the big picture surrounding your old company and industry.

Also, expect questions such as, what would you recommend to the CEO? Your manager? Practice these with a partner. There is a good chance you will get one, and not being well versed is especially problematic. You certainly cannot claim not to understand the business.

Another example might be:

What was the most quantitative project you ever managed? Can you sketch your analytical process on the chalkboard for me?

The moral of this story: Think about your projects and look at your old reports, if necessary. Know your resume cold.

Your MBA in a Nutshell

One of the biggest mistakes you can make, in your pursuit of a consulting career, is ignoring the class material. In fact, it's a cardinal sin. But if you've already done that, here's a quick recap of the important concepts that may be very useful in the interviews:

Remember DIA?

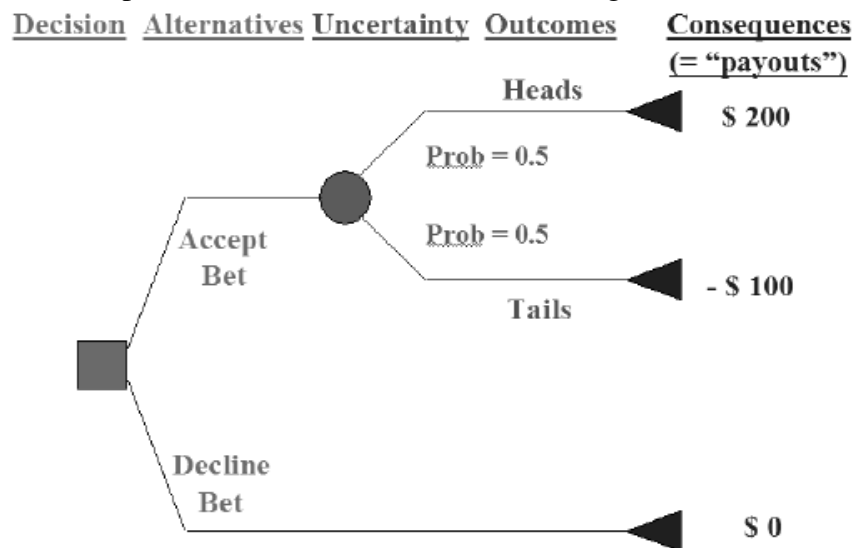
I apologize for refreshing any painful memories of Precision Tree, Bistro-to-Go, or Sea Watch. But here's the bitter truth: If you have set your sight on becoming a consultant, the single most important subject that you may want to review before the interview, in my opinion, is BUS550 DIA. In particular, you would want to understand the basics of decision trees, risk profiles, and probability distributions.

Decision Tree

Decision-trees are an excellent tool to structure, and deal with uncertainty. Decision trees provide a simple and convenient model to compare alternative decision paths, by quantifying the impact of the uncertainties involved.

Decision-trees are typically plotted with a horizontal time-scale moving from left to right. Small squares represent decision-nodes, while small circles denote uncertainty-nodes. Connecting lines symbolize paths, and small triangles are used to depict outcomes.

For instance (taking an example from the DIA class), let the decision situation be this: you are offered a bet, which you can either accept or decline. If you take the bet, a fair coin is flipped. If it shows "Heads," you earn \$200; if "Tails," you lose \$100. The question is whether you should take the bet, or not. The problem can be structured as following:



As is clear from the above diagram, a decision tree structure the problem along time, taking note of probability of happening of each uncertain outcome, the value of each outcome, and the costs involved, apart from the points where decisions need to be taken (decision-nodes), and the points in the process where the outcome is uncertain (uncertainty-nodes).

In order to assist in decision making, decision-trees use a concept called “certainty equivalent” (CE). Certainty equivalent of an uncertainty-node is the “for sure” money that can be considered equivalent in value to holding the uncertainty itself. In other words, CE is the swap value of the node. Consulting interviews involve a special kind of CE, called Expected Monetary Value (EMV).

EMV is the CE in a decision-situation where monetary outcome is the only consideration for the decision. To calculate the EMV, we start at the right-hand side, and move leftwards. For each uncertainty-node, each possible outcome is multiplied by the probability of that outcome.

In the above example, for instance: Starting from right, the top-two branches converge into an uncertainty-node in a MECE format. Thus, for that uncertainty-node (Accept Bet), the EMV is calculated as (probability of Head x outcome in case of Head + probability of Tail x outcome in case of Tail) = $0.5 \times \$200 + 0.5 \times (-\$100) = \$100 - \$50 = \$50$. This EMV is the return we expect to get on average by bidding, if the decision process is repeated many times. In any particular instance, we WILL NOT get an outcome of \$50.

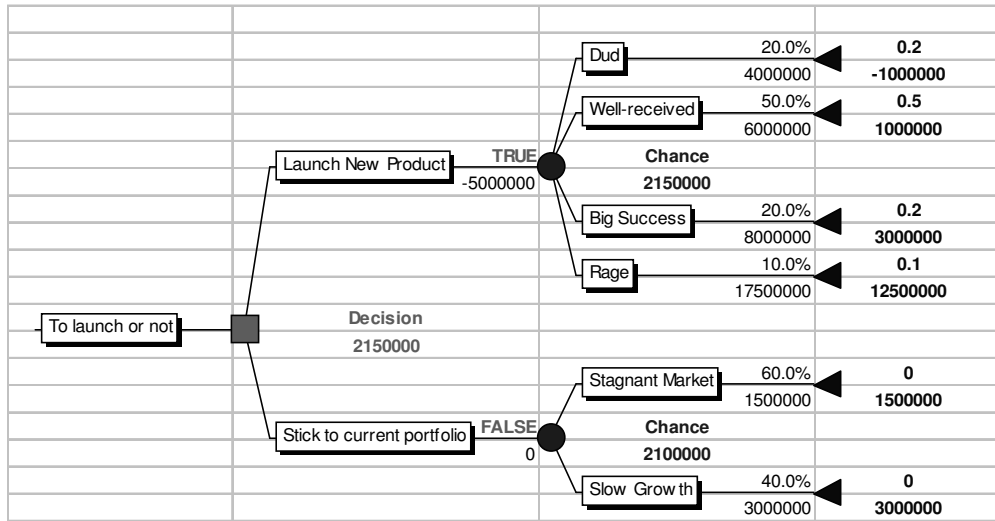
When we visit the third (and last) outcome-node, we find that there is no uncertainty associated with it. Instead, it is a decision-branch (Don't Bid), whose outcome is \$0. Since Bid and Don't Bid are MECE decision-options, we compare their value against each other, and see that since EMV of Bid at \$50 is higher than \$0, the decision should be to bid.

Risk Profile

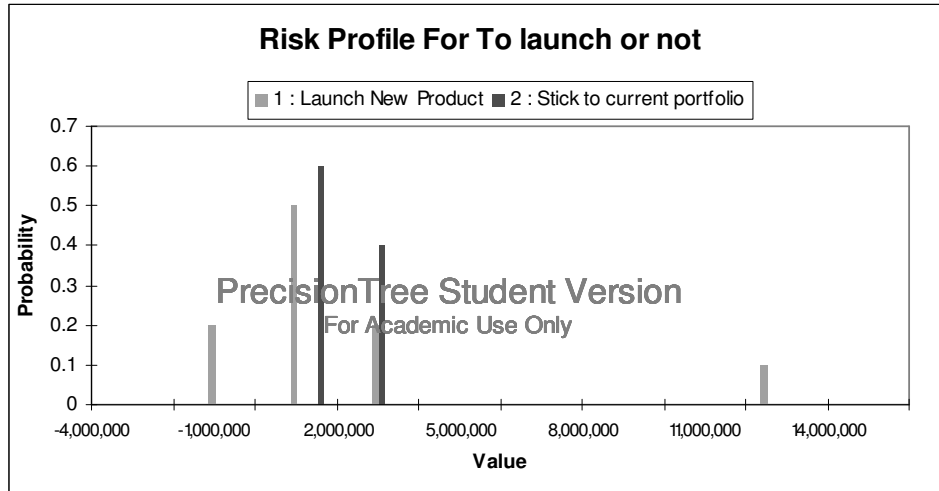
While most case-interviewers will be happy with your application of the decision-tree and the process of decision-making based on EMV, occasionally you may encounter a more sophisticated interviewer. Such interviewer will challenge the EMV solution on the basis that it assumes a “Billionaire's Perspective” i.e. the decision has relatively negligible impact on the decision-maker who is, therefore, risk-neutral. For the protagonist in the case, the decision is a major one, and we do not have the luxury of the billionaire's perspective.

Enter risk-profile. A simple example: Say, a company wants to launch a new product. If it does (at a cost of \$5 million), there is a 20% chance that operating profits (not counting launching costs) will be \$4 million, 50% chances of \$6 million, 25% of \$8 million and 5% of \$17.5 million. On the other hand, if the company sticks to its current portfolio, there is 60% probability of earning \$1.5 million, and 40% probability of \$3 million.

The question, of course, is whether to go ahead and launch the new product, or to stick with the current product portfolio. The decision tree suggests that going by the EMV-maximization rule, the company should launch the new product (see the diagram below).



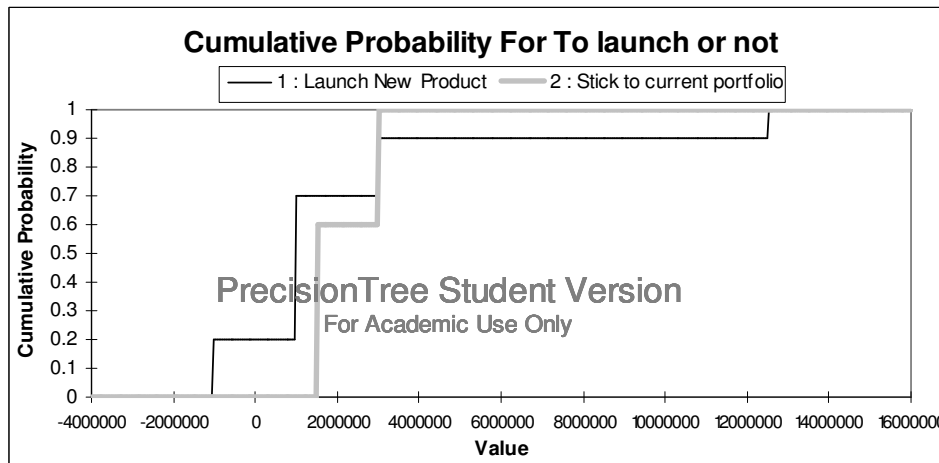
Of course, this is a crucial decision for the company and it certainly won't have a billionaire's perspective as far as this decision is concerned. So, we decide to look at the risk profile:



The risk-profile chart plots outcomes against probabilities. Thus, at \$2.8 million on axis, the height of the bar is at 40%, corresponding the probability of \$2.8 million profit.

We see that the light bars (representing the decision to launch the

new product) are spread out wider than the darker bars (current portfolio). This is the first clue that new product launch is a risky proposition. But the real picture will be available, only when we look at the cumulative chart for risk-profile.



This chart is the real clincher. It shows that the “stick to current portfolio” has what is called “stochastic dominance”[†] over the “launch new product option”. What this means is that for almost all (not all) values of outcomes,

“current portfolio” (light-colored line) has at most the same probability as “new product” of securing an outcome less valuable than that. A more simplistic way of looking at this chart is: There is a 90% probability that “current portfolio” will yield better or equal returns compared to “new product”.

Thus, examining the risk-profile changes our decision completely.

† A cumulative plot towards the right has some dominance. If the entire plot is to the right of others, it has absolute dominance. If the plots intersect, we go by “majority”, and that is known as “stochastic dominance”. (A risk-averse person will consider the majority of points along the Y-axis, while a risk-neutral person will probably look at the areas above each chart – or areas covered above-left by the chart – and go with the one with the larger area)

Probability Distributions

There are several types of probability distribution. They are identified by family (shape), and individuality (location and spread). Location and spread can normally be defined using measures of central tendency (like mean, median, and mode) and standard deviation, respectively.

For the purpose of the interview, it is sufficient to remember (assuming random variables):

- If we can label the outcome of some random process (somewhat arbitrarily) as either a “success” or “failure,” and we care only about the total number of successes or failures in a fixed number of repetitions of that process, **Binomial** distribution is a good model to use.
- If we are interested in the number of occurrences in a particular time interval or spatial area, **Poisson** is a good fit. For example, we might be interested in the number of customers who arrive at a bank in an hour.
- **Exponential** is the converse of Poisson...it explains the inter-arrival time/space.
- For most other situations, a **Normal** distribution is typically a safe assumption.

Sampling and Central Limit Theorem

Though it is the whole population that we want to know about, for reasons like expense, time, inconvenience, physical impossibility etc., populations are seldom surveyed. Instead, it is customary to select a sample, and conduct the research on that, and thereafter draw inferences about the population from the information available about the sample.

The Central Limit Theorem (CLT) is what helps us achieve that. According to the CLT, for a randomly drawn, “large enough”[§] sample:

- \bar{x} , the sample mean of x , is distributed approximately as a normal distribution.
- That normal has a mean equal to population mean. i.e. the mean of \bar{x} is equal to μ . $\mu_{\bar{x}} = \mu_x$
- That normal has a standard deviation equal to the population standard deviation divided by the square root of the sample size. $\sigma_{\bar{x}} = \frac{\sigma_x}{\sqrt{n}}$ is known as the standard error of sampling.

§ Large enough sample:

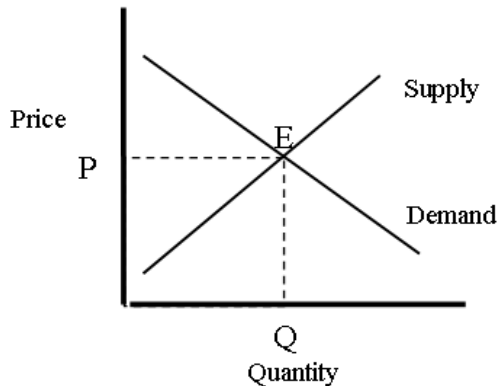
If population is normally distributed = 1

If population is roughly mound-shaped = 15
Any population = 40

It's about the money, honey

It will also be worthwhile to review some fundamental concepts of economics. After all, that's what it is all about – companies make investments, and want returns on them. Consultants lend them brains to help them achieve that. Naturally then, a sound understanding of the fundamentals of economics is a prerequisite.

Supply and Demand



The Supply Curve - The higher the price of a product or service, the greater the quantity of the item that producers will be willing to make available (i.e., supply).

The Demand Curve - The lower the price of a product or service, the greater the quantity of the item that consumers will be willing to buy (i.e., demand).

E is the point of equilibrium as demand and supply curves intersect there. At any point above of E, quantity supplied at the price exceeds demand, while at any point below E, demand exceeds supply. At the equilibrium point E, the price is P and the quantity supplied/ demanded Q.

Fixed Cost and Variable Cost

As the name suggests, fixed cost is the cost that one has to bear irrespective of the level of production. e.g. – office-rent.

Variable cost is dependent on production level. e.g. – cost of raw-material. The important point to note here is that variable costs can be safely assumed to be constant on per unit production basis, for the purpose of the interview.

Marginal Cost and Average Cost

Average cost is the total cost per item produced.

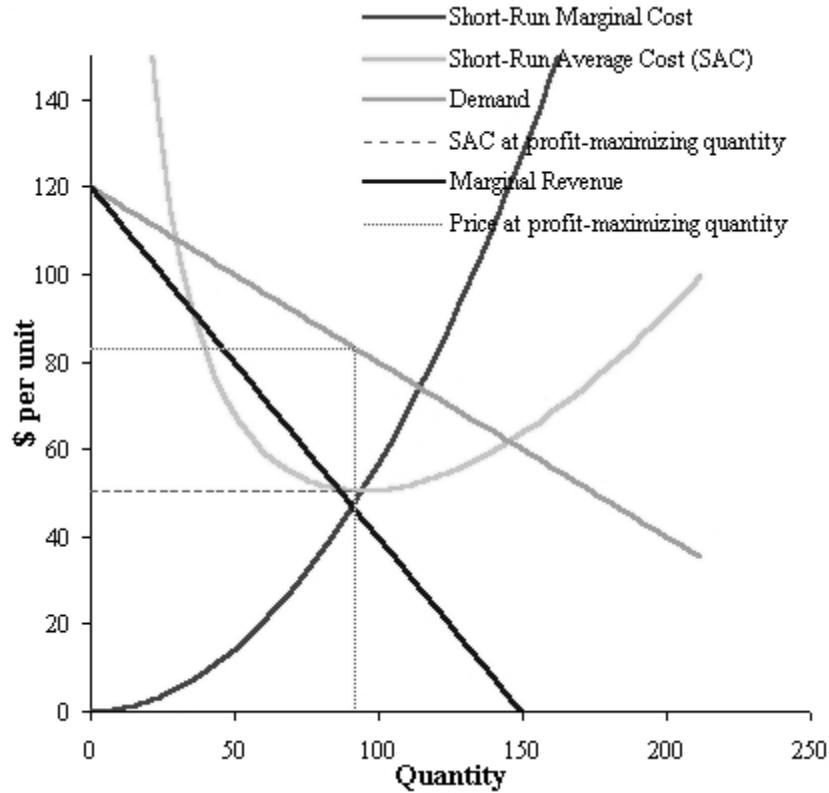
Marginal cost is the cost incurred in producing an additional unit.

In a very myopic and simplistic sense, average cost is a combination of per-item variable cost and per-item allocation of fixed cost, while marginal cost is just the per-item variable cost.

Mathematically:

$$\text{Average cost} = \frac{\text{Total cost}}{\text{Quantity}}$$

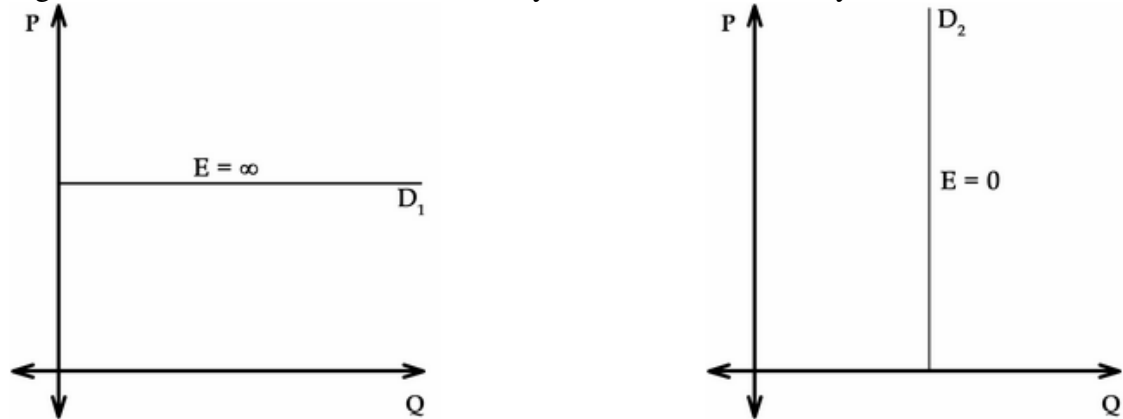
$$\text{Marginal cost} = \text{Total cost (at } Q + 1) - \text{Total cost (at } Q)$$



Elasticity

Elasticity is the ratio of the incremental percentage change in one variable with respect to an incremental percentage change in another variable. Elasticity is usually expressed as a positive number (i.e., an absolute value) when the sign is already clear from context.

Figure 1: Illustrations of Perfect Elasticity and Perfect Inelasticity.



In this example the demand curve (D1) is perfectly elastic.

In this example the demand curve (D2) is perfectly inelastic.

Price elasticity of demand is an elasticity that measures the responsiveness of the quantity demanded of a good to its price. The formula used to calculate the coefficient of price elasticity of demand is

$$E_d = \frac{\% \text{ change in quantity demanded of product X}}{\% \text{ change in price of product X}}$$

Price elasticity of demand is measured as the percentage change in quantity demanded that occurs in response to a percentage change in price. For example, if, in response to a 10% fall in the price of a good, the quantity demanded increases by 20%, the price elasticity of demand would be $20\% / (-10\%) = -2$.

$$\frac{0.2}{-0.1} = -2 \text{ price elasticity}$$

In general, a fall in the price of a good is expected to increase the quantity demanded, so the price elasticity of demand is negative as above. Note that in the economics literature the minus sign is often omitted and the elasticity is given as an absolute value. Because both the denominator and numerator of the fraction are percent changes, price elasticities of demand are dimensionless numbers and can be compared even if the original calculations were performed using different currencies or goods.

Generalized cases of elasticity are frequently used in discussions that characterize circumstances for which detailed information is not available and/or irrelevant to the discussion. There are five such cases of elasticity.

- $E = 0$ Perfectly inelastic. This special case of elasticity is represented in the figure to the right above. Any change in P will have no effect on Q .
- $E < 1$ Inelastic. The proportional change in Q is less than the proportional change in P .
- $E = 1$ Unit elasticity. The proportional change in one variable is equal to the proportional change in another variable.
- $E > 1$ Elastic. The proportional change in Q is greater than the proportional change in P .
- $E = \text{infinity}$ Perfectly elastic. This special case of elasticity is represented in the figure to the left above. Change in P is zero, so elasticity is infinite.

The managerial implication of elasticity is simple. For instance if consumers are highly price-elastic, they are sensitive and responsive to change in prices. If you have increased prices, demand (and maybe revenues) will fall. At the same time, decrease in prices will drive volumes.

Related to price-elasticity of demand is the concept of cross-elasticity of demand. This concept essentially says that demand for your product depends not just on its prices, but also on other products' prices. Increase in prices of substitutes will increase demand (and vice-versa) for your product if cross-elasticity is high. Increase in prices of complements will decrease demand (and vice-versa) for your product if cross-elasticity is high.

Lastly, the relatively unused (in interviews) concept is that of income elasticity of demand. If consumers are income-elastic, they'll buy more of your product if their income increases (and vice-versa).

Opportunity Cost

Opportunity cost is the cost of something in terms of an opportunity foregone (and the benefits that could be received from that opportunity), or the most valuable foregone alternative. BATNA (Best Alternative To Negotiated Agreement), for instance, is the opportunity cost of negotiation.

The consideration of opportunity costs is one of the key differences between the concepts of economic cost and accounting cost. Assessing opportunity costs is fundamental to assessing the true cost of any course of action. In the case where there is no explicit accounting or monetary cost (price) attached to a course of action, ignoring opportunity costs may produce the illusion that its benefits cost nothing at all. The unseen opportunity costs then become the hidden costs of that course of action.

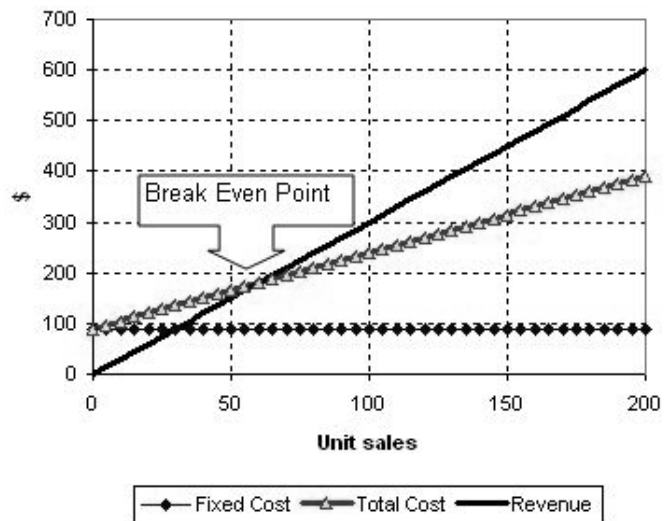
Break-even Point

Break-even point determines the minimum units of sales (called BEQ, or break-even quantity) necessary to break even, or to pay the total costs involved. BEQ is calculated as:

$$BEQ = (FC)/(P-VC)$$

The price minus the variable cost per unit is called the contribution margin. It represents the amount left after the sale of each unit and the paying of the variable costs in that unit that "contributes" to the paying of the fixed costs.

$$\text{Profit} = Q(P-VC) - FC$$



Economies of Scale

Economies and diseconomies of scale refer to an economic property of production: what happens to cost if we increase the quantity of all input factors by some amount. If costs increase proportionately, there are no economies of scale, if costs increase by a greater amount, there are diseconomies of scale, if costs increase by a lesser amount, there are (positive) economies of scale.

Economies of scale tend to occur in industries with high capital costs in which those costs can be distributed across a large number of units of production (both in absolute terms, and, especially, relative to the size of the market).

The exploitation of economies of scale helps explain why companies grow large in some industries. It is also a justification for free trade policies, since some economies of scale may

require a larger market than is possible within a particular country - for example, it would not be efficient for Liechtenstein to have its own car maker. Economies of scale also play a role in natural monopoly.

Typically, because there are fixed costs of production, economies of scale are initially increasing, and as volume of production increases, eventually diminishing, which produces the standard U-shaped cost curve of economic theory. In some economic theory (eg perfect competition) there is an assumption of constant returns to scale.

Economies of scale exist when the average cost (AC) declines as output increases, over a range of output. In AC declines as output increases, so must the marginal cost (MC) (the cost of the last incremental unit of output). The relationship between AC and MC can be summarized as follows:

$MC < AC$ = Economies of scale

$MC = AC$ = Constant returns to scale

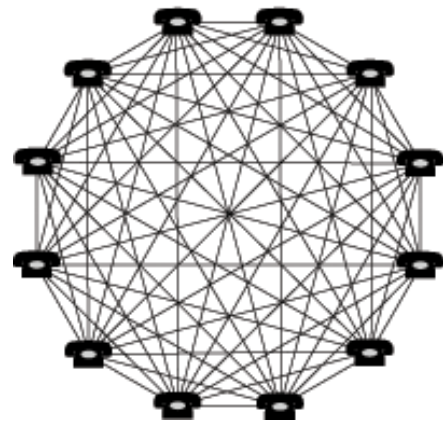
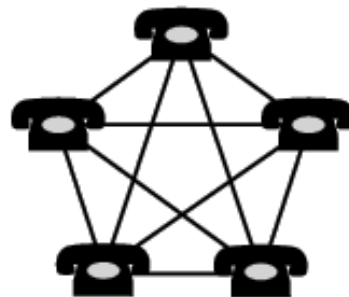
$MC > AC$ = Diseconomies of scale

Network Effects

The network effect causes a good or service to have a value to a potential customer dependent on the number of customers already owning that good or using that service. Metcalfe's law states that the total value of a good or service that possesses a network effect is roughly proportional to the square of the number of customers already owning that good or using that service.

One consequence of a network effect is that the purchase of a good by one individual indirectly benefits others who own the good - for example by purchasing a telephone a person makes other telephones more useful. This type of side-effect in a transaction is known as an externality in economics, and externalities arising from network effects are known as network externalities. This is also an example of a positive feedback loop.

Network effects become significant after a certain subscription percentage has been achieved, called critical mass. At the critical mass point, the value obtained from the good or service is greater than or equal to the price paid for the good or service. As the value of the good is determined by the user base, this implies that after a certain number of people have subscribed to the service or purchased the good, additional people will subscribe to the service or purchase the good due



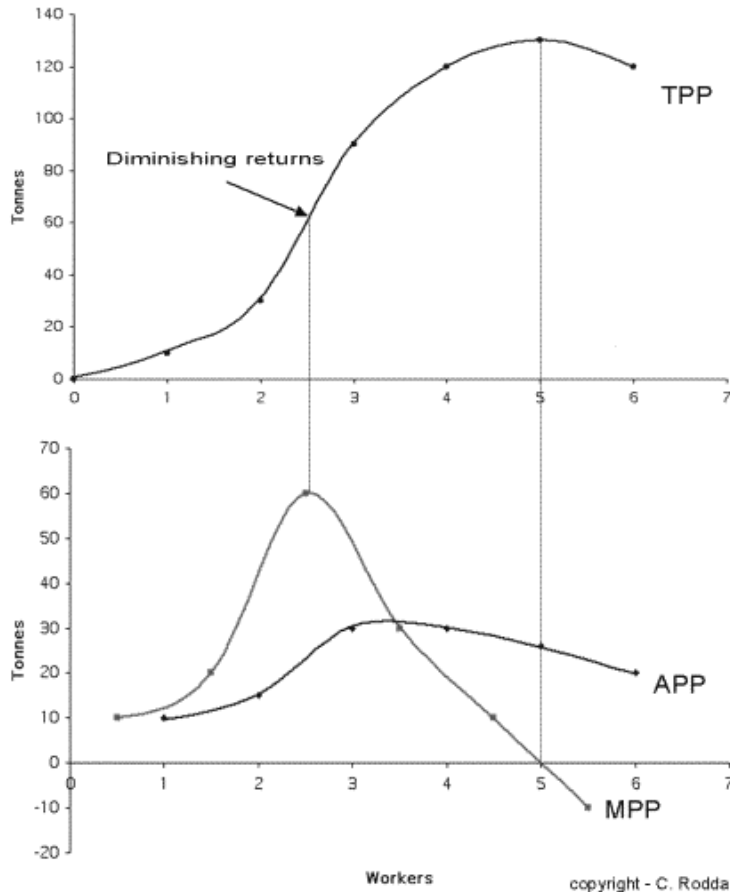
to the positive utility:price ratio. Until this point has been achieved, however, only early adopters will subscribe.

Network externalities resemble economies of scale, but they are not considered such because they are a function of the number of users of a good or service in an industry, not of the production efficiency within a business.

Law of Variable Proportions

Popularized by Anne Robert Jacques Turgot and then by Thomas Malthus, the law of variable proportions states that when one of the factors of production is held fixed in supply, successive additions of the other factors will lead to an increase in returns up to a point, but beyond this point returns will diminish.

The last part, called the law of diminishing return is the most popular portion of this law. Simply stated, it means that each successive unit increase in an input resource will lead to less than proportionate increase in the produced output.



Prisoner's Dilemma

Originally formulated by Albert W. Tucker, the prisoner's dilemma is a type of non-zero-sum game that has become a classic model of such games.

In this game, as in many others, it is assumed that each individual player ("prisoner") is trying to maximize his own advantage, without concern for the well-being of the other players.

The Nash equilibrium for this type of game does not lead to Pareto optimums (jointly optimum solutions). In equilibrium, each prisoner chooses to defect even though the joint payoff would be higher by cooperating. Unfortunately for the prisoners, each has an individual incentive to cheat even after promising to cooperate. This is the heart of the dilemma.

The classical prisoner's dilemma (PD) is as follows:

Two suspects A, B are arrested by the police. The police have insufficient evidence for a conviction, and having separated both prisoners, visit each of them and offer the same deal: if one turns Kings Evidence against the other and the other remains silent, the silent accomplice receives the full 10-year sentence and the betrayer goes free. If both stay silent, the police can only give both prisoners 6 months for a minor charge. If both betray each other, they receive a 2-year sentence each.

It can be summarized thus:

	Prisoner A Stays Silent	Prisoner A Betrays
Prisoner B Stays Silent	Both serve six months	Prisoner B serves ten years; Prisoner A goes free
Prisoner B Betrays	Prisoner A serves ten years; Prisoner B goes free	Both serve two years

Assume both prisoners are completely selfish and their only goal is to minimize their own jail terms. Each prisoner has two options: to cooperate with his accomplice and stay quiet, or to betray his accomplice and give evidence. The outcome of each choice depends on the choice of the accomplice. However, neither prisoner knows the choice of his accomplice. Even if they were able to talk to each other, neither could be sure that they could trust the other.

Now, let's assume our protagonist prisoner is rationally working out his best move. If his partner stays quiet, his best move is to betray as he then walks free instead of receiving the minor sentence. If his partner betrays, his best move is still to betray, as by doing it he receives a relatively lesser sentence than staying silent. At the same time, the other prisoner thinking rationally would also have arrived at the same conclusion and therefore will betray. Thus, in a game of PD played only once by two rational players both will betray each other.

However, if only they could arrive at a conspiracy, if only they could be sure that the other player would not betray, they would both have stayed silent and achieved a better result. However, such a conspiracy cannot exist, as it is vulnerable to the treachery of selfish individuals, which we assumed our prisoners to be. Therein lies the true beauty and the maddening paradox of the game.

If only they could both cooperate, they would both be better off; however, from a game theorist's point of view, their best play is not to cooperate but to betray.

In the iterated prisoner's dilemma the game is played repeatedly. Thus each player has an opportunity to "punish" the other player for previous non-cooperative play. Cooperation may then arise as an equilibrium outcome. The incentive to cheat may then be overcome by the threat of punishment, leading to the possibility of a superior, cooperative outcome.

You can play it at <http://www.princeton.edu/~mdaniels/PD/PD.html>

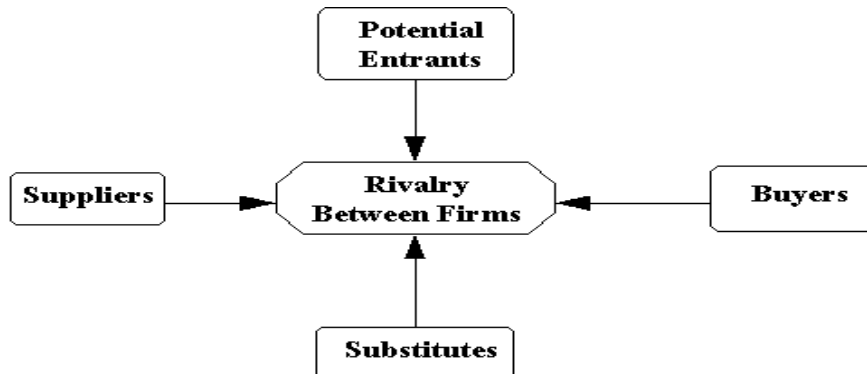
Pareto Principle

The Pareto principle refers to the situation in which a large amount of the total output comes from a small amount of the total input. This is typified by the "80/20 rule" which states that 80% of the output comes from 20% of the input. Typically, a Pareto analysis is conducted to determine the areas on which management should focus its efforts. For example, 80% of total downtime on a production line is attributed to 2 out of 10 manufacturing steps. Alternatively, 80% of a company's profits may be generated by 20% of its products.

Don't forget strategy

Remember strategic frameworks, theories and terminology, as these can be very helpful during your interview. You don't want to be groping in the dark when the interviewer tells you that the core-competence of the client is its mastery over worldwide distribution.

Porter's Five Forces



Competition

Degree of Rivalry as determined by:

- Concentration & Balance
- Industry Growth
- Fixed (or Storage) Costs
- Product Differences
- Brand Identity

- Switching Costs
- Intermittent Overcapacity
- Diverse Competitors
- Corporate Stakes
- Exit Barriers

Suppliers

Supplier Power as determined by:

- Concentration
- Substitutes
- Supplier Volume
- Product Differences
- Brand Identity
- Switching Costs
- Threat of Forward (or Reverse) Integration
- Pull Through by Customers

Buyers

Customer Power as determined by:

- Intrinsic Power
- Customer Concentration
- Volume
- Switching Costs
- Threat of Backward (or Forward) Integration

Availability of Substitutes

Pull Through by End Users

- Price Sensitivity
- Cost Relative to Total Purchase
- Product Differences
- Brand Identity
- Impact on Quality/Performance
- Customer Profitability
- Decision-Maker's Stakes

Substitutes

Substitution is Determined by Product Function, NOT Product Form

The Threat of Substitutes is a Functions of:

- Relative Price/Performance
- Switching Costs

New Entrants

Barriers to Entry Determine Threat of New Entrants and Include:

- Economies of Scale
- Product Differences

- Brand Identity
- Switching Costs
- Capital Requirements
- Absolute Cost Advantages
- Access to Distribution
- Government Policy
- Expected Retaliation
- Entry Detering Price

Core Competence

A company's core competency is the one thing that it can do better than its competitors. If a core competency yields a long term advantage to the company, it is said to be a sustainable competitive advantage.

According to C.K.Prahalad and Gary Hamel, the fathers of core-competence, a core competence has three characteristics:

- it provides potential access to a wide variety of markets,
- it increases perceived customer benefits and
- it is hard for competitors to imitate.

They wrote that a core competency is "an area of specialized expertise that is the result of harmonizing complex streams of technology and work activity."

As an example they gave Honda's expertise in engines. Honda was able to exploit this core competency to develop a variety of quality products from lawn mowers and snow blowers to trucks and automobiles. To take an example from the automotive industry, it has been claimed that Volvo's core competence is safety.

Business Process Reengineering

Business Process Re-engineering was first introduced to the business world by Frederick Taylor when he published his article The Principles of Scientific Management back in the 1900's. It was later replaced by Total Quality Management after the World War II by William Deming and Dr. Joseph Juran after they helped Japan become a super economic power taking over market share from North American businesses with quality goods and services. Later in the earlier part of the 1990's, Michael Hammer and James Champy introduced their book, Reengineering the Corporation, which gave birth to the term Business Process Reengineering.

Business Process Re-engineering is also known as, BPR, Business Process Redesign, Business Transformation, Re-engineering and Process Change Management and essentially involves breaking down business processes and reinventing them to work more efficiently, cutting out wasted steps and enhancing communication. Business processes are often replete with implicit rules which hamper the way in which work should truly be done. Further, processes are often

viewed as discrete tasks, a habit that prevents management from making frame breaking, cohesive change.

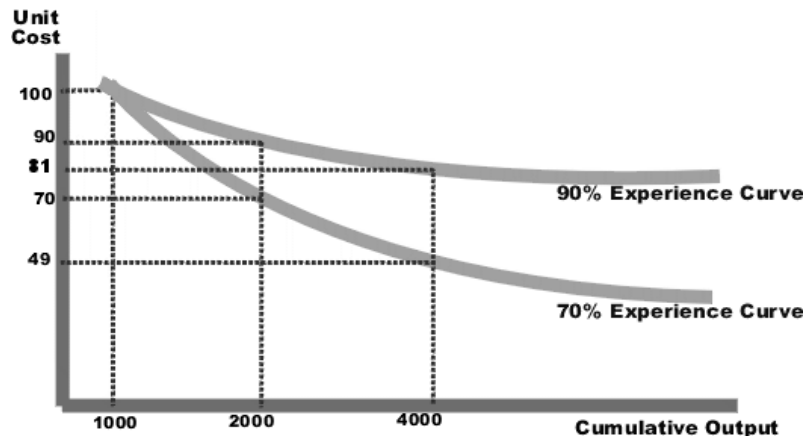
Re-engineering is defined by Hammer and Champy as "the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance such as cost, quality, service, and speed."

Learning Curve

The learning curve effect and the closely related experience curve effect express the relationship between experience and efficiency. As individuals and/or organizations get more experienced at a task, they usually become more efficient at them.

The learning curve effect states that the more often a task is performed, the less time will be required on each iteration. This relationship was first quantified in 1925 at Wright-Patterson Air Force Base in the United States, where it was determined that every time aircraft production doubled, the required labor time decreased by 10 to 15 percent. Subsequent empirical studies from other industries have yielded different values ranging from only a couple of percent up to 30 percent, but in most cases it is a constant percentage: It did not vary at different scales of operation.

The experience curve effect is broader in scope than the learning curve effect encompassing far more than just labor time. It states that the more often a task is performed, the lower will be the cost of doing it. Each time cumulative volume doubles, value added costs (including administration, marketing, distribution, and manufacturing) fall by a constant and predictable percentage. This broader effect was first noticed in the late 1960s by Bruce Henderson at the Boston Consulting Group (BCG). Research by BCG in the 1970s observed experience curve effects for various industries that ranged from 10 to 25 percent.



Key Success Factors

The term is quite self-explanatory, but here's a loose definition nonetheless: KSF's are the factors that are a necessary condition for success in a given market.

Vertical Integration

In some industries, companies find it advantageous to integrate backward (towards their suppliers) or forward (towards their customers). Vertical integration makes the most sense from a management and economic perspective when a company wants greater control of a channel that has major impact to its product cost or quality or when the existing relationship involves a high level of asset specificity (assets that are specific to the relationship the company has with its supplier or customer).

Porter's 3 Generic Strategies

Michael Porter suggests that business strategies can be classified as pursuing cost leadership, differentiation, or focus.

Cost Leadership: Here the business works hard to achieve the lowest production and distribution costs. Firms pursuing this strategy must be good at engineering, purchasing, manufacturing, and physical distribution. Cost leadership, does not, of and by itself mean lowest-priced product.

Differentiation: Here the business concentrates in achieving superior performance in an important customer benefit are valued by a large part of the market. It can strive to be the service leader, the quality leader, the style leader, or the technology leader, etc.

Focus: Here the business focuses on one or more narrow "niche" market segments rather than going after a large market. The firm knows the needs of these segments better than anyone else, and fulfils them better than anyone else.

CSC Index's Value Disciplines

Fred Wiersema and Michael Tracy have developed a set of strategic foci called the value disciplines:

- **Operational excellence** - Provide customers with reliable products or services at competitive prices and delivered with minimal difficulty or inconvenience, with the goal of leading the industry in price and convenience.
- **Customer intimacy** - Segment and target markets precisely and then tailor offerings to match exactly the demands of those niches.
- **Product leadership** - Offer customers leading edge products and services that consistently enhance the customer's use or application of the product, thereby making rivals' goods obsolete.

Companies which push the boundaries of one value discipline while meeting industry standards in the other two, gain such a lead that competitors find it hard to catch up.

Marketing on my mind

Marketing is another discipline, the basics of which will take you far in the case.

The 5 C's

Five C's and four P's are elementary frameworks that just might do the job. You won't soar with these, but you won't drown either. These frameworks can help you touch upon all the major issues while appearing fairly well-organized. Just remember to: 1. Kick up some dust to conceal the fact that you are using these frameworks; 2. To rearrange the order of the elements to suit the case.

Company

What do you know about the company? How big is it? Is it public or private? What kinds of products and services does it offer?

Costs

What are the major costs? Have the costs changed over the past year or so? How do the costs compare to others in the industry? How can we reduce costs?

Competition

Who are the biggest competitors? What market-share does each player hold? Has market-share changed over the past year or so? How do our products or services differ from those of competitors? Do we have any strategic advantage over competitors?

Consumer

Who are our consumers? What do they want? Are we fulfilling their needs/ wants? How can we get more of them? Are we retaining the ones we have?

Channel

How do we get our product in the hands of end-users? How can we increase our distribution channels? Are there any areas of our market we are not reaching? How do we reach them?

The 4 P's

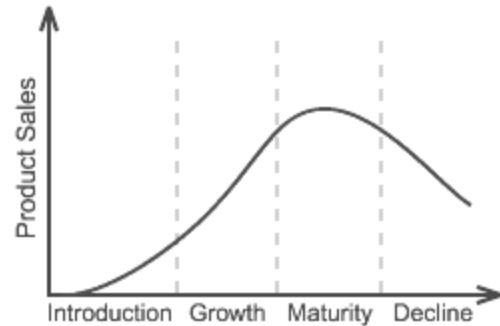
The major marketing management decisions can be classified in one of four categories known as the 4 P's of marketing: Product, Price, Place (distribution), Promotion

The 4P decisions can be summarized as:

Product	Price	Place	Promotion
Function/ Purpose	List price	Channel members	Advertising
Appearance	Discounts	Channel motivation	Personal selling
Performance Quality	Allowances	Market coverage	Public relations
Conformance Quality	Financing	Locations	Message
Features	Leasing options	Logistics	Media
Usability		Service levels	Budget
Packaging			Sales promotions
Brand			
Warranty			
Service/Support			

Product Life Cycle

A new product progresses through a sequence of stages from introduction to growth, maturity, and decline. This sequence is known as the product life cycle and is associated with changes in the marketing situation, thus impacting the marketing strategy and the marketing mix.



Introduction Stage

In the introduction stage, the firm seeks to build product awareness and develop a market for the product. The impact on the marketing mix is as follows:

- Product branding and quality level is established and intellectual property protection obtained.
- Pricing may be low penetration pricing to build market share rapidly, or high skim pricing to recover development costs.
- Distribution is selective until consumers show acceptance of the product.
- Promotion is aimed at innovators and early adopters. Marketing communications seeks to build product awareness and to educate potential consumers about the product.

Growth Stage

In the growth stage, the firm seeks to build brand preference and increase market share.

- Product quality is maintained and additional features and support services may be added.
- Pricing is maintained as the firm enjoys increasing demand with little competition.
- Distribution channels are added as demand increases and customers accept the product.
- Promotion is aimed at a broader audience.

Maturity Stage

At maturity, the strong growth in sales diminishes. Competition may appear with similar products. The primary objective at this point is to defend market share while maximizing profit.

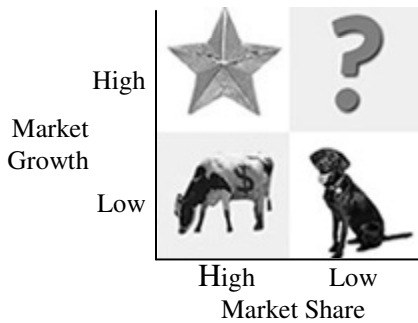
- Product features may be enhanced to differentiate the product from that of competitors.
- Pricing may be lower because of the new competition.
- Distribution becomes more intensive and incentives may be offered to encourage preference over competing products.
- Promotion emphasizes product differentiation.

Decline Stage

As sales decline, the firm has several options:

- Maintain the product, possibly rejuvenating it by adding new features and finding new uses.
- Harvest the product - reduce costs and continue to offer it, possibly to a loyal niche segment.
- Discontinue the product, liquidating remaining inventory or selling it to another firm that is willing to continue the product.
- The marketing mix decisions in the decline phase will depend on the selected strategy. For example, the product may be changed if it is being rejuvenated, or left unchanged if it is being harvested or liquidated. The price may be maintained if the product is harvested, or reduced drastically if liquidated.

BCG's Growth-Share Matrix



BCG's Growth-Share matrix provides a framework for analyzing a firm's product portfolio.

Products that have a high market-share in a high-growth market are, obviously, star products that any firm would like to have. High growth typically means low market-size, and these star products are, thus, not huge current-revenue earners. Stars are where the firm should invest its resources.

Cash-cows or milch-cows are products that have a large market-share in a low-growth market. These are the main source of revenue for companies and provide the company with resources to invest in the stars.

Dogs are resource-guzzlers as they are products with low share in low-growth markets. The firm should seriously consider abandoning or discontinuing these products.

Question marks – products with low-share in a high-growth market – are products that are not a significant source of revenues for the firm, but might have some potential.

In a typical product life-cycle, products move from being question-marks to stars to cash-cows to dogs.

STP

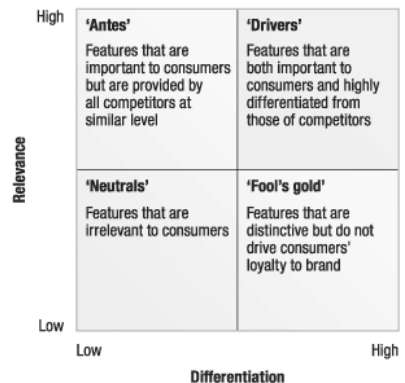
S-T-P refers to the fundamental strategy of Segmentation-Targeting-Positioning.

The deadliest sin of marketing is trying to mean all things to all people. Marketers must understand the composition of the market, and exactly who their target customer is. Thereafter, they must position their product, lest (as Sergio Zyman says) the competition does it for them by default. A product's position is how potential buyers see the product. Positioning is expressed relative to the position of competitors. The term was coined in 1969 by Jack Trout in his paper, ""Positioning" is a game people play in today's me-too market place".

McKinsey's Brand-building Matrix

Being the same as everyone else is useless. But being different is not the same as being better.

We can promote a brand's tangible attributes, such as low prices or assorted flavors, or its intangible attributes, such as image. The interplay is complex, but statistical techniques can help us home in on the appeal of each attribute, as well as reveal misconceptions about those that actually lead consumers to buy products.



The chart presents a framework for categorizing brand attributes. Those that marketers value as distinctive—but that buyers consider irrelevant—are the fool's gold of branding. Attributes that every brand has but are nonetheless essential to make consumers consider buying a product serve as the ante for getting into the branding game. Those worth investing in and promoting can differentiate a product from competitors and drive purchasing decisions.

Pricing

Pricing is an important strategic issue because it is related to product positioning and affects other marketing mix elements. According to McKinsey, companies habitually charge less than they could for new products, especially with revolutionary offers. Underestimating a product's value can be a costly mistake, since the introductory price often fixes its worth in the buyer's mind. An appropriate pricing strategy, therefore, is a key success factor for any business.

There is a constant tug-of-war among marketing people regarding the superiority and even validity of cost-based pricing and price-based costing. Even many management gurus have expressed different opinions on this.

Before there were these management gurus (including Michael Porter, C.K.Prahalad, Tom Peters, Michael Hammer et al), there was Peter F. Drucker. In his “The Five Deadly Business Sins”, he describes cost-driven pricing as one of the deadly sins of business, and vociferously advocates price-driven costing. Why? Consumers do not see it as their job to ensure manufacturers a profit. The only way to start is from the point of what the market is willing to pay. Thus, it is imperative to estimate the demand-curve and develop pricing strategy based on the pricing objectives.

Common pricing objectives include the following:

- Current profit maximization
- Current revenue maximization
- Maximize sales quantity
- Maximize profit margin
- Quality leadership
- Partial cost recovery
- Survival
- Status quo

The following could be used as a generic model for pricing:

- Premium Pricing - This approach is used where a substantial competitive advantage exists.
- Penetration Pricing - The price charged for products and services is set artificially low in order to gain market share. Once this is achieved, the price is increased.
- Economy Pricing - This is a no frills low price. The cost of marketing and manufacture are kept at a minimum.
- Price Skimming - Charge a high price because you have a substantial competitive advantage. Upon exhausting the market-potential of the high-paying segment, lower



the price to make your affordable to the next segment.

Additionally, several methods may be used to contribute to the pricing objective:

- Optional Product Pricing - Companies will attempt to increase the amount customer spend once they start to buy by offering optional 'extras'.
- Captive Product Pricing - Where products have complements, companies will charge a low price for the "bait", and a higher price after the consumer is captured. For example a razor manufacturer will charge a low price and make most profits from the sale of the only design of blades which fit the razor.
- Product Bundle Pricing - Here sellers combine several products in the same package. This also serves to move old stock.
- Geographical Pricing - Geographical pricing is evident where there are variations in price in different parts of the world.
- Psychological Pricing - This approach is used when the marketer wants the consumer to respond on an emotional, rather than rational basis. e.g. - Price-point perspective: 99¢ not \$1.

Marketing Increases Revenues

		<i>marketing objective</i>	
		acquisition	retention
<i>source of volume</i>	stimulate demand	attract new category users	increase consumption among current users
	steal share	attract new brand users	increase consumption occasions among multi-brand users

Accounting for Finance

Apart from the general notion of profit and loss, there is one concept from accounting and/ or finance that many case-questions will incorporate in some way or form: Net Present Value.

Net Present Value

The NPV is a project's net contribution to wealth: present value (PV) minus initial investment. The present value is calculated by discounting future cash flows by an appropriate rate (r), usually called the opportunity cost of capital, or hurdle rate. If C_t represents the cash flow at time t , (C_t can be negative, as in the initial investment, C_0), the NPV is calculated as follows:

$$NPV = C_0 + C_1/(1+r) + C_2/(1+r)^2 + \dots + C_t/(1+r)^t$$

Weighted Average Cost of Capital (WACC)

Another concept you should be familiar with is WACC. Nothing to it really. Just a way of calculating the cost of capital by averaging interest rates. For instance, if one is borrowing $p\%$ of the capital at $a\%$ interest rate and $(100-p)\%$ of the capital at $b\%$, then

$$WACC = y\% \times a\% + (100-p)\% \times b\%$$

Since one is not limited to two rates, and may borrow from any number of sources,

$$WACC = y_1\% \times a_1\% + y_2\% \times a_2\% + \dots + y_n\% \times a_n\%$$

where n = number of different interest rates at which the capital is borrowed.

Operating on the Business

Strategic Outsourcing

In general, competencies that are, or will be, strategically important should *not* be outsourced. If the company does not currently own this competency, or is at a competitive disadvantage in performing it, it should reengineer the process to improve it or seek a strategic partner. All other capabilities should be outsourced, unless the company has a competitive advantage in one of these capabilities, in which case it should determine how it can leverage this advantage in a substantive manner.

A Framework for Strategic Outsourcing

Strategic Importance	High	II Improve or seek partner	I Keep and leverage
	Low	IV Outsource / Find alternative supplier	III Seek differential advantage
		Low	High
		Company Competitiveness	

Think like a consultant

Here are 3 quick questions to get you started:

(from <http://www.mckinsey.com/locations/london/applicationprocess/interview/test/>)

1. The team has been asked to look at a number of issues that the client is considering, including whether or not to start a customer loyalty programme. In helping the client decide on this issue, which two of the following arguments, if true, would you favour introducing such a loyalty programme?
 - A. The client has increased sales by 15% in the last year.
 - B. It will lead to an increase in revenues with no significant cost increase.
 - C. Loyalty programmes have successfully been introduced at retail electronics chains.
 - D. It will allow customer behaviour data to be collected.
 - E. It will benefit the partner companies of the loyalty programme.

2. A potential growth strategy for the client is to acquire a competing supermarket chain. You have been asked to create a list of most likely targets for the client. Which of the following is not a factor when compiling this list?
 - A. Geographic location of the target's stores.
 - B. Target's market share.
 - C. Target's financial performance.
 - D. Target's store layout.
 - E. Target's distribution system.

3. The client's current revenues are \$1 billion. Its profitability is 12% of revenue. An acquisition target has been identified, a smaller supermarket chain with revenues of \$500 million and current profitability of 7%. If the smaller company were to be acquired by the client, there would be immediate cost savings from eliminating duplicating activities of \$20 million. What would be the combined profits of the two firms if the merger took place?

Correct answers:

1. B and D
B. It will lead to an increase in revenues with no significant cost increase.
D. It will allow customer behaviour data to be collected.

2. D
D. Target's store layout.

3. \$175 million

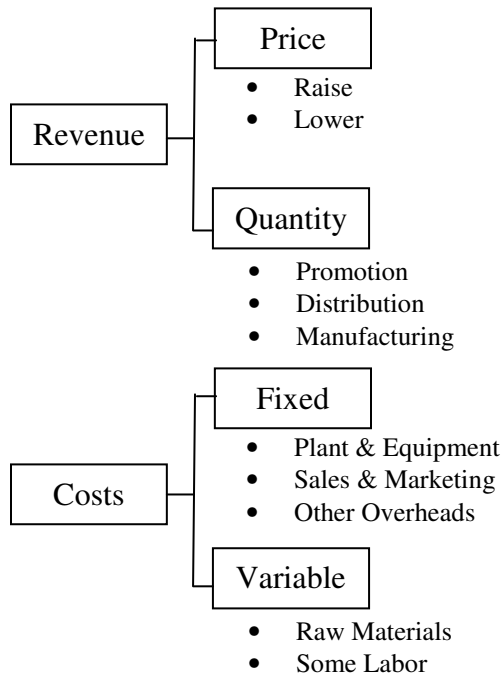
Case-questions and Frameworks

While the academic frameworks are very useful in understanding of the problems, it may sometimes be difficult to figure out which one to apply to the question you are given in the interview. Therefore, in this section, there are some of the most-often repeated question-categories, and suggested frameworks to attack them. Please note that these frameworks are by no means exhaustive (in terms of types of questions) or superior (to any other possible approaches), and have been provided herein merely for guidance. Do not be shy of creating your own frameworks – creativity is rewarded in case-interviews!

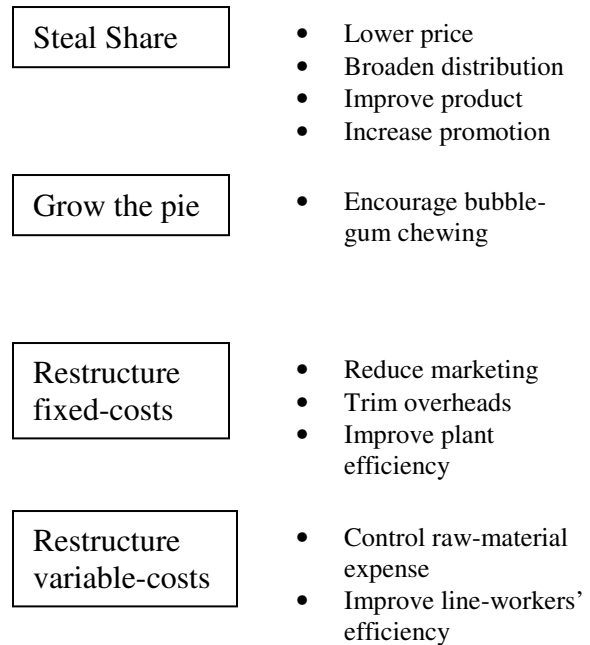
Please also note that the consultants will like you more if you are hypothesis-driven. So, while you may use these frameworks to structure the problem in your mind, and on paper (most interviewers are experts at reading upside-down!), while presenting your approach to the interviewer, you should be hypothesis-driven.

Following example, about increasing profits (at a bubble-gum company), contrasts framework-based structuring and hypothesis-driven presentation:

Framework



Hypothesis-driven approach



If Scenarios to remember

Sales scenarios

- If sales are flat and profits are taking a hit, examine both revenues and costs. Always start with the revenues side. Until you identify and understand the revenue streams, you can not make educated decisions on the cost side.
- If sales are flat but market share is constant, that could indicate flat industry-sales.
- If your question includes a decline in sales problem, analyze three things:
 - Overall declining market demand.
 - Current marketplace may be mature or the product may be obsolete.
 - Loss of market share to substitutes.
- If sales and market share are rising, but profits are declining, investigate whether prices & costs are changing. If costs aren't the issue, investigate product mix, and check to see if margins have changes.

Profit scenarios

- If the profits are declining because of a drop in revenues, concentrate on marketing and distribution issues.
- If profits are declining because of rising expenses, concentrate on operational and financial issues, i.e. COGS, labor, rent, marketing costs, legal costs.
- If profits are declining, yet revenues went up, review:
 - Changes in cost
 - Any additional expenses
 - Changes in prices
 - The product mix
 - Changes in consumers' needs

Product scenarios

- If a product is in its emerging growth stage, concentrate on R&D, competition, and pricing.
- If a product is in its growth stage, emphasize marketing and competition.
- If a product is in mature stage, focus on manufacturing, costs, and competition.
- If a product is in its declining stage, define niche market, analyze competition's play, or think exit strategy.

Pricing scenarios

If you lower prices, and volume increases and you are pushed beyond full-capacity, then your costs will shoot up as your employees work overtime, and consequently your profits will suffer.

According to Bruce Henderson of BCG, prices are stable only when three conditions are met:

- 1) Growth rate for all competitors is almost the same.
- 2) Prices are paralleling costs.
- 3) Prices of all competitors are roughly of equal value.

The volume produced and costs are easier to change than the industry price levels, unless everyone changes their prices together.

The perfect strategy for the high-cost producer is one that convinces competitors that market shares cannot be shifted, except over long periods of time, and therefore, that the higher practical industry prices are to everyone's advantage - meaning that price-wars are detrimental and everyone will profit more by keeping prices high.

For sample cases for the frameworks, I have used cases that I encountered at my internship interviews (except the international expansion case), in order to demonstrate how varied the cases, that any one person is given, may be.

Declining Profits

Declining Profits

- Revenues
 - Price
 - Volume
 - Increase
 - Decrease
- Product Mix
- Costs
 - Fixed
 - Variable
 - Unusual (e.g. - Lawsuits)

Sample Case: Retail Profits (Bain)

Interviewer

Your client is a US-based fortune 500 company. It is one of the retail chains in the world. It was profitable and growing through the 1990's. In 1999, it's revenues were \$14.1 billion. Since then revenues have been declining and the net income has been inconsistent. Your job is to:

- Help understand the key drivers.
- Help resolve the situation.

Candidate

I'd like to look at the problem from 3 prisms: the competitive landscape, the firm and the economics. Under competition, I'd be interested in finding out how the industry is doing, who and how many competitors are there? Has there been a change in the competition's numbers or strategy?

About the firm, I'd like to explore whether there have been changes in strategy in the later 90's? Have there been changes in pricing, or in distribution such as the number of stores or outlets?

Lastly, I'd like to understand the economics...what are the costs, how are they structures in terms of fixed and variable costs?

I'd like to start with the firm. Has the strategy changed in these past few years?

Interviewer

That's a good question to start off with. Initially the client organization had positioned itself on prices as the low cost player. However, in the late 90's the Wal-Mart severely undercut them on prices. So they shifted to a premium product strategy. However, it has not worked out as there is a lot of competition.

Candidate

Are the stores located in areas with a high density of premium product competitors? Location is very important in the retail business, and I want to understand how the stores of our client are located.

Interviewer

The client's stores are located in 12 states and Bahamas, in semi-urban and rural areas.

Candidate

Is there a difference in profitability of stores located in these two types of locations?

Interviewer

There is. The semi-urban stores are less profitable than rural stores.

Candidate

Could there be a problem with the product-mix on offer? Is there a mismatch between the product being demanded and that being promoted? Are the customers at the two kinds of locations demanding different things? Are we offering the same things in both kinds of locations?

Interviewer

Indeed. The product line-up is exactly the same in both places. While the rural stores are selling more of electronic items, in semi-urban areas, clothes are the primary draw.

Candidate

In that case, it might be a good idea to align our offer with customer demands. In rural areas, we should develop the image of a premium electronics store while in semi-urban areas we should carry more clothes and less electronics, and cultivate the image of a place with cheaper but stylish clothing. I am assuming that electronics items have higher prices and margins than clothes that the client sells. At both kinds of locations, it is important to build a brand that stands for some unique sort of benefit relevant for the consumer.

Interviewer

Quite right. Why do you think there is a difference in buying behavior of the rural and semi-urban population?

Candidate

My guess is that in rural areas, electronics items are not really available at many other places. In semi-urban areas, people can drive to large electronics stores to make any major electronics purchases. However, they don't want a long drive when all they want is some clothes. A more conveniently located store where recommenders and advisors can go along, is more likely to attract these people. Which would probably mean that in semi-urban centers, the stores should make the people accompanying the buyer feel equally welcome and comfortable.

Increase Profitability

Increase Profitability

- Revenues
 - Price
 - Elasticity
 - Substitutes
 - Volume
 - Promotion
 - Place
 - New marketing campaign
 - Economies of scope
- Cost of goods sold
 - Material
 - Scale
 - Supply
 - Inventory management
 - Labor
- Consolidation of operations

Sample Case: Paper Towel Profits (BCG)

Interviewer

Your client is a large consumer goods manufacturer and is concerned about the paper towel business. Profits for the business are okay, but the client wants to increase them. The client has already done some research and following are the three findings:

- 75% of the business is done when towels are put on promotions.
- There is great variability in event performance.
- Retailer profitability is variable

Your objective is to help the client

- Increase profits
- Decrease variability

How will you go about analyzing the problem?

Candidate

I need a quick clarification before I start structuring my thoughts. You mentioned that 75% sales happen during promotions. Are these promotions to the trade or to the consumers?

Interviewer

These are trade promotions. We expect the retailers to pass-on at least a part of the benefit to the consumers. However, consumers don't necessarily get the benefit.

Candidate

Okay.

Industry	Firm	Revenues	Costs	Product Sales (Var)
Profitability	Promotions	Number of towels	Fixed	PLC/ Buying
Variability	Share-of-voice	Number of	Variable	Cycle
Competitors	Scanner-based	consumers	- Manufacturing	Frequency of
		Frontloading?	- Distribution	promotions
		Increase through		Anticipation of
		price reductions?		promotions
		New products?		Distribution

I'd want to explore four broad areas: industry, firm, revenues and costs. Starting with the industry, how is the profitability in the industry in general? And variability?

Interviewer

Good questions. But those are not the issues here.

Candidate

How many competitors are there?

Interviewer

There are three big competitors. All players own close to 25% market share each.

Candidate

Seems like industry factors are not important here....moving on to the firm...I'd be particularly interested in finding out about the promotions. What is the share of voice? How are these promotions run – are they scanner based, or just based on order quantities?

Interviewer

The promotions are run quite simply. During the promotions, the retailers get volume discounts on their orders over and above their regular trade margins.

Candidate

Hmm....interesting. I'm jumping ahead of myself here, but could the way the promotions are run be a reason? If the promotions are run based on the quantities ordered by the retailer, the retailer will frontload his inventory by ordering during promotion periods all the quantity that he expects to sell till the next promotion. Thus demand would surge during promotions while it will sag before and after them. Before – in anticipation of the promotion, and after because the guy has already overstocked. The fact that 75% sales are made during promotions seems to go along well with this hypothesis.

Interviewer

Okay, let us suppose that the problem is exactly what you suggested. What will you do about it?

Candidate

A good solution could be to have scanner-based promotions. The items sold by retailers are scanned at the cash-counter. The discounts will be based on these items. In essence, we are telling the retailer, that they will get discounts on the items they sell during the promotion period,

not on the items they buy. This will prevent frontloading, and will encourage the retailers to promote sales by passing on some benefit to the consumer or providing us some display space etc. Finally, I think we can reduce fluctuations by strengthening the brand. That will make the retailers feel more secure.

Interviewer

That sounds impressive. But how will you convince the retailers to agree to this?

Candidate

I think the best way to convince the retailers is to make sure that they will earn more, and to make them aware of the fact. For instance, buying in advance necessitates that they warehouse the product. By making the system more “on demand” and less dependent on warehousing, we are saving them money in inventory costs. Also, we may help the retailers put the technology in place for the operation. This can be used for other products as well, saving them even more money. Besides, if the promotions are scanner-bases, they will focus on selling more, giving the product display etc. which will increase their revenues.

Interviewer

Cool. This is going well. Let us assume that scanner promotions will actually save money. Let’s consider 5,000 units

- Scan → Costs are those of 5,000 units
- Bill-back (post facto educated guess) → Costs for those 5,000 units are equivalent to the costs for 7,000 units under the scanner-based method.
- Off-invoice (before fact educated guess) → Costs are equivalent to those of 10,000 units.

Given that the profit per unit is \$15 and the cost per unit is \$10, how do the return on investments for these methods compare?

Candidate

$$ROI = \frac{\text{Profit} - \text{Cost}}{\text{Cost}} \times 100$$

Scan

$$\frac{75000 - 50000}{50000} \times 100 = 50\%$$

Bill-back

$$\frac{75000 - 70000}{70000} \times 100 = 100 / 14 = 7.14\%$$

Off-invoice

$$\frac{75000 - 100000}{100000} \times 100 = - 25\%$$

Investment Decision

Investment decision

- Useful life and present value
- Opportunity cost
- Strategic fit
- Environment (seasonality, volatility etc)
- Socio-political factors

Sample Case: Collin's Coffins (McKinsey)

This case was actually an investment case turned on its head - whether to divest.

Interviewer

The case we are about to do is for a company called Collin's Coffins. What do you know about the coffins industry?

Candidate

Absolutely nothing.

Interviewer

Good. I knew exactly that much about the industry when I was put on the case. The client is a medium-sized family-business in Europa Moldavia. The CEO has just inherited the business. Collins Coffins has one large factory (that's the capital), and manufactures two types of coffins: machine-made, which are cheaper, and hand-made, which are premium coffins. Most of the artisans for hand-made coffins are old, and there are no skilled young coffin-makers in the market.

The CEO is concerned about two issues:

1. Should Collin's Coffins continue to turn out hand-made coffins or should it start manufacturing premium coffins by machines?
2. Should he sell the business entirely? A supermarket has offered to buy the site. Collin's Coffins is a good brand, and can be sold separately to a company. That company, though, is not interested in buying the land.

One of his considerations is that he does not want to put the loyal old employees out of work.

So, let's start with the first question. What are the issues that you will consider?

Candidate:

Is it okay if I take a couple of minutes to organize my thoughts?

Interviewer

Ummm....you could do that, but I just want a quick high-level view of what you think immediately about it.

Candidate

Whether to continue to make hand-made premium coffins or to switch to machines for premium coffins is essentially a question of maintaining status quo versus changing. So we need to look at the impact of the change.

The first thing I'd like to explore is "why are the premium coffins premium?". It is quite possible that the premium coffins are premium because of the fact that they are "hand-crafted". Thus, this is the most important question we need to be asking.

Then there are other issues like costs. Machine-making of coffins seems like a high fixed-costs, low variable-costs business while hand-making them is a low fixed-costs, high variable-costs business. Thus, we need to figure out whether machine-making premium coffins requires some sort of special machinery, or we can make them in the kind of machines that we already have. We also need to figure out whether our current machine-capacity is sufficient to satisfy the demand for premium coffins or do we have to buy new capacity. If we have to buy new capacity, we need to figure out whether the investment is worth it financially.

Also, we need to figure out whether there are production bottlenecks in fulfilling the demand for premium coffins. In other words, we need to figure out if it is the case that due to the lack of skilled craftsmen, we are not able to create enough supply to cater to the demand for premium coffins.

We need to think about why is it that new, younger people are not available for making premium coffins. Are they working for other companies? Are they not learning the trade because it does not pay well? What makes the old people stick to the trade and what are the things that the younger people value?

Coming back to the customer, we need to explore what can be done to make machine-made coffins interesting enough. We need to consider the customers' willingness to pay and to change their perceptions about machine-made coffins. For instance, we may find out that machines make customization possible without a significant increase in the costs. The customers may be willing to pay premium prices for such customized coffins.

We also have to consider the fact that the aging workers won't be around forever. So what can we do to get the skills transferred to a younger generation?

I think these are the fundamental issues that I may want to look at, at first glance.

Interviewer

Good. Now, let's look at whether he should consider selling off the property altogether. A supermarket has proposed to pay \$20 millions for it. How would you determine whether this is a fair price for the property.

Candidate

The fairness of the price can be determined by comparing the offer to the going market rate for similar properties in the area. However, I'd assume that what we are interested in finding out

here is whether this is a price at which Collin's Coffins factory should be sold off to the supermarket or not.

Thus, I'd want to compare the income from the coffin business to what the supermarket has offered. Now, $\text{income} = \text{revenues} - \text{costs}$. So, would you have the costs and revenues figures for me?

Interviewer

Unfortunately, I don't. You can ask the CEO in the next meeting, but how would you estimate them now? We do know that Collin's Coffins has a 3% market share.

Candidate

Ummm...well, $\text{estimated revenues} = \text{Price} \times \text{Volume}$

You just gave a hint as to the volume in that the market share is 3%. Do we also know about the total size of the market?

Interviewer

Haha! That's clever. No, we do not know the total size of the market.

Candidate

Okay, do we have an estimate of the total population in the market in which Collin's Coffins operates?

Interviewer

Ummm...yes! The population is about 50 millions.

Candidate

Do we know about the life expectancy of that population, or would it be fair to assume the life-expectancy to be 75 years?

Interviewer

75 years is a fair estimate

Candidate

Okay, now we know that

Population = 50 million

Average life expectancy = 75 years

Yearly market demand = $50/75 = 2/3$ millions

Company's sales = $3/100 \times 2/3$ millions = $1/50$ millions

What about the prices of the coffins?

Interviewer

What about it?

Candidate

Do we know the prices of the premium and the cheap coffins and the proportion of each sold by Collin's Coffins?

Interviewer

Oh, yes. Premium coffins are 40% of the volumes and sell at \$2000, while the cheaper ones sell at \$800.

Candidate

Great! And how much does each of them cost to make and market?

Interviewer

The cost of the cheaper coffin is about \$300, and the premium one is \$500.

Candidate

So,

Income from Premium = $40/100 \times 1/50$ million \times (\$2000-500) = \$12 millions

Income from Cheaper = $60/100 \times 1/50$ million \times (\$800-300) = \$6 millions

Total yearly income = \$18 millions

So even if we look at the income from Collin's Coffins for two years, and calculate the present value at a very high discount rate like 20%, keeping the business appears to be more profitable: $PV = 18 + 18/1.2 = \$33$ millions which is greater than the \$20 million that the supermarket has offered.

Interviewer

Hmmm...interesting, especially because the real discount rate is much lower. Anyways, we are nearing the end of the interview. Are there any other factors that you would consider?

Candidate

Certainly! We discussed in the beginning that the brand may be sold separately to another company. We will need to consider the income from selling the brand. Also, if we are selling the brand to them, they have to be in the coffins business. Thus, they may consider buying the machines that we have installed. That will provide us additional money. Besides, we can negotiate a deal with that coffin maker to ensure that our loyal employees don't lose their jobs. This will be a win-win because as you said good coffin-makers are in short supply, and getting these workers will allow that company to increase its production of premium coffins, which have a higher margin.

Interviewer

Excellent! That brings us to the end of the interview. We have just about two minutes left. Do you have any questions for me?

Acquisition

Acquisition

- Purpose
 - Diversification
 - Market-share capturing
 - Geographical expansion
- Success Factors
 - Fit (synergies)
 - Vertical/ horizontal integration
 - Culture
 - Price and balance sheet (financial attractiveness)
 - Industry attractiveness
 - Location (esp. important in retail)

Sample Case: Bank UK (McKinsey)

Interviewer

Your client is Bank UK. As the name suggests, it is a UK based bank and deals in retail services like mortgages, savings, loans, and credit cards. The bank's revenues are rising, but the profits are declining. The client has asked you to identify why the profits are declining and to suggest strategies to stem the decline.

Candidate

Profits have two components – revenues and costs. I'd like to explore the following areas:

- Revenues – what is driving them?
 - A new (more expensive) product mix being sold
 - Pricing (is the revenue growth due to low pricing)
- Costs – are costs increasing disproportionately
 - The fixed costs like people, offices or advertising
 - The variable costs like transaction costs
- Industry profitability trends

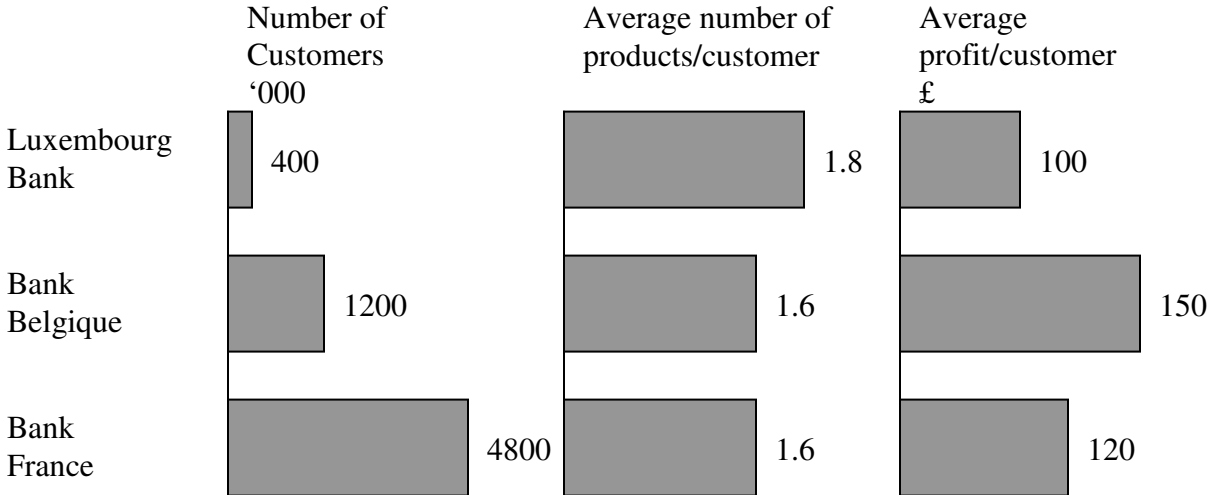
Depending on what the cause for the profit decline is, we may want to consider one or more of:

- Changing the product mix offered or promoted.
- Changing the pricing.
- Rationalizing operations.
- Reviewing fixed costs.

Etc.

Interviewer

On doing your research, you find out that the lowering of profits is due to the high cost of funding customer growth, including heavy advertising and introduction of high-cost products. Since the size of the bank is small, the CEO wants to grow by acquisition in order to achieve economies of scale. The candidate European banks are:



Which bank would you select for acquisition and why?

Candidate

Just on the basis of this chart, it looks like Bank France has a large customer base, which may be an asset as we are looking to achieve economies of scale. The profits of Bank France are the highest at 4.8 M x £120 = £576M. However, it seems like they are not the best target since even though they are 4 times of Bank Belgique, their profits per customer are lower. This may signal that they are not the best for helping attain economies of scale, although there may be other, revenue-side reasons for lower per customer profits. I will go with Bank Belgique, which certainly has the highest profits per customer, which will help Bank UK with the profitability problem directly, as well as through economies of scale as being 4 times larger (number of customers) than Luxembourg Bank, it also has 50% higher per customer profits. Seems like they do know a bit about managing their operations.

Interviewer

Interesting. Now I have a little math exercise for you. After the base figure of 400,000 customers, for each additional 100,000 customers, a further 4.125% operational cost is reduced from the cost. Total costs are 60% of revenues. Assuming equal profit per customer for both banks at £100, how much is the cost of Bank?

Candidate

Luxembourg Bank has 400,000 customers, while Bank Belgique has 1,200,000. Thus Bank Belgique has 800,000 more than Luxembourg Bank.

$8 \times 4.125 = 32 + 1 = 33\%$ less cost

Since profit per customer = 100 = 40% of revenue per customer, therefore

Costs/customer = $100 \times 60 / 40 = 150$

Total additional costs = $1.2 \text{ M} \times £150 \times 67\%$

= $1.2 \text{ M} \times £100$

= £120 M

International Expansion

International expansion

- External
 - Culture and values
 - Tastes
 - Government regulation
 - Economy and exchange rates
 - Infrastructure (transport and communication)
 - Political climate (stable/ unstable)
 - Market size and competition
- Internal
 - Strategy
 - Return on investment
 - Local partners
 - Adaptability of resources
 - Corporate values (bribery, child-labor etc)
- Quantitative factors
 - Cash flows and ROI

Sample Case: Beer Brew (Harvard)

This case has been taken from Harvard's case book. I did not get a case about international expansion in my interviews.

A major US beer company, Beer Brew, recently entered the UK market. Two years after entry, the company is still losing money. Despite a high per capita consumption of beer in the UK market, sales have been very disappointing. What explains this phenomenon?

RECOMMENDED SOLUTION

High Level Plan of Attack

- Evaluate the product mix of the company and compare it to what is selling well in the UK.
- Analyze what type of marketing Beer Brew is using.
- Understand the consumer behavior and tastes, and determine the effect on sales.

Lay Out Your Thoughts

- Use the profitability framework. Understand which factor under revenue or costs is driving the decline in profitability.

Dig Deeper: Gather Facts/Make Calculations

- Let's begin with the product mix. What kind of beer has Beer Brew been trying to sell? Currently, Beer Brew is selling two kinds of beer, a strong tasting and a light beer.
- How have the sales of both been doing? The strong tasting beer is selling slightly below average and the light beer is not selling at all.

- What about marketing? The company has spent more on marketing than the industry average for that region.
- Is it a highly competitive industry? It's about average. The industry is fairly fragmented. There are no dominant players.
- Any problems with distribution channels? No.
- What about pricing and placement of the product? To be competitive, Beer Brew undercut its price significantly to try to capture customers. Their beer is sold just about everywhere other brands are sold.
- What are the current best sellers of beers in the UK? Guinness, Toby, and a few others.
- What kind common characteristics do they have? They are all moderate in alcohol level, dark, and strong tasting.
- How does that compare to Beer Brew's products? Beer Brew's strong tasting brand is higher in alcohol, and market tests show that it tastes better. The light beer is low in alcohol and calories, and again tastes great.
- Are there any light beers on the market? Very few. Mostly local. Beer Brew saw this as an opportunity to cash in on the light beer industry that has taken the US market by storm.
- Since most of the beer consumed in the UK is dark, and dark signifies strong beer, does the light color of the beer signal to the consumer that somehow the beer is weak? Perhaps, but the company figured that once the consumer tried it, the color wouldn't make any difference.

Key Findings

- It seems that the consumer in the UK has unique drinking habits. After further inquiry, we find that the average British drinker values dark beer over any other factor. It seems that the dark color has a psychological impact on the consumer, relating it to strength, masculinity, getting their money's worth, etc.
- The light beer industry is undeveloped in the UK because the health movement in the US has not mobilized in Europe yet.
- Also, because the price of Beer Brew's products is much cheaper than other brands on the market, it is portrayed as a low quality "American beer."
- There has been a dilution of the brand equity.

Recommendations

- Change the color of the stronger tasting beer. Make it darker and advertise it as the better tasting darker beer, with more alcohol.
 - Match the price to other premium beers that focus on the same market segment.
- Drop the light beer product line. The UK is not ready for it yet.

New-Product Introduction

New-product introduction

- Customer
 - Needs
 - STP
 - Brand proliferation
 - Price-elasticity
 - Promotion and promotional costs
 - Distribution
 - Customer alignment
 - Experience
- Competition
 - Many
 - Growing market
 - Eat the young?
 - Few
 - Low cost
 - Differentiation
 - None
 - Barriers to entry
 - First-mover advantage
- Company
 - Finances
 - Operations ability
 - Marketing

Sample Case: Innovation Factory (McKinsey)

Interviewer

This is a case on which I worked on about 8-10 years ago. I like this because it is different from most usual problems. Your client is the president of an electronics group, which is essentially an R&D think-tank. It is a very innovative place which employs 100 engineers who buy components and create prototype innovative products for cars. This place is bursting with energy, and they already have many great products to their credit.

For instance, they have already developed a prototype navigation system. Similarly, they discovered that many of the deaths due to road accidents are preventable. The problem is that medical services don't reach there in time either because they don't get to know about the accident at all or they don't know exactly where it happened. In most such accidents, the victims either lose consciousness or are decapitated. So they have created this device which is a combination of GPS, airbags and cell phones. The way it works is that on impact, the airbags inflate, and the cell phone calls 911, pinpointing the directions using the GPS.

These guys are full of ideas, and some of the projects under consideration are night-vision for cars (using F-14 technology), backing sensors and so on.

However, their costs range is high. The fundamental issue is that the engineers are like kids in a candy shop. They are doing very exciting work and love their jobs. However, there are random projects going on all over the place. The president wants to streamline the operations and focus on 10-20 projects rather than the more than 100 that are going on right now.

How will you prioritize the projects, deciding which ones to focus on and which ones to abandon? How will you convince the engineers, who are basically innovative brains and do not understand business, of your decision?

Candidate

To prioritize the projects, I will probably so by the basic economics, focusing on the projects that are likely to bring in the most profits. Thus, some of the factors I will look at are:

- Probability of successful completion
- Probability of an automobile manufacturer buying it/ of commercialization
- Demand and price elasticity in the market
- Speed to market because money has a time value
- Practicality of the idea in general

To convince the engineers of the decision, I would focus on the following issues:

- Speed to market
- Ease of selling
- Practicality of mass-production
- Share of royalty
- Profits: Success of the company, and individual success

Interviewer

Okay, interesting. Let's take these one by one. You said that you want to prioritized based on the economics. How do you get a handle on the expected profits?

Candidate

I will proceed in a structured manner, starting off with Profits = Revenues – Costs (or expected profits = expected revenues – expected costs). We can find these figures by subjectively assessing probabilities of success in different durations and to different levels and calculating the expected monetary values.

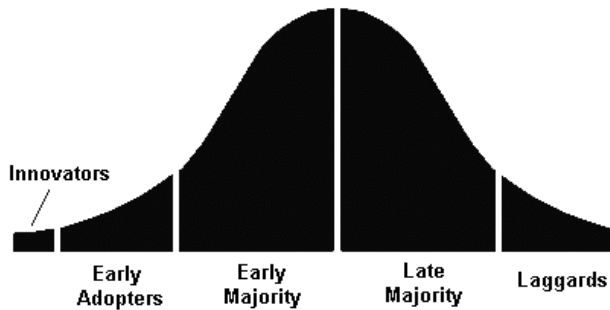
I am assuming that the costs aspect could be as follows:

I would probably not want to break this down into fixed and variable costs as you said the company is engaged in creating prototypes. Thus, variable costs are wiped off the slate since quantity produced is equal to one. They only have R&D costs which can be split into human resources, material and overheads apportioned. The human resources costs would likely follow a similar pattern, and would depend on the time taken in completion.

To deal with the revenues, I will use the simple equation

Revenues = Price x Volumes

Please understand that since we are dealing with prioritization, I am looking at revenues, costs and profits for individual projects rather than the company. I guess we can have some estimate of the volume by looking at the product life cycle.



At launch we would have only the innovators and the early adopters and we'll have to cross the chasm before being able to reach an early majority. Normally, I would think, the only role costs play in pricing is to make sure that at the volume and pricing, costs including R&D and fixed+variable costs of mass production are covered. The pricing is typically based on what the consumer is willing to pay for it. To be able to make a better analysis of the revenues, both from the prices perspective and the volume perspective, I will need to understand how this firm earns its revenues. Can you help me with that?

Interviewer

Sure. The company has good relations with an automobile manufacturing company to which it sells it's ideas. The automobile company hands it a royalty check based on estimated revenues depending on how they can price it. They also have the option of earning the royalties over 5-6 years based on actual revenues.

Candidate

So that rules out cost-considerations, pretty much?

Interviewer

It does.

Candidate

Is it fair to assume that volumes lose much of its relevance as the automobile company will fit the product in all cars of a particular model.

Interviewer

That is a fair assessment.

Candidate

Since pricing for end-consumer seems to be an important factor here, I'd want to explore what the end-consumer is willing to pay for the product.

Interviewer

And how would you go about doing that?

Candidate

By conducting some market research. Maybe even conducting a conjoint analysis on automobiles with different products, and prioritizing on the basis of that?

Interviewer

What is conjoint analysis?

Candidate

Conjoint analysis is a market research technique wherein the customers are presented with products with different attribute options, and their responses are analyzed to figure out which attribute options they prefer and how much they value each. Ummm...but yeah, there's a problem that to conduct this analysis we need prototypes, and here we want to do the analysis before the prototype is created. I guess that could be solved by paper prototyping or giving out the product idea in some way.

Interviewer

Hmmm...but this method assumes that consumers know about their preferences. The engineers would argue that since these are very innovative products, consumers don't have enough information to develop sensible preferences before they can actually use them.

Candidate

Perhaps we could try using an economic-value based pricing model then.

Interviewer

What does that mean?

Candidate

It essentially means we find out how much economic benefit the consumer gains from using the product. That economic benefit is then split between the consumer and the manufacturer.

Interviewer

Okay, so how do you gauge the economic benefit a GPS has over a \$5 map?

Candidate

I guess we could look at the average time saved, put it against the average worth of the consumers' time. Ummm...I guess we are not reaching anywhere with this approach. Could we possibly compare the products to similar products produced by competition?

Interviewer

For normal products you can do reference pricing. But, as I said, these are highly innovative, completely new products. There is nothing you can compare any of these new products to.

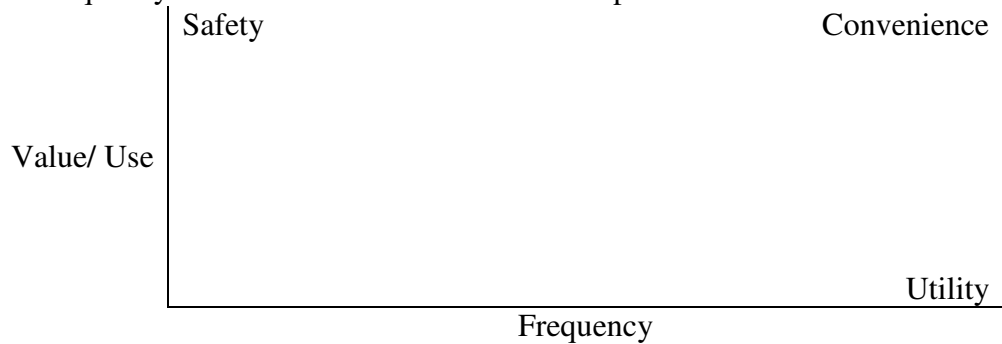
Candidate

I guess the only way left is to look at the products sold in the past or selling at present. I suppose it should be possible to determine price-elasticities of demand for different categories of products. For instance, demand would normally be less elastic for safety products. In other words, people

would be willing to pay more for products that they perceive as making them safer on the road, just like they are normally willing to pay more for kids' pharmaceuticals.

Interviewer

Right! That's exactly what we did. We are almost out of time here, but let me tell you what we did in this case. Following the same logic as you did, we concluded that there are different attitudes that people have towards different types of products. We plotted all their products on two axes – value and frequency of use. We found that there was a pattern like this:



The products that are infrequently used but are perceived as having high value are safety products – in fact you wish you never have to use them. The GPS-Airbag-Cellphone combination I mentioned earlier falls in this category. Then there are products that are useful, but are used relatively frequently. These are convenience products like GPS. Then there are items that are less useful but are very frequently used...like power windows. These, we called utility items.

Invariably, products in the top-left corner were more successful. That's where we took the leap of faith, and said that in general people are willing to pay more for safety products, and are more likely to buy them. We recommended that the company prioritize their products on the basis of this chart...based on where the proposed product falls on this chart. Which, of course, they did.

Candidate

Wow! This was indeed a very different and interesting case. I thoroughly enjoyed it. (This was an extraordinary case in several ways. For one, the interviewer spoke more than I did, which is very uncommon for a case-interview. Then, the way the case is set up, applying traditional frameworks to crack it takes up a lot of time, though at the end you do reach close to the answer as I did. Lastly, this is the only McKinsey case without numbers that I have seen)

Pricing

Pricing

- Strategy
 - Cost-based pricing
 - Price-based costing
 - Market skimming
 - Low cost
- Product
 - Differentiation
 - Relevance
 - Perishability
- Substitutes
 - Closeness
 - Availability
- Customers
 - Elasticity
 - Monetary benefit
 - Switching cost
 - Risk profile
 - Criticality
- Market
 - Product life-cycle
 - Market-size
 - Demand and supply

Sample Case: Heart Corp (McKinsey)

Interviewer

Our client Heart Corp is a global medical-devices manufacturer. In particular it manufactures cardiology devices called stunts. Do you know what a stunt is?

Candidate

I'm sorry, I don't.

Interviewer

Don't worry, not many people do. A stunt is a wire mesh tube that is installed in the body of the patient to clear up heart blockages.

Now, Heart Corp has developed a new device, that we will call Device X, which is a fundamental improvement over traditional stunts.

Heart Corp has decided to launch it first in Europe and then, 1 year later, in the USA. The management is struggling with what price they should set for Device X in the Europe.

Since it is a breakthrough product, they obviously wish to charge a price premium for it.

What are the key inputs that will help you help them set a price?

Candidate

- I will be thinking about several factors, the first of which is differentiation – how much better is our product compared to the others in the market?
- Is this difference relevant to the customer – though at first glance, it does look like it is – and how relevant is it?
- What are the substitutes available and how are they priced?
- Does it have any side-effects?
- What are the volumes we expect to sell at different price levels? In other words, what is the customer's price-elasticity – though it is relatively low for medical products?
- What are the fundamental economics in terms of sunk, fixed and variable costs?
- What is the product's economic value to the customer – how much money does it save?

Interviewer

Interesting. Let us follow-up a bit on the economic value to the consumer.

Candidate

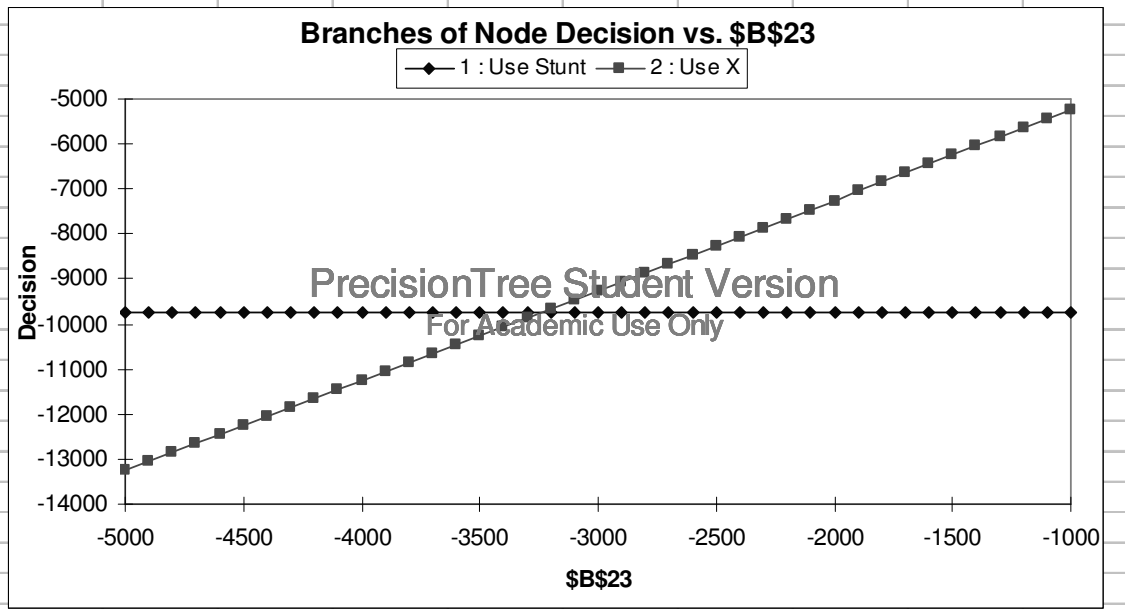
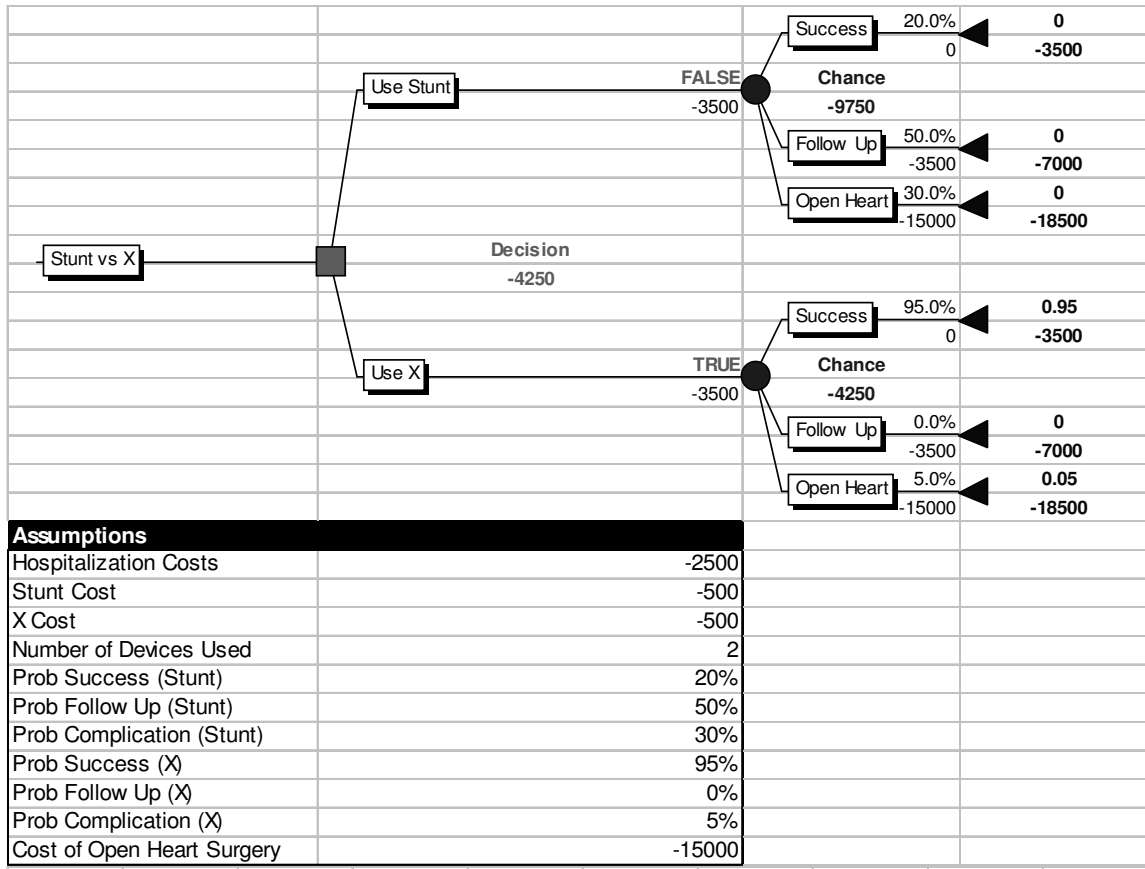
What are the costs associated with a surgery with stunt, and how do these change when X is used?

Interviewer

- We know that for each surgery, there are hospitalization costs of 2500.
- Then there is the cost of the device itself. Stunts costs \$500 each, and two are used in each operation.
- Once the operation is done, there is a 20% chance that the surgery will be 100% successful.
- In 50% cases, follow-up surgery is required with costs identical to above.
- For the purpose of this interview, we will assume that this is not a chain or a nested loop, and the follow-up surgery is required only once. Follow-up to follow-ups are not required.
- There is also a 30% chance that there will be complications, necessitating open-heart surgery, which costs \$15000.
- If device X is used, there is a 5% chance of complications, and no follow-up surgery is required.

Candidate

(Hmm...classical decision tree)



As is clear from the sensitivity chart above, the decision changes at \$3250 per device.

Of course, in the interview, you will not have the luxury of Excel or Palisade’s Decision Tools Suite. The above discussion has been given just to help direct your thinking. Here is how I did it in the interview:

With a stunt,

Average Costs = $2500 + 2 \times 500 + (0.2 \times 0 + 0.5 \times (2500 + 2 \times 500) + 0.3 \times 15000)$

With X (assuming variable A represents price of X),

Average Costs = $2500 + 2 \times A + (0.95 \times 0 + 0 \times (2500 + 2 \times A) + 0.05 \times 15000)$

At the tipping point, these costs should be equal, so

$2 \times 500 + 0.5 \times 3500 + 0.3 \times 15000 = 2 \times A + 0.05 \times 15000$

$A = ((0.3 - 0.05) \times 15000 + 1750 + 1000) / 2$

$A = 6500/2$

$A = 3250$

Thus, purely on the basis of the financials, the maximum price that can be put on the device is \$3250. However, it does not mean that we necessarily put the price of \$3250 on the device for there are other factors to be considered.

For one, 3250 is the price at which the customer will be ambivalent or indifferent to the two options, were they to decide on purely financial criteria. Our objective is not to make them indifferent, but to make them favor X. Typically firms seek to increase the value proposition of their product by pricing it lower than the economic value realized by it, so that the customers benefit from their product, and thus prefer it. In essence, this means that Heart Corp should price X less than 3250.

In this calculation, I have not included a portion of economic benefit that will accrue from fewer days of hospitalization...things like loss of income. Also, non-monetary benefits like Health Adjusted Life Years (HALY) of the new device should be considered in any serious pricing exercise.

Anyways, to place the lower limit, we need to look at costs and make sure they are sufficiently lower than such a lower limit. If we have sufficient production and distribution capacity, as well as low enough costs, we may want to price X at or slightly under 500 to make it a decisive advantage, and practically replace the stunt market with market for X. Practically, though, my feel is that Heart Corp would do well to realize 50% of the economic benefit and that such a position will also provide it a good value proposition.

Interviewer

So, what price would you recommend?

Candidate

I would recommend a price of about \$2000.

Interviewer

Are there any other factors that you would consider?

Candidate

We have to keep in mind that as for most medical devices, the price-elasticity would be low. We need to weight that against the total size of the market and also include the sunk costs of R&D, testing and approvals. We also need to consider whether we have patents, for how long we have

them, and how easily replicable the production is. Are there any adverse side-effects of the device? Are there any positive side-effects of the device? Those would probably be the main things I would think about.

Interviewer

If your customers are hospitals that perform 75 procedures per year and have a budget of \$900 thousand for these procedures, how would you price the device X?

Candidate

(Ouch! That hurts – I went through the whole calculation and pricing as if the customer was actually the patient...never once asking the interviewer the fundamental question: who is our customer?). OK. I performed the above calculations assuming that the patient is the customer. The hospitals that are my customers...you said they perform 75 procedures per year. Does that refer to original treatment or does it include follow-up surgery as well?

Interviewer

75 is the total number of surgeries they perform.

Candidate

OK. So this means they perform 50 operations and then have to perform 25 follow-up operations. Thus they are currently spending:

$$75 \times 3500 + 15 \times 15000 = 15 \times (17500 + 15000) = 15 \times 22500 = 337,500$$

We have to price the device so that they stay well within budget. Therefore (assuming P= price of X)

$$50 \times (2500 + 2 \times P) + 2.5 \times 15000 \leq 900,000$$

$$100 \times P \leq 900,000 - 125,000 - 37,500$$

$$P \leq 737,500 / 100$$

$$P \leq 7,375$$

This upper limit is higher than the limit of 3,250 we had set according to the economic benefit earlier. Thus, the earlier answer holds. I will price the stunts at 2000. Thus the hospital will spend:

$$50 \times 6500 + 2.5 \times 1500$$

$$= 325,000 + 37,500$$

$$= 362,500 \text{ which is well under its budget.}$$

Through this price, it can also be demonstrated that just for the increase of 25,000 dollars, the hospital is able to provide better service, save its patients money, perform more operations (lesser hospitalization days increase availability of beds), and increase the HALY of its patients, all of which go to enhance its reputation and ultimately its revenues and profits. Umm...actually, a better way could be to tell the hospital that they can realize these gains without spending extra...

$$50 \times (2500 + 2 \times P) + 2.5 \times 15000 = 337500$$

$$100 \times P = 337500 - 125000 - 37500$$

$$P = 175000 / 100$$

$$P = 1750$$

Thus, I will price X at 1750.

Interviewer

(Smiled through the last part – I guess this was the answer he was looking for). Good. Okay, let's say you price at \$1750 per device. You have a bulk pricing system.

- All customers get a discount of \$250 per device. No further discount is given on the first 10 devices.
- Devices 11-50 get an additional discount of \$200 per device
- Devices 51 onwards get another \$300 off per device
- There is also a loyalty discount, wherein if the customer spends over 50% of his budget on X, he is given 10% discount, over and above other discounts, on the total bill.

What is the average price if the average number of procedures your customers have every year is 75 and their average budget is \$900K?

Candidate

Is it fair to assume a normal distribution of the number of procedures? If so, what is the standard deviation?

Interviewer

Excellent question. But we are running out of time. It won't be necessary to use the distribution. Just use the average values.

Candidate

75 procedures translate into 150 devices.

The first 10 have a discount of \$250 each...so sell for $1500 \times 10 = 15000$

Next 40 have a discount of \$450...so sell for $1300 \times 40 = 52000$

Next 100 have a discount of \$750...so sell for $1000 \times 100 = 100000$

This comes to a total of 167000

150 devices sold at 167000

Average price per device = $167000/150 = 334000/300 = \1113.33

Interviewer

We have talked about two possible customers for X: the patient and the hospital. Can you think of any other customers? What will be your pitch in selling to them?

Candidate

Sure, I can think of the government and insurance companies as possible customers. As for insurance companies, the premise will be the same as patient – they will have to pay less for the procedure...in fact, this will be even more effective on them as an individual operation is a low-stakes game for them and they look at the average figures. Also, if HALY is increased, their future pay-outs are also decreased. So they should be pressing hospitals to use X instead of stunts. As for governments, I guess I will appeal to the welfare state part in that the HALY of citizens is increased...fewer days of hospitalization means less of productivity is taken away off the nation. Yeah, I think those are the primary possible customers.

Increase Revenues/ Growth

Increase Revenues

- Customers
 - More new customers
 - Retain more existing customers
 - Sell more to existing customers
 - Elasticity
- Price
 - Increase
 - Decrease
- Product
 - New product
 - Improvement/ differentiation
- Promotion
 - Market responsiveness
 - Cost of promotion
- Acquisition
- Geographic expansion
- Tie-ups with other sellers

Sample Case: Designer Depot (McKinsey)

Interviewer

So, let's get started with the case.

Candidate

Is it okay if I take notes?

Interviewer

Of course. In fact, I would be pretty disappointed if you didn't take notes. Today, we will talk about Designer Depot – a national retailer of luxury women's clothing. It is a very profitable business, and has a stable, dominant market position. The problem is that it is reaching the limits of geographical expansion. The company has retained McKinsey to help it maintain its growth. What are the avenues of growth available to Designer Depot?

Candidate

May I take a couple of minutes to structure my thoughts?

Interviewer

Sure. We'll start when you are ready.

Candidate

(after about a minute). Okay, the major avenues of growth available to Designer Depot are:

- Get more new customers

- Sell more to existing customers
 - Create more occasions
 - Sell more on each occasion
- Introduce new products
- Increase distribution density
- Expand internationally
- Tie-up with other chains
- Acquire other chains

Interviewer

Good. Let's explore the acquisition path a little more. What are the things you will keep in mind while considering an acquisition target?

Candidate

I will look for:

- Financial attractiveness
- High number of synergies
 - Designers – are their opportunities for consolidation.
 - Brands – the brand should not be incompatible and should not dilute the brand of Designer Depot
 - Market or location – location is important in retail, and while increase in distribution density may be good, having two stores in the same mall may not be such a great idea. A more uniformly dispersed distribution may be better.
 - Customers – if the new chain will bring in new customers, that should be good, as long as it does not alienate the existing customers.
 - Management – is the management equipped to handle this.
 - Sourcing of materials etc – there should be opportunities for consolidation of supply chain.
 - Competition – will it give us a more dominant position.

Interviewer

Designer Depot is looking to acquire a chain called Frivolous Fashion with the objective of growing – of getting access to new customers. The customer base for Designer Depot and Frivolous Fashion is the same. What will be the percent growth in Designer Depot's customers on acquisition of Frivolous Fashion, given that:

200M purchasing adults in US

5% of all women purchase designer

50% of these purchase at DD

20% of the 5% purchase at FF

80% of women at FF also purchase at DD

Candidate

New = 20% of 20% of 5% of 50% of 200 M

20% 5M = 1 M

20% 1M = 200K

2.5 M

200/2500 = 8% increase

Interviewer

That's not much good then. Designer Depot is certainly looking for a greater than 8% increase in new customers. So what are the growth options now?

Candidate

All the ones above that we haven't tried. And, of course, looking at other acquisition candidates.

Interviewer

Right. What does this table tell you?

Share of fashion spending by outlet (%)

	Customers who have purchased at Designer Depot in the past 12 months	Customers who have purchased at Designer Depot but not in past 12 months	Customers who have never purchased at Designer Depot
Designer Depot	35	0	0
Comp 1	3	1	1
Frivolous Fashion	5	1	3
Comp 2	1	1	1
Comp 3	1	1	2
Comp 4	20	6	6
Boutiques	20	45	55
Other department stores	15	45	32

Candidate

Three very important things. One – Designer Depot's customers seem to be quite loyal.

Secondly, I'd probably examine Comp4 for acquisition. He can bring in more new customers than any other individual competitor. Perhaps even more importantly, many of our current customers shop there. So acquiring Comp4 is likely to significantly increase our share of wallet.

Thirdly, I'd be very interested in finding out what the boutiques and other department stores are doing, as they certainly seem to have a huge chunk of the market. I mean even if we assume that due to market dominance of Designer Depot, the third column constitutes only 10% of the total market, these two categories share 87% of this 10% among them. Besides even Designer Depot's current customer go there in large numbers, which could be a big headache. Department stores might be playing the price-card, which we may not want to do with our brand, but may want to counter using the acquired brand. But I have no clue what the boutiques are doing and that is an area I would definitely want to explore.

Interviewer

Great. We are right on time. Do you have any questions for me?

Practice Cases

Here are some practice questions for you to enjoy. Please note that since these cases have been pulled from various resources, they do not have a uniform format.

The sources of the content, wherever known, have been recorded. I am grateful to the sources for the content used in this book.

Please do note that cases given by different firms warrant subtle differences in approach. McKinsey case tend to start broad, dive quickly into details, stop to take a broad look again and dive back into details. Bain interviewers like the candidates to take a stand on issues like exact pricing, after having gone through the process. BCG love creativity and diagrams. Of course, these are just general pointers, and fairly typical situations...your real case may or may not be like this.

Cases provided by the firms

These cases have been provided by consulting firms as samples of cases that a candidate may encounter in the interview. Please note that these are only samples and are **not** the only types of cases that each firm uses.

The A.T.Kearney cases were provided unnamed. I have taken the liberty of naming them in the interest of easy reference.

A.T.Kearney - Bicycle Blunders

This is not an officially recommended case from A.T.Kearney. It is only a sample practice case provided by Vishy Padmanabhan, Goizueta MBA '04. A.T.Kearney uses a wide variety of cases in its interviews.

- Your client is a manufacturer of bicycles
- They have been in business for 25 years
- They manufacturer and sell three categories of bicycles:
 - Racing bikes: High end, high performance bikes for sophisticated cyclists
 - Mainstream bikes: Durable, but not overly complicated bikes for everyday riders
 - Children's bikes: Smaller, simpler versions of their mainstream bikes for children
- Profits at your client have decreased over the past five years

What is driving the decline in overall profits? What recommendations might correct the situation?

Suggested solutions:

The first question is to determine what has caused **overall** profits to decrease. To accomplish this the candidate must first understand what has transpired in each of the three product categories

over the past five years during which profitability has slipped. The following are questions and answers that would be provided in an interview scenario:

- What are the client's margins for a bicycle in each of the three segments?
 - Racing: Cost = \$600/unit, Profit=\$300/unit
 - Mainstream: Cost = \$250/unit, Profit = \$75/unit
 - Children's: Cost = \$ 200/unit, Profit = \$50/unit
- What has happened to the market size of each of the three segments over the past five years?
 - Racing: Has remained constant at its present size of \$300MM
 - Mainstream: Has increased at 2% growth rate per year to its present size of \$1.0B
 - Children's: Has increased at 3% growth rate per year to its present size of \$400MM
- What has happened to our client's market share in each of these segments?
 - Racing: Market share has decreased from 60% to 30%
 - Mainstream: Market share has increased from 0% to 5%
 - Children's: Market share has increased from 0% to 3%
- Who are the client's major competitor's in each market segment? What has happened to their market share in each segment over the past five years?
 - Racing: There is one main competitor and a host of small firms. Your main competitor has increased market share from 30% to 50%
 - Mainstream: There exist many, large competitors, none of which holds more than 10% of the market
 - Children's: As in the mainstream segment, there are many competitors, none with more than 10% of the market

The above information provides enough information to put together a picture of why profits have decreased over the past five years: Your client, with a commanding position in a flat market segment (racing), expanded into new segments (mainstream and children's). As this occurred, market share decreased dramatically in the most lucrative segment (racing), creating an unfavorable mix.

The extent to which profits have decreased can be deduced from some quick math : profits have slipped from \$60MM five years ago (=60% x \$300MM x 33% racing margin) to \$44MM today (= (30% x \$300MM x 33% racing margin) + (5% x \$1B x 23% mainstream margin) + (3% x \$400MM x 20% children's margin)).

The dramatic decrease in market share in the racing segment is at this point still unexplained. Questions that would help formulate an explanation include:

- Have there been any major changes in product quality in your client's racing product? Or in its main competitor's racing product?
 - No
- Have there been any major price changes in your client's racing product? Or in its main competitor's racing product?
 - No
- Have there been any major changes in distribution outlets for your client's racing product? Or for its main competitor's racing product?
 - Yes. Previously your client and its main competitor in the racing segment sold exclusively through small, specialty dealers. This remains unchanged for the

- competition. Your client, however, began to sell its racing bikes through mass distributors and discount stores (the distribution outlets for mainstream and children's bikes) as it entered the mainstream and children's segment.
- How do the mass distributors and discount stores price the racing bikes relative to the specialty stores?
 - Prices at these stores tend to be 15 to 20% less.
 - What percent of your client's racing sales occur in mass distributors and discount stores?
 - Effectively none. This attempt to sell through these distributors has failed
 - How has the decision to sell through mass distributor's and discount stores affected the image of the client's racing product?
 - No studies have been done.
 - How has the decision to sell through mass distributor's and discount stores affected your client's relationship with the specialty outlets?
 - Again, no formal analysis has been performed.

Although some analysis and/or survey should be performed to answer more conclusively the last two questions, a possible story can be put together. There has been no appreciable change in either quality or price (or any other tangible factor) of your client's racing product relative to its competition. It is not the product that is the problem, but rather its image. As your client came out with lower end, mainstream and children's products and began to push their racing segment through mass distributors and discount outlets, their reputation was compromised. Additionally, the presence of the racing products in the discount outlets has put your historic racing distributor (the specialty shops) in a precarious position. The specialty shops must now lower price to compete, thereby cutting their own profits. Instead, they are likely to push the competition's product. Remember, your client has no direct salesforce at the retail outlets. The specialty shops essentially serve as your client's sales force.

The above analysis offers an explanation of what has affected the top side of the profitability problem. Still to be examined is the cost, or bottom side, of the profitability issue. Questions to uncover cost issues would include:

- How does the client account for its costs?
 - The client has a single manufacturing and assembly plant. They have separate lines in this facility to produce racing, mainstream and children's products. They divide their costs into the following categories: labor, material and overhead. Overall costs have been increasing at a fairly hefty rate of 10% per year.
- What is the current breakdown of costs along these categories for each product segment?
 - Racing: Labor = 30%, Material = 40%, Overhead = 30%
 - Mainstream: Labor = 25%, Material = 40%, Overhead = 35%
 - Children's: Labor = 25%, Material = 40%, Overhead = 35%
- How has this mix of expenses changed over the past five years?
 - In all segments, labor is an increasing percentage of the costs.
- Does the basic approach to manufacturing (i.e. the mix of labor and technology) reflect that of its competition?
 - Your client tells you that there is a continuing movement to automate and utilize technology to improve efficiency throughout the industry, but it is his/her opinion that

their approach, maintaining the “human touch”, is what differentiates them from the competition. (Unfortunately, he’s right!!)

- Is the workforce unionized?
 - Yes
- What is the average age of the workforce?
 - 52 and climbing. There is very little turnover in the workforce.
- What is the present throughput rating? How has it changed over the past five years?
 - Presently the plant is producing at about 80% of capacity. This has been decreasing steadily over the last several years.
- What is the typical reason for equipment shutdown?
 - Emergency repair
- Describe the preventive maintenance program in effect at the client’s facility?
 - Preventive maintenance is performed informally based on the knowledge of senior technicians.
- How often has equipment been replaced? Is this consistent with the original equipment manufacturer’s recommendations?
 - The client feels that most OEM recommendations are very conservative. They have followed a philosophy of maximizing the life of their equipment and have generally doubled OEM recommendations.

The above information is sufficient to add some understanding to the cost side of the equation. Your client has an aging workforce and plant that is behind the times in terms of technology and innovation. This has contributed to excessive breakdowns, decreased throughput, increased labor rates (wages increase with seniority) and greater labor hours (overtime to fix broken machines).

In proposing recommendations to improve the client’s situation, there is no single correct approach. There are a number of approaches that might be explored and recommended. The following are some possibilities:

- Abandon the mainstream and children’s segment to recover leadership in the racing segment. Issues to consider in this approach:
 - How much of the racing segment is “recoverable”?
 - What are the expected growth rates of each segment?
 - How badly damaged is the relationship with the specialty outlets?
 - Are there alternative outlets to the specialty shops such as internet sales?
 - How will this move affect overall utilization of the operating facilities?
- Maintain the mainstream and children’s segment, but sell under a different name. Issues to consider in this approach:
 - Is there demand among the mass and discount distributors for bicycles under their name?
 - What additional advertising and promotions costs might be incurred?
 - What are the expected growth rates of each segment?
 - What is driving the buying habits of the mainstream and children’s market?
- Reduce costs through automation and innovation. Issues to be considered:
 - What technological improvements are to be made?
 - What are the required investments?
 - What are the expected returns on those investments?

- How will these investments affect throughput?
 - To which lines are these investments appropriate?
 - Are the mainstream and children's segments potentially "over-engineered"?
 - What impact will this have on the required workforce levels?
 - If layoffs are required to achieve the benefits, what impact will this have on labor relations?
- Reduce costs through establishing a formal preventive maintenance program. Issues to be considered:
 - What organizational changes will be required?
 - What analysis will be performed to determine the appropriate amount of PM?
 - What training is required of the workforce?
 - What technical or system changes are required?
 - How will the unionized workforce respond?

Key takeaways:

This case can prove to be lengthy and very involved. It is not expected that a candidate would cover all of the above topics, but rather work through selected topics in a logical fashion. It is important that the candidate pursue a solution that considers both revenue and cost issues to impact profit. Additionally, a candidate's ability to work comfortably with the quantitative side of this case is important. The above recommendations for improving profitability are just a few among many. The candidate may come with their own ideas.

A.T.Kearney - Cookie Cutter

This is not an officially recommended case from A.T.Kearney. It is only a sample practice case provided by Vishy Padmanabhan, Goizueta MBA '04. A.T.Kearney uses a wide variety of cases in its interviews.

- Your client is a U.S. based manufacturer of branded cookies (cookies that carry the name of the manufacturer)
- Recently private label cookies (those carrying the name of the retailer) have emerged and threatened branded cookies
 - Private label cookies emerged five years ago
 - Two and one-half years ago they made up 10% of the overall cookie market (brand being the other 90%)
 - Today they make up approximately 20% of the overall cookie market (i.e., there has been a steady, linear increase of private label portion of the overall cookie market during the past five years)
 - The overall cookie market has been relatively flat over the past five years
- Private label cookies are made by the same manufacturers who make branded cookies, they are just sold under the name of the retailer
- There are essentially three major competitors to consider:
 - Your client, who makes only branded cookies
 - A second major player, that makes both branded cookies and supplies cookies for private labelers
 - A collection of small outfits, that make both branded cookies and supply private labelers
- Distribution occurs primarily through one of two types of outlets:
 - Grocery outlets: all grocers sell branded cookies, most also carry their own private label cookies. This represents approximately 90% of total cookie sales
 - Mass merchandisers (ex. Walmart, Sam's, etc.): sell only branded cookies

How large would you estimate the overall U.S. cookie market to be in terms of \$?

How large of a threat do you believe the trend in private label cookie sales to be to your client?

Based on your assessment, what is an appropriate strategy for your client to follow?

Suggested solutions:

The first question, estimating the size of the U.S. cookie market, has no right or wrong answer. It is a test of a candidate's ability to make reasonable assumptions and work quickly with numbers on an "order of magnitude" level. One acceptable response would be to estimate the number of U.S. households, estimate household consumption over some period of time, estimate the average cost of a bag of cookies, and project out for one year. In this case, after an estimate has been made, the candidate would be told to assume the market size is \$1Billion to simplify any future calculations. As stated in the upfront information, the market is assumed to have been flat for the past five years.

The second question is more involved. It involves determining to what extent your client is threatened by the increasing percent of the overall cookie market represented by private label sales. To better answer this question information should be gathered pertaining to what is driving the demand for private label cookies, to what extent this has already affected your client's sales, and what the likelihood is for the trend to continue. The following are questions and answers that would be provided in an interview scenario:

- What are the sales trends for the client over the past five years?
 - Your client's sales have been flat at \$600M for the time frame of five to two and one-half years ago. Over the past two and one-half years, sales have decreased steadily down to a present level of \$560MM.
- How has market share of the private label segment been split over the past five years between your client's main competitor and the other smaller players?
 - The smaller players combined had 100% of the private label subsegment five years ago. Two and one-half years ago your client's main competitor began supplying private labelers. Today, this main competitor owns 40% of the private label subsegment, the smaller players own the remaining 60%
- How has market share of the branded segment been split over the past five years?
 - Your client held 60% of this segment five years ago, 67% two and one-half years ago and 70% today. Its main competitor held 30% five years ago, 25% two and one-half years ago and 23% today. The combined smaller players owned 10% five years ago, 8% two and one-half years ago and 7% today.

Analysis of the above information tells a very important story. The private label segment was launched five years ago by the smaller players. As private label first cut into the branded segment, it came at the expense of your client's main competitor and the smaller players, not your client. In response to this, your client's main competitor entered into the private label segment two and one-half years ago. This further hurt their own sales and those of the smaller players, but also began to hurt your client's sales. Additional information is required to understand what is driving the demand for private label cookies

- How does the quality of a private label cookie compare to that of a branded cookie?
 - Consumer studies have shown that there is a noticeable difference in taste, texture and quality in favor of the branded cookies
- At the manufacturing level, what is the difference in cost of production and price between branded and private label products?
 - It costs approximately \$1.50 to manufacture a bag of private label cookies which will sell for \$2.00 to retailers. It costs approximately \$2.00 to manufacture a bag of branded cookies which will sell for \$2.75.
- How do the same numbers translate at the retail level?
 - A retailer, paying \$2.00 for private label cookies can sell that product for \$2.50. The \$2.75 bag of branded cookies can be sold for \$3.50.

The key finding is that from a cost-price-margin perspective it is advantageous for both the manufacturers and the retailers, with all else equal, to sell a bag of branded cookies. Other factors must be contributing to the demand for private label cookies. Think about the incentives at each level in the chain (manufacturer, retailer, consumer). The following questions can help fill in details":

- Have any of the manufacturers been able to gain additional shelf space for branded products by supplying grocers with private label products?
 - No
- Has there been excess capacity at your client, its main competitor or the smaller competitors that has been used up through the manufacturing of private label products?
 - There was some excess capacity at the smaller competitors and your client's main competitor (your client is unsure as to how much).. There is little excess capacity anywhere in the industry today.
- Has your client's relationship with its retailers suffered as a result of it not supplying private label products?
 - Not noticeably
- Are grocery stores using private labels in other food categories?
 - Yes, there has been a major push by grocery stores to populate shelves with private labels
- Is competition increasing or decreasing among grocers?
 - Generally increasing. Grocer chains are expanding and the number of grocers to be found serving a given area has generally increased over the past five years
- What general macroeconomic trends have occurred over the past five years?
 - The economy has been slowing over the past five years. There is concern about recession

The above information begins to expose a clearer story. A number of factors have contributed to the emergence of the private label segment: manufacturer's interest in utilizing excess capacity, grocer's desire to sell products with their name on it (they may believe this creates return customers in an increasing competitive environment), consumers concerns about a troubled economy (price vs. quality tradeoffs).

At this point the candidate would be encouraged to state what they believe the magnitude of the private label threat to be to the client. There is no right answer. One can argue either way.

If the threat is seen as high, the likely recommendation is for your client to begin supplying private label products. The candidate should recognize that in competing in the private label segment, the basis of competition is primarily cost. At the same time, the client's branded product should be protected. The following tactics might prove appropriate:

- Seek to wring costs out of all phases of the operation
 - Utilize all existing excess capacity
 - Gain maximum product knowledge as quickly as possible
 - Understand low cost positions on product ingredients and mix
 - Review process improvement/ manufacturing efficiency opportunities
 - Undertake overhead reduction efforts(Any of these points could be discussed in great detail)
- Ensure there is no customer confusion between private label offering and branded product
- Seek partnering agreements with retailers
 - Joint advertising and promotions
- Explore deals with mass merchandisers to enter private labels (remember, mass merchandisers presently sell no private label)

If the threat is seen as low, the likely recommendation is for your client to stay with branded cookies only. The candidate should recognize that in competing in the branded segment the basis of competition is one of differentiation. Additionally, your client should do all it can to halt or reverse the momentum of the private label segment. The following tactics might prove useful:

- Pursue a maximum differentiation strategy
 - Invest in brand image to support premium price
 - Make it difficult to copy product: innovate wisely through product advances, smart product line extensions, frequent changes to the product
 - Manage price gap: explore price increases where appropriate
- (Again, any of these points could be discussed in great detail)
- Explore exclusive partnering with mass merchandisers
- Consider alternative distribution channels
- Seek partnering agreements with grocers regarding branded products
- Educate grocers as available
 - Customers who buy private labels are the most price sensitive. They also tend to be the least loyal customers and spend less per store visit.
 - Grocer's financial stake in private label products extends beyond the product margins. There is lost profit from branded products that could occupy the same shelf space, advertising costs of the private label products, etc.

Key takeaways:

This case has no right or wrong answer. It forces the candidate to take a stand in a “grey” situation and defend it. It also provides a large amount of data upfront which the candidate must quickly sort through and determine what is important and what is not. The key is to understand the story behind the data. How did the private label segment emerge? What is driving it? How has it affected manufacturers, retailers and consumers?

A.T.Kearney - Oil Oomph

This is not an officially recommended case from A.T.Kearney. It is only a sample practice case provided by Vishy Padmanabhan, Goizueta MBA '04. A.T.Kearney uses a wide variety of cases in its interviews.

- Your client is a U.S. based oil refinery
- The refinery has a single location and is a small to medium-sized refinery
- Your client, although profitable, believes it is lagging behind the competition and could improve
- You are brought in as part of a joint consultant-client team that will review overall operations and make recommendations on ways to improve the bottom line
- You have been assigned to work with the maintenance division
- The maintenance department's primary objective is to prevent equipment failure and to repair equipment when it does fail
- Understanding of its organization is important. It consists of three primary areas: nine assets areas, one central maintenance area and one group of contractors. The first two areas are employees of the client, the third an external source of labor.
 - An asset is a physical area of the plant that contains various pieces of equipment (pumps, heat exchangers, etc.). There are nine assets. Each asset has a Maintenance Supervisor who is responsible for all maintenance to be performed in his/her asset. Working for the Maintenance Supervisor in each asset is, on average, eleven "craftsmen". The craftsmen are the actual workers that perform the maintenance. The craftsmen are unionized and divide into twelve different craft designations (e.g. electricians, pipefitters, welders, etc.). Each craft designation has a defined set of skills they are qualified to perform. They are not allowed to perform skills outside of their defined craft, or help in the performance of activities involving skills beyond their craft. Collectively the twelve different crafts can perform any maintenance job that might arise at the refinery. The maintenance supervisor and his/her assigned craftsmen are "hardwired" to their asset. That is, they work only on equipment in their given asset.
 - Central maintenance is a centralized pool of Maintenance Supervisors and Craftsmen, who are dispatched to support the different assets during times of high workload. They are employees of your client and fit the description contained in the above Asset explanation. The only difference is that they may work in any of the different assets as determined by workload. There are a total of 11 Maintenance Supervisors and 100 Craftsmen that comprise Central Maintenance
 - Contractors are a group of outside Supervisors and Craftsmen who support your client during times of high workload. They also are capable of performing any maintenance job that may arise, but differ from your client's Craftsmen in that they divide the collective skills required into five designations rather than twelve. Thus, the craftsmen of the contractor are capable of performing a broader set of skills. They, like your client's craftsmen, don't perform skills outside of their defined craft but do allow different craft designations to help each other. There are an average of 7 contractor Maintenance Supervisors and 140 contractor Craftsmen at the refinery on any given day.

What opportunities exist to increase profits?

What recommendations can you make to capture savings related to the identified opportunities?

What are the cost savings associated with your recommendations?

Suggested solutions:

The first question involves identifying opportunities to improve profits. The candidate must start with either revenues or costs. Although one could make the argument that maintenance supports revenue by maximizing the operating time of the refinery equipment, maintenance should be seen to be a support function. Thus, it is more appropriate to focus on costs and cost reduction. The following questions will help the candidate gain insight into cost reduction opportunities.

- How does the maintenance department track its costs?
 - If the candidate phrases the question about material or overhead costs, the interviewer would inform the candidate that detailed reviewed showed no major opportunities. The candidate would be steered toward labor costs and given the following tables regarding maintenance labor costs for the past year.
 - To support understanding of the following tables, Turnaround work is long term preventive maintenance (e.g. complete rebuilding of a boiler) that may be performed once every few years. All other work (short term emergency repairs, small scale preventive maintenance, other routine work, etc.) fits into the category of Daily work

Craftsmen	Daily work	Turnaround	Total
Client	\$ 8MM	\$ 2MM	\$ 10MM
Contractor	\$ 5MM	\$ 9MM	\$ 14MM
Total	\$ 13MM	\$ 11MM	\$ 24MM

Supervisor	Total
Client	\$ 1MM
Contractor	\$ 0.5MM
Total	\$ 1.5MM

Since the Craftsmen table represents a larger dollar amount than the Supervisor table, it is logical to pursue cost savings opportunities in this area first.

- What is the utilization of Craftsmen in the assets? In central maintenance? And for contractors?
 - Assume each area is utilized 100% of the time, 50 weeks per year, 40 hours per week.
- How does the labor cost of craftsmen (\$24MM) on a refinery-sized basis (i.e., \$cost / per barrel of crude oil processed) compare with industry averages?
 - Consulting your industry data base shows that costs appear to be about 20% above the average of peer refineries.
 - This is an important question to determine if there is a problem with costs (don't assume there is, the client may be performing better than industry average!)

- Is there any particular reason why turnaround work is so heavily skewed toward contractors?
 - Turnaround work tends to be more cyclical. An external workforce is used to absorb some of this additional work. Keep in mind that both client and contractor Craftsmen are capable of performing any maintenance job at the plant.

After further analysis of the tables the key fact that should become appear odd is the large difference in the cost per unit of labor between your client's Craftsmen and the outside contractor's Craftsmen. Often candidates will ask for the hourly wage rates of these two groups. There is sufficient data to calculate these numbers. The calculation is:

Annual cost of client craftsmen
= \$10MM/ (11 Craftsmen/asset x 9 assets + 100 Craftsmen in Central maintenance)
= \$50,000 / year

Annual cost of contractor craftsmen
= \$ 14 MM/ 140 contractor Craftsmen
= \$100,000 / year

Again, this difference should provoke a series of questions to understand the difference.

- Is there any difference in the work performed by the client and contractor craftsmen?
 - No, other than the different levels of Turnaround work vs. Daily work performed as noted in the previous table. Both groups are capable of doing any job with roughly equal levels of quality.
- Is there any difference in efficiency between the two groups of Craftsmen?
 - The candidate would at this point be asked how they would measure this.
 - After reaching an understanding of the difficulty involved in measuring the efficiency of a workforce (especially a unionized workforce), the candidate would be told that through a series of interviews with maintenance supervisors, there is a consensus that contractor Craftsmen are roughly twice as productive as client craftsmen.

This is a critical point in the case. The candidate must recognize that in the present environment the client is largely indifferent about units of labor. You can have a client worker who is half as efficient or a contractor worker who is twice as expensive. The key now is to determine if there are ways to create an opportunity where the client would no longer be indifferent.

- What is causing the inefficiencies associated with the client's labor?
 - Again, the candidate would be encouraged to offer their own ideas.
 - After some discussion the candidate would be told that many of the Maintenance Supervisors complain endlessly about restrictions placed on them by the existing union labor contract and the tightness of craft designations.
 - The interviewer would probe to ensure the candidate understands why the present craft designation create the inefficiencies. Essentially work is too finely divided. It makes planning and supervision extremely cumbersome. As an example, if one of six crafts required to perform a job is absent or late, the entire job must shut down, as craft designations are not allowed to support other craft designations.
- Is it possible to change the existing union contract?

- The present labor contract is a three year contract that is due to be renegotiated/renewed in six months.
- Will the union resist changes to the existing contract?
 - Indeed!!

At this point, the candidate should recognize a major (albeit difficult) opportunity to reduce labor costs. The client would essentially like to have its own employees look and function like its contractors, but continue to get paid at present rates. In reality, management will need to make wage concessions in order to change present work practices. However, through planned negotiations a scenario can be created which presents a favorable opportunity for your client to begin to replace outside contractors with its own Craftsmen.

There are several ways to address the third question of the case, the actual savings that might be achieved. One quick method is to assume that these changes would bring maintenance costs back in line with industry average. Utilizing the cost benchmark mentioned earlier, one could assume costs could be reduced to $\$24\text{MM}/1.20 = \20MM , a \$4MM savings.

A second, and more detailed, method would be to take the extreme scenario where the client's Craftsmen is paid its present rate, but is made as efficient as the contractor's Craftsmen. In this case, you begin with the present level of 200 client craftsmen who are functioning as 100 equivalent contractor Craftsmen (they're one-half as efficient). By improving their efficiency, you are effectively "creating" 100 equivalent contractors. Thus, you are immediately able to replace 100 contractors and save \$10MM. This could be taken one step further by assuming you would want to replace all contractors. This would save an additional \$2.5MM ($\4MM existing contractor expense - $\$2\text{MM}$ required to hire additional client craftsmen + $\$0.5\text{MM}$ in contractor supervisors). As noted earlier, in reality, this approach would require wage concessions to the union, so actual savings may be something significantly less.

Key takeaways:

This case requires the candidate to quickly digest a large amount of organizational issues and then quickly check some ratios to uncover the basic problem (the client workforce is inefficient). Creativity must then be used to structure a recommendation that would create a more favorable situation for the client. As in other cases, acceptable solutions need not follow the exact method above nor cover all of the above points.

Bain - Food services costs

Question 1

The client situation:

A large fast food chain has hired Bain to improve the company's profitability. You're about to have an initial brainstorming session with your team around your client's options, and you want to collect your thoughts first.

How would you begin to tackle your client's profitability problem?

Recommended answer:

Your interviewer wants to know that you have a structure in mind. An appropriate structure for this case would be the profit equation. Be sure to state that to your interviewer.

For example:

"Profit is: total revenue – total cost.

Where Revenue = Price * Quantity and Costs = Fixed Costs + Quantity * (Variable Costs).

In order for the company to improve its profitability, management needs to increase revenues and/or decrease costs.

So to begin tackling my client's profit problem I am going to look at these two sides of the equation:

- Could the client increase prices? How would customers react?
- Could the client sell more meals, either at existing branches or through opening new ones?
- Are there other creative ways to grow revenue (enter into large-scale catering contracts, for example)?
- Could the client decrease our fixed costs by selling some of our branches or real estate?
- Could the client reduce the quantity of products they buy, such as ingredients for their meals?
- How else could they reduce their costs?"

Question 2

At your case team meeting, your manager informs the team the customer is price sensitive, the market is fairly saturated, and that the fixed costs are pretty stable. Thus Bain and the client agree that the team should focus on lowering variable costs. Specifically the client wants to reduce their spending on purchased items (items the client buys from others and then uses or offers to their customers, like the meat in the hamburgers or the ketchup packets).

Without knowing much more about the situation, what would you suggest are some ways to do so? Which ideas seem the most attractive and why?

Recommended answer:

Purchased goods in this business fall primarily into 2 categories: food and packaging. Variable costs are a function of: price and volume. Therefore, the client needs to reduce volumes purchased or negotiate lower prices.

Food:

- We could negotiate lower food prices with our suppliers (consolidate our purchasing, etc.).
- We could look for cheaper ingredients. This sounds risky because it could lower the quality of the food that we sell.
- We could reduce the volume used. For the same reason, this sounds risky because it would change our recipes, one of our competitive advantages in producing winning recipes.

Packaging:

- We could negotiate lower prices with our suppliers or look for cheaper alternatives.
- We could reduce the volume used.

Recommendation:

- Most attractive ideas are: negotiating lower food prices or packaging prices, looking for cheaper packaging materials, or reducing the volume used.

Question 3

At this point in the brainstorming session, the VP adds that two years ago, the company launched a program to centralize purchasing and successfully negotiated much lower prices. Therefore, it is critical to determine if you could reduce the volume of goods that the client purchases. How could you reduce the volume of purchased goods?

Recommended answer:

- Some good creative answers here include (but are in no way limited to):
- Can the client change the shape or size of food containers?
- Can the client packaging for families be consolidated?
- Can the client reduce the weight of the packaging while still protecting the food?
- Can the client reduce other qualities of the packaging including degree of color or logo prevalence without sacrificing their brand?
- Can the client lock bathrooms so that non-customers do not waste toilet paper and towels?
- Can the client charge for extra condiments?
- Can the client reduce the size or number of napkins they purchase?

Question 4

Bain focuses on components that make up large portions of a company's costs: reductions in these areas will have the largest impact on a client's overall costs. Bain's philosophy is to always focus on where the value is. At first glance, napkins would not appear to fall within this category because they are so low cost. But there is a new napkin dispensing technology on the market that you have heard about and think could save the client some money. You decide to investigate.

One way to reduce volume is to reduce how many napkins a customer takes.

Customers in fast food chains often take many more napkins than are needed for the meal, or actively hoard them to take home. One action some chains have taken to combat this is to switch their napkin dispensers from small metal dispensers (from which you pull napkins out in bunches) to larger plastic dispensers (from which you pull napkins one at a time, like a reverse Kleenex box). These dispensers are produced by major paper manufacturers.

Let's assume your chain came to you with the following question:

- How much money could we save per year in the US from using the new type of napkin dispenser in all restaurants?

What information would you like to know from the company? (Do not take into account the cost of the dispensers for now.)

Recommended answer:

Key information that would be necessary includes:

- Number of restaurants
- Number of customer visits per store per year
- Number of napkins used per customer now
- Number of napkins used per customer after the switch
- Price per napkin

Question 5

As you talk through the data points that you would need to gather with your colleagues, you learn from a fellow AC who worked for a local restaurant that a case of 6000 napkins cost his client \$28. Thus, a reasonable price per napkin is about \$0.005.

Conduct your estimates as if your client is similar to McDonald's in terms of the number of outlets.

Your manager calls you for a quick estimation of the market size before getting the actual data from your client. Use creative approaches to hypothesize values for each of the above pieces of information and then calculate the estimated savings.

Recommended answer:

The interviewer is not looking for you to know the values of each of these buckets, however it is important for you to make reasonable estimates and be able to defend your answer. Were your estimates near these, or did you at least take similar approaches?

Number of restaurants

Actual answer: ~12,000 McDonald's in the US.

One estimation approach:

Think of your hometown: How many McDonald's are there for the number of people? Assume there is a McDonald's for every 20-25,000 Americans, with a population of ~275 million people in the US, that would be 11-13,750 McDonald's.

Other approaches:

- Estimate the entire fast food market and then estimate McDonald's share
- Estimate the area covered per McDonald's across the United States.

Note: With this approach, be careful to account for population differences between 10 square miles of NYC and 10 square miles of Utah.

Number of customers per restaurant per day

Actual answer: Fast food restaurants expect around 1,500 customers a day.

One estimation approach:

Assume the 20,000 people per McDonald's visit an average of twice a month, that's 24 times a year per customer or 480,000 visits / 365 days = 1,315 customers per day.

Other approaches:

One might take this a step further during a case interview and attempt to segment these customers. For example, one might assume 50% of the restaurants customers are drive-through and 25% of the remaining take their food "to go." Drive-through customers do not take, but are given napkins. "To go" customers may be more likely to "hoard napkins" as they can not go back to the counter for more.

Note: This would influence potential answers to the next question - but for now, assume you did not take this step and all customers are the same.

Number of napkins used per customer per visit

Actual answer: Five napkins with old dispensers and two napkins with prohibitive dispensers for a savings of three napkins per customer.

One estimation approach:

During a case interview you would most likely just use personal experience here - how many napkins do you take or see others take when you're at a fast food restaurant?

Other approaches:

Bain would send people to the chain to watch napkin taking behavior or call fast food restaurants with both kinds of dispensers to find out how many napkins they go through a day.

Calculations

$\$0.005$ per napkin x 3 napkins x 1500 customers x 365 days per year x 12,000 restaurants
= \$98.6M dollars saved in napkin purchases.

Question 6

Does this estimate sound reasonable?

- How would you go about feeling comfortable with this figure and pressure checking your assumptions?
- What would you want to flag for your manager as factors that might significantly alter the answer?

Recommended answer:

To check the magnitude of the overall number some options include:

- Looking at a comparable company's operating income to see what percentage of the expense napkins account for.
- Find out what your client currently spends per restaurant per year on napkins.

Keep in mind that with a company of this size any small changes in assumptions will significantly alter your answer. Some things to flag for your manager:

- The chain you work for probably gets a significantly better deal on napkin pricing due to the magnitude of their orders (in contrast to the single-location restaurant napkin price estimate you received)
- Up to 50% of customers are drive-through and their napkin behavior should not change. This would reduce the savings by up to 50%
- The three napkin reduction estimate needs refining. Perhaps a pilot program would need to be done to see if the dispensers really have the desired effect

Question 7

Assume you would need 10 dispensers per store for a total of 120,000 dispensers. Also note that napkins in these dispensers cost more at a price of \$.01 per napkin (remember it is the paper companies that make the new dispensers).

At what price per dispenser would the investment not be worth doing?

Recommended answer:

$120,000 \times \text{cost of dispenser} + 2 \text{ napkins} \times \$.01 \text{ per napkin} \times 1,500 \text{ customers} \times 365 \text{ days} \times 12,000 \text{ stores}$

$= 5 \text{ napkins} \times .005 \text{ per napkin} \times 1,500 \text{ customers} \times 365 \text{ days} \times 12,000 \text{ stores}$

$120,000 \times \text{cost of dispenser} = \32.85M

The most you would be willing to pay per dispenser would be \$273.

Note: In an actual case interview you can use round number estimates so that mental math is easier.

Question 8

The actual cost of these dispensers is around \$50.

- Can you see any other factors your client should consider before making a decision?

- What other advantages and disadvantages might there be to this switch? (Impact on costs and customers.)
- How might you evaluate the impact of the extraneous factors?

Recommended answer:

Some potential ideas include:

Advantages:

Fewer napkins used per day leads to less restocking which may mean better customer service or lower labor cost. Better relationship with paper manufacturer (potential for better pricing).

Disadvantages:

With the new dispenser locking you into a paper provider you may lose buyer power. There is the potential for additional napkin price increases in the future.

Customer reaction: Will a customer find this to be poor service? What if he or she needs to grab a handful of napkins after a spill?

Implementation:

Management will need to negotiate a contract that includes limits on future pricing.

Bain will need to do customer research and pilot programs to evaluate customer reaction.

And many, many more! As you can see, the keys to a good case interview are logical assumptions, creative thinking, and basic quantitative ability. Take time to think through problems and share your thought process with your interviewer and you will do great.

Bain - Giant Bank

Our client, Giant Bank is one of the "big 4" banks in Australia. These 4 banks account for about 75% of the retail/commercial banking revenue in Australia and are roughly equal in size. Giant Bank does not have a good understanding of the profitability of its retail customer base, and more specifically individual segments. One segment that has been of particular concern to them is the "youth" customer segment. This group encompasses all customers under the age of 22.

Giant Bank wants Bain to help answer two questions:

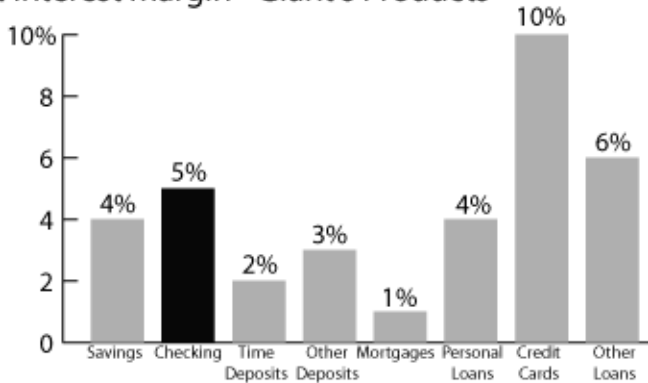
Question 1: What is the average annual profit of a Youth customer?

Question 2: What should Giant Bank's strategy be to maximize long term profits for this customer segment?

To answer these questions, you'll first need to collect data and conduct analysis. Please rate the following facts/issues based on their importance in helping you answer the two questions.

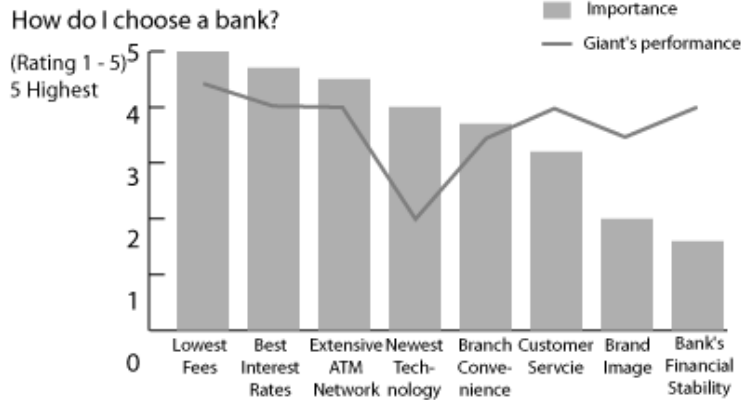
	Importance		
	Very	Somewhat	Not
Size and growth- Australian retail banking industry			
Net interest margin across Giant's products			
Customer purchase criteria (youth segment)			
Products purchased and avg. balances (youth segment)			
Fee structure for Giant's products			
Monthly Transaction log history (all segments)			
Branch infrastructure and location			
Number of customers across each segment for Giant			
Number of products for an avg. customer (all segments)			
Defection rates (across customer segments)			
Defection rate by age (youth segment)			
Cost structure for Giant Bank			

Net Interest Margin - Giant's Products



Net Interest Margin defined as (interest rate charged - transfer price) for loans and (transfer price - interest rate paid) for deposits. Net interest revenue is calculated from NIX x average balances

Customer Purchase Criteria - Youth



Products Purchased/Average Balances - Youth

	Percent with Product	Average Balances of Those with Product
• Savings	100%	\$500
• Checking	80%	\$100
• Time Deposit	20%	\$1,000
• Mortgages	4%	\$50,000
• Personal Loans	10%	\$5,000

Fee Structure

- Because of Giant Bank's history of being Australia's "community bank", Giant Bank's only fee comes from ATM charges for use of other bank's ATMs
- Currently \$1 per transaction

Average Monthly Transaction Log Per Customer

	Branch	ATM	Phone
• Youth	2	7 (2)	2
• Community	5	3 (1)	1
• Mid-Tier	4	8 (2)	2
• Affluent	4	7 (2)	2

(#) = transactions using non Giant ATMs

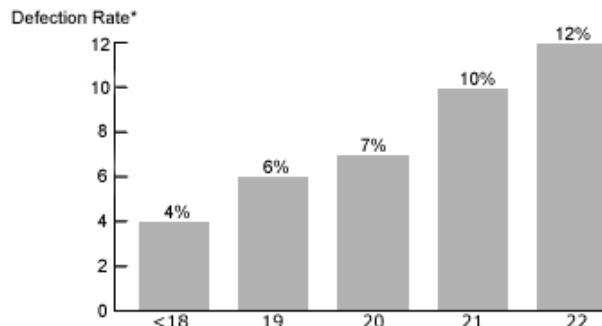
Number of Customers Each Segment - Giant



Number of Products for an Average Customer

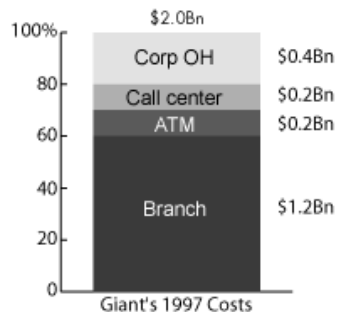
	Savings	Checking	Time Deposits	Mortgages	Personal loans	Credit cards	Total
• Youth	1.0	0.9	0.2	0.1	0.1	0.0	2.3
• Community	0.9	0.3	0.0	0.0	0.0	0.0	1.2
• Mid-Tier	1.0	1.0	0.7	0.6	0.2	0.5	4.0
• Affluent	1.0	1.0	0.9	0.8	0.1	0.7	4.5

Defection Rate by Age (Youth)



*Defined by annual % of customers in a segment who have withdrawn all deposits and closed all loans, or whose deposit is less than \$100 and no transactions have been recorded for 6 months

Giant Bank's Cost Structure



Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

	Importance		
	Very	Somewhat	Not
Size and growth- Australian retail banking industry			χ
Net interest margin across Giant's products	χ		
Customer purchase criteria (youth segment)		χ	
Products purchased and avg. balances (youth segment)	χ		
Fee structure for Giant's products	χ		
Monthly Transaction log history (all segments)	χ		
Branch infrastructure and location			χ
Number of customers across each segment for Giant	χ		
Number of products for an avg. customer (all segments)		χ	
Defection rates (across customer segments)			χ
Defection rate by age (youth segment)		χ	
Cost structure for Giant Bank	χ		

Answer: Profit per Customer

Step 1:

Calculate Revenue Per Customer by Interest Revenue and Fee Revenue

<u>Interest Revenue</u>	<u>% with Product</u>	<u>Avg Balance</u>	<u>Net Interest Margin</u>	<u>Annual Revenue</u>
• Savings	100%	\$500	4%	\$20
• Checking	80%	\$100	5%	\$4
• Time Deposits	20%	\$1,000	2%	\$4
• Mortgages	4%	\$50,000	1%	\$20
• Personal Loans	10%	\$5,000	4%	\$20
				<u>\$68</u>
<u>Fee Revenue</u>				
• 2 non-Giant ATM transactions per month x 12 months x \$1/transaction				<u>\$24</u>
			Total revenue per customer	\$92

Answer: Profit per Customer

Step 2:

Calculate Cost Per Customer by Allocating Total Cost by Cost Driver

<u>Costs</u>	<u>Driver</u>	<u>% Allocated*</u>	<u>Total Cost</u>	<u>Costs for Segment</u>
• Branch	Branch Transactions	23%	\$1.2Bn	\$276M
• ATM	ATM Transactions	47%	\$0.2Bn	\$94M
• Call Center	CC Transactions	47%	\$0.2Bn	\$94M
• Corp OH (Includes people, IT, etc.)	Customers (or accounts)	40%	\$0.4Bn	<u>\$160M</u> \$624M

* e.g. For branch costs, $\frac{(4m \times 2/mth)}{(4M \times 2) + (3M \times 5) + (2M \times 4) + (1M \times 4)}$

<u>Cost/Customer</u>	
• 4M youth customers	\$156
<u>Profit/Customer</u>	
\$92 - \$156	(- \$64)

Thus the loss per customer is \$64

Question 2: What should Giant Bank's strategy be to maximize long term profits for this customer segment?

To respond to Question 2, please rate the following actions/initiatives for their potential to improve the profitability of this segment.

	Rating		
	Good	Potential	Bad
Raise/Introduce Fees			
Redirect customers to cheaper channels			
Shut down unprofitable branches			
Attract more youth customers through marketing			
Establish partnerships with elementary/middle schools			
Aggressively cross sell other products into customer base			
Remove ATM charges to attract more customers			
Ask the customer to leave			
Acquire another bank to increase economies of scale			

Good Idea

- Raise/Introduce fees
 - Raising/introducing fees accomplishes two objectives a) increase revenue from this customer segment and b) if done correctly, can influence behavior positively e.g. reduce branch visits by charging for transactions.
 - Giant Bank needs to be careful about how to do this however, to ensure that it doesn't lose too many customers. While these customers are negative profit, they are likely positive contribution given the bulk of the costs are fixed. Thus, Giant Bank should raise/introduce fees that either are in line with the market, or is likely something the other 3 banks will follow.
- Redirect customers to cheaper channels
 - Channel costs vary significantly. Branch costs (the most expensive) can be 10x-100x more expensive than cheaper channels (e.g. internet transactions can be < \$0.01 fully costed).
 - Many customers will migrate to cheaper channels if the appropriate mix of positive and negative reinforcement are applied. Positive reinforcement includes education and making the channel easy to use (e.g. secure and easy login for internet access). Negative reinforcement usually comes in the form of fees.

Has Potential

- Shut down unprofitable branches
 - At the end of the day, this is where the bulk of cost reduction is going to come from. However, it is unlikely that Giant Bank has branches which are predominately "Youth" customers. Thus, analysis across all segments need to be conducted before an identification of specific branches to shut down can be made.

- This analysis will likely be an overall “footprint” analysis of branches quantifying profitability, contribution, and customer segments served.
- Aggressively cross sell other products
 - It is clear from the data that the number of products that this customer segment owns is significantly less than other segments (except for Community). One high potential is credit cards.
 - However, it is highly likely that this customer segment doesn’t need any of the other products that Giant Bank has to offer. Thus aggressively cross selling may be futile. Further analysis will be required before this action can be recommended. While cross selling has been a hot topic for financial institutions, the results to date have been disappointing.
- Attract more youth customers through marketing
 - Giant Bank should not want any more of these customers, and certainly shouldn’t spend marketing dollars to acquire more of these customers. However, there is an exception to selectively target older, educated customers in this segment (e.g. 21/22 year old college graduates) who will likely be profitable future customers for the bank.
 - Timing is critical here however...too soon and Giant bank stands to lose money for many years before being able to recoup its investment, and there is no guarantee that the customer will not defect once he becomes profitable.

Bad Idea

- Establish partnerships with elementary/middle schools
 - While this may be a laudable activity (I.e. teach children the fundamentals about banking and saving), it is sure to be a money losing proposition. It certainly doesn’t help improve the profitability of the segment. In fact, this will likely drag the profitability of the segment down as the average age of the group falls and financial services needs dwindle.
- Remove ATM charges to attract more customers
 - This will likely attract even more money losing customers to Giant bank as well as remove revenues necessary to pay other banks for network usage. This recommendation would be a huge mistake.
- Ask customer to leave
 - Besides the negative impression this is likely to make on your customers, this action is difficult to implement. It is far easier to increase fees/pricing to influence a bad customer to leave, rather than trying to do this through direct communications.
- Acquire another bank to increase economies of scale
 - Given the situation in Australia, acquisition of any of the other 3 banks will be difficult due to anti-trust considerations. However, there may be opportunities with some of the smaller regional banks.
 - Realistically though, there may not be a lot of synergies due to the integration challenges likely to be faced, and the fact that the remaining players are so small.
 - Also, while this recommendation has potential to improve the overall profitability of the bank, it doesn’t address the question of improving the profitability of this particular segment.

Bain - Gulf Partners and Acme Packaging

Gulf Partners, a private equity fund specializing in leveraged buyouts, has asked Bain to evaluate an investment in Singapore-based Acme Packaging. (A private equity firm is a company that has raised money from individuals and institutions to invest in companies that may be a riskier investment but offer the promise of higher returns.)

Acme Packaging manufactures and sells intermediate bulk containers (IBCs), which are metal frame crates stacked within shipping containers for the transport of goods. Acme Packaging has manufacturing operations in Singapore and sales offices throughout Asia. 100% of sales are from Asian markets with 80% of sales from rubber customers - mostly tire manufacturers from Japan and Southeast Asia. Acme Packaging has 65% market share within the rubber IBC market and has increased share in the Asia IBC market by 5% over the past 3 years.

Gulf Partners prefers to sell their investments within 5 years with a minimum 40% return on their investment. In order to evaluate whether Acme Packaging can generate high returns, Gulf Partners would like Bain to assess the growth potential for Acme Packaging. They specifically want to know:

- 1: Can Acme Packaging double its operating income by year 5 (2006)?
- 2: What growth opportunities should Gulf Partners pursue to increase the value of Acme?

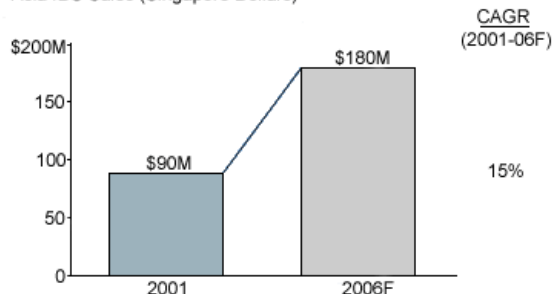
Think about what information you need to answer these questions. Select 5 facts/issues that you would like to investigate from the list below.

- Size and growth of IBC sales in Asia
- Projected size of Asian tire market
- Profitability of new sales offices over time
- Acme Packaging's customer acquisition costs versus competitors
- Market share of worldwide IBC market by geography
- Customer purchasing criteria
- Market share and growth of IBC sales in Asia by customer industry
- Current and historical income statement for Acme Packaging
- Gulf Partner's current portfolio
- Potential buyers of Acme Packaging in 5 years
- Worldwide IBC pricing trends

Bain Recommended

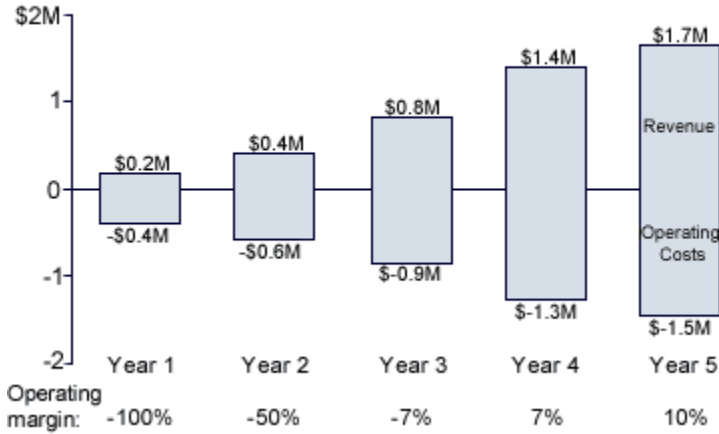
Size and Growth of IBC Sales in Asia

Asia IBC Sales (Singapore Dollars)



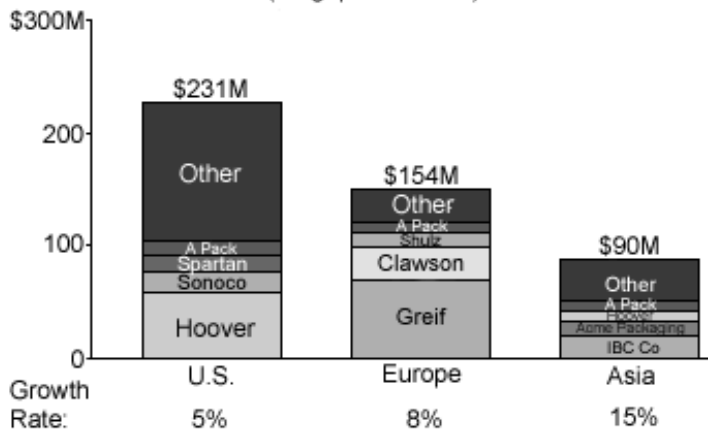
Profitability of new sales office

Average Financials of New Sales Office (Singapore Dollars)



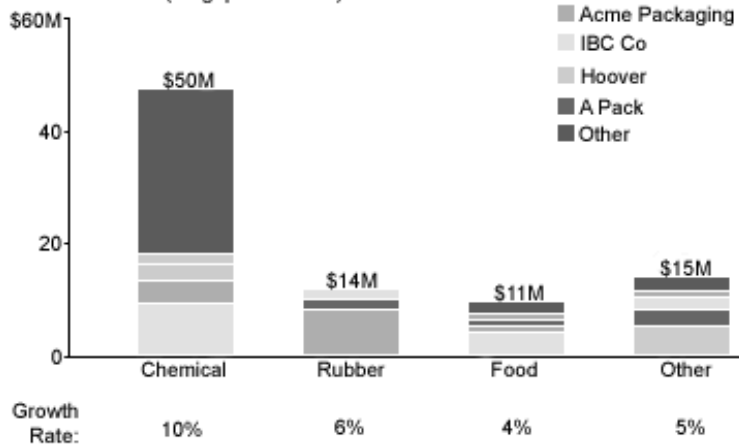
Worldwide IBC Market by Geography

Worldwide IBC Market (Singapore Dollars) 2001



IBC Market in Asia by Industry

Asia IBC Market (Singapore Dollars)



Acme Packaging Income Statement

	1999	2000	2001
Revenue	10.0	12.0	15.0
COGS:	5.0	6.0	7.5
Gross Margin:	5.0	6.0	7.5
Operating Costs:	4.1	4.8	5.7
Operating Income:	0.9	1.2	1.8
Net Income:	0.8	0.8	1.5
Gross Margin %:	50%	50%	50%
Operating Income %:	9%	10%	12%

1. Can Acme Packaging double its operating income by year 5 (2006)?
2. What growth opportunities should Gulf Partners pursue to increase the value of Acme Packaging?

Listed below are three initiatives Gulf Partners is considering. Please rank them on the attractiveness of the opportunity.

(1 = most attractive; 3 = least attractive)

- Aggressively increase market share within the rubber IBC market in Asia
- Enter new geographical markets by opening sales offices outside Asia
- Expand presence in Asia by increasing sales in non-rubber customer industries

Bain Recommended Answer

Step 1: Determine market size in year 5 (2006)	\$180M
100% of Acme's sales come from Asia. As a result, the relevant market to size is the IBC market in Asia.	x
Step 2: Estimate Acme's market share in 2006	17%
Acme Packaging has market share of 17% (based on \$15M in 2001 sales.) Based on historic share gain, it is likely they will maintain or increase their current share.	====
Step 3: Calculate Revenue	\$30M
Step 4: Calculate Operating Income	x
Acme's financial statements indicate that operating margin has improved over time so Acme will probably maintain or increase its current 12% margin.	12%
	====
	\$3.6M+

Yes--Acme Packaging can double its operating income by year 5

*Current operating income=\$1.6M

Bain's Ranking and Rationale for Gulf Partners' growth opportunities are below.

- 1) Expand presence in Asia by increasing sales in non-rubber customer industries
 - The chemical IBC industry in Asia is larger than the rubber IBC industry and is increasing at a faster rate. The market is fairly fragmented, and a fragmented market is easier to penetrate than a market dominated by strong competitors. Acme's presence in the chemical industry, as well as other companies selling across industries, indicates that selling across industries is possible.

- 2) Aggressively increase market share within the rubber IBC market in Asia
 - Acme currently has a 65% share in the rubber IBC market. Although Acme could leverage its current position to gain additional market share, the opportunity is not large. The remaining market share is divided between only two companies, and the remaining customers may not be as profitable.
- 3) Enter new geographical markets by opening sales offices outside Asia
 - Europe represents a growing but heavily consolidated market. 80% of Europe's IBC sales go to five companies. Acme Packaging would have difficulty penetrating a market dominated by strong competitors.
 - Although the United States is a more fragmented market, the growth rate is 3x less than the growth in Asia. Furthermore, entering the U.S. versus growing share in Asia would be less profitable for Acme Packaging based on the financials of new sales offices.
 - A new office does not yield profit until year 4, and since Gulf Partners wants to sell the business within five years, they are probably more interested in short-term growth opportunities.

BCG - Trevor's Toys

You have been assigned to work on a product-offering strategy case for Trevor's Toys, Inc. Your team has been asked to deliver a recommendation quickly: you have only 12 weeks (or 60 working days) to complete the project. You must use your time wisely if you're to deliver maximum value for Trevor's Toys.

Trevor's Toys is a regional toy retailer focused on the high-tech toy market in the United States. It generated \$600 million in revenue last year from 30 stores located primarily in urban areas throughout the Northeast and the Midwest. Management has considered expanding its product offering to include low-tech toys a number of times, but has never been convinced that it was making a fully informed decision. Revenue growth for the company has historically been strong, although it has slowed in the last few years.

Trevor's Toys' competitors include traditional toy stores and online Web sites that sell both high-tech and low-tech toys, some of which are quite large and utilize both sales channels. Management is concerned that the continued growth of the large traditional stores and online toys sites will erode its customer base over time unless Trevor's offers a full selection of toys.

Your task is to analyze the decision facing management at Trevor's Toys. Your first step is to frame your analysis, decide which aspects of it are most important, and then ask questions about the most relevant topics. Afterward, you'll develop a recommendation and a rationale to support it.

Doing the analysis begins with framing the issues. This allows you to establish the scope. By doing so, you'll ensure that the questions you select have real impact, and that your attention is applied where it matters most.

The list below identifies many common issues. You must select four to investigate. As in most consulting engagements, your time and the client's money are limited, which means you won't be able to investigate every potential issue. Choose the four that you believe are most important to this assignment.

Potential acquisitions
Industry threats
Market opportunity
Customers
Competitors
Projected Profitability
Pricing
International expansion
Promotion
Store growth
Potential entrants
Cost structure
Toy suppliers

Process re-engineering
Implementation
Organizational effectiveness

Assignments can be framed in any number of ways. The key is to use a logical structure that enables you to analyze and respond to the issues facing the client. Although the four issues below may not be the ones you selected, we recommend that to achieve the greatest impact for the Trevor's Toys management team, you thoroughly investigate them during the time you have remaining.

Customers

What are the needs of the client's customers, and how would a broader selection of toys address those needs? Will a move to expand the product offering add value to the customers' experience?

Competitors

How will the current competitors in the traditional toy space react to the decision by Trevor's Toys to offer low-tech toys?

Market opportunity

Is the market large enough to support a profitable Trevor's Toys venture into low-tech toys?
Would Trevor's capture enough share for this to be successful?

Implementation

Does Trevor's Toys have the resources and capabilities to increase its product offering? What would be required to make that happen?

As with almost all project work, you won't have the time to do as much analysis as you would like. The clock will continue to run as you ask each question. Keep this in mind as you select the data you would like to have.

With each question, you will be scored according to both the significance of the question and time. The more significant the questions you select, the higher your score in the topic area will be. But each question takes time to answer because of the need to find and interpret the data. Consequently, each answer deducts a predetermined number of days from the project calendar.

You can make a recommendation whenever you feel you have learned enough to make a persuasive argument to support your conclusions. Each answer you receive is recorded in the notebook, which opens in a separate browser window. You can refer to it at any time.

Questions: Consumer Research

- What kind of customer overlap is there between Trevor's and the larger low-tech stores? 2 days
- What do customers like about shopping at Trevor's? 3 days
- Why do customers shop at larger toy stores? What do they like/dislike? 2 days
- How much money do customers spend in traditional stores (Trevor's Toys, competitors)? 2 days

- What are the attributes of Trevor's Toys' customers? 3 days
- What are customers looking for in an ideal toy store? 4 days
- Would customers do all of their toy shopping at Trevor's if the company were to offer both low- and high-tech toys? 3 days
- How loyal are Trevor's customers? Are many sales repeat sales to the same customers? 3 days
- How much time is required for an average toy shopping trip in a traditional store (ours, competitors')? 2 days
- Who are Trevor's Toys' primary customers shopping for? 1 day
- Do customers shop online for toys? Why? For what kinds of toys? 1 day
- How do they decide if they are going to purchase online? 2 days

Questions: Competitors

- Who are Trevor's Toys' traditional competitors? 2 days
- Who are the market share leaders in the total toy market? 1 day
- What are the different product offerings among online competitors? 2 days
- What are the competitors' growth rates? 1 day
- What do competitors offer that we can't? 3 days
- Are the competitors making any profit? 1 day
- What are the competitors' pricing policies? 2 days
- How are the competitors promoting and marketing products? 2 days
- What is the selection of low-tech toys available at the competition? 2 days
- What is the selection of high-tech toys available at the competition? 2 days
- Other policies affecting customers (returns, customer service, etc.)? 2 days
- What sites for online toys attract the most traffic? 1 day
- Who are the market share leaders in the online market? 1 day

Questions: Economics

- What is Trevor's Toys' historical financial performance? 1 day
- On average, what are the margins on low and high-tech toys? 2 days
- How much additional retail space would be needed? Is it available? How much would it cost? 3 days
- Would additional staff be needed? 2 days
- Would the company need additional warehouse space? If so, how much would this space cost? 3 days
- How does distribution currently take place? 1 day
- What will be the average high-tech toy purchase amount per visit in 2007? 1 day
- What is the additional revenue per customer projected if Trevor's expands its product offering? 2 days
- What additional costs are incurred by processing orders for online retailers? 2 days

Questions: Market Sizing

- What is the overall size of the toy market? 2 days
- What is the size of the high tech toy market? 2 days

- How fast has the toy market grown over the past five years? 1 day
- How fast has the high tech toy market grown over the past five years? 1 day
- Why is the toy market growing so fast? 2 days
- What is the average amount spent per child? 2 days
- What is the size of the online toy market today? 1 day
- What is the anticipated growth for the online toy market? 2 days
- How much of online spending is expected to be for high tech toys? 2 days

Questions: Implementation

- Can the current facilities be used for the sale of low-tech toys? 2 days
- How does management at Trevor's Toys view the low-tech business as a competitive threat? 3 days
- Are the suppliers of low- and high-tech toys different? 2 days
- Where would Trevor's Toys source the low-tech toys? 2 days
- What inventory system does Trevor's currently use? 1 day
- What is the organizational structure at Trevor's Toys? 3 days
- Would the current internal culture fit the venture into low-tech toys? 3 days
- How will Trevor's Toys advertise the change? 2 days
- Are there any international trade issues? 1 day

Would customers do all of their toy shopping at Trevor's if the company were to offer both low- and high-tech toys?

Although many customers would purchase both types of toys at Trevor's if they were available, it is unlikely that customers would stop going to traditional toy stores. Given their wider selection of toys, larger size, and lower prices, those stores will continue to be a major draw for many of Trevor's customers.

What do customers like about shopping at Trevor's?

Most customers surveyed cited the knowledgeable and friendly sales staff, good selection of high-tech toys, ease of store navigation and relatively short lines, and lack of any "feeding frenzy" atmosphere as their primary reasons for shopping at Trevor's. Also, Trevor's recently put in a rating system for its toys and games to help parents better understand the violence level of the toys they are buying. Interestingly, many customers said they had a relatively clear idea of what they hoped to buy when they came to the store.

Why do customers shop at larger toy stores? What do they like/dislike?

The most common response to why customers shop at the large stores was that these stores had the widest selection of high- and low-tech toys. In addition, many people said they often went to the larger stores with less idea about what they were going to purchase and would go with their kids and spend more time browsing the aisles to make their selection. However, a number of respondents mentioned that they disliked these stores because of the large crowds and long lines that are almost always present.

How loyal are Trevor's customers? Are many sales repeat sales to the same customers?

Most of Trevor's customers are fairly loyal to the company and visit the store, on average, three times a year.

Do customers shop online for toys? Why? For what kinds of toys?

Yes, a number of customers shop online. For the most part, people purchase online for the convenience of not having to visit the store. The amounts of high-tech and low-tech toys sold online are roughly equal and are expected to remain so for the next few years. An exit survey at a number of Trevor's stores revealed that only 20 percent of Trevor's current customers shop online.

Who are Trevor's Toys' traditional competitors?

The biggest traditional store competitors are Toys R Us and the large discount stores, like Wal-Mart, J.C. Penney, and Target. They each have hundreds of stores nationwide. Each of these stores sells a small selection of very competitively priced SKUs, which Trevor's Toys also carries. Trevor's Toys differs by offering a wider product range and narrower geographic coverage. Trevor's Toys is located only in the U.S. Northeast and Midwest. No one else offers the same variety and depth of product.

What do competitors offer that we can't?

The large competitors offer a great variety of toys in all product categories. The competitors also have national coverage. Currently, Trevor's Toys does not serve customers outside its store regions.

What are the competitors' growth rates?

The large stores (Toys R Us and Wal-Mart) have been seeing 3 percent and 7 percent growth in this category over the past few years. The pure-play online toy retailers have been growing at very high rates of between 75 percent and 150 percent per year since they began operation in 1996. BrainSmart and SmartKids are both private companies (revenue numbers aren't publicly available), but growth estimates for both are in the range of 50 percent to 100 percent since startup, though from a much smaller starting base.

What are the competitors' pricing policies?

Toys R Us and Wal-Mart have been in a prolonged battle for low prices, particularly for low-tech toys. Historically, both have been known to make certain popular toys loss leaders to drive traffic into the store and encourage people to buy higher-margin products. The online sites such as Amazon.com and eToys price their product in a similar way.

Who are the market share leaders in the total toy market?

Toys R Us, the historical market share leader, has 25% of the total toy market, but has recently been surpassed by Wal-Mart, which has 30%. None of the other retailers have more than 8%. Trevor's Toys currently has 3% of the market overall and 10% of the high tech toy market.

What is the additional revenue per customer projected if Trevor's expands its product offering?

This can be broken down into two components: 1) The 1.6 million existing Trevor's customers are projected to spend approximately \$135 per visit (up from \$125 now). These customers generally visit the store three times per year, on average, and will continue to do so. 2) In

addition, Trevor's hopes to attract about 500,000 new customers who will visit the twice a year and spend \$40 per visit.

How much additional retail space would be needed? Is it available? How much would it cost? Each store is approximately 3,000 square feet and would need to be tripled to accommodate the increased inventory. The current store base is mainly in traditional and strip malls, where space is relatively limited, and rent averages approximately \$50 per square foot.

Would additional staff be needed?

Yes. Though the warehouses might need to add a few people, the majority of additional staff would be needed in retail operations. Trevor's estimates that each of its 30 stores would probably require five new staff. The standard cost for a retail employee, including training and health care, is \$40,000 per year.

Would the company need additional warehouse space? If so, how much would this space cost? The company currently leases four warehouses (two each in the Northeast and the Midwest). Each warehouse is approximately 75,000 square feet, and management estimates that it would need to triple the size of each one to make room for the low-tech toys. The current warehouses are in relatively cheap locations; additional space is available at \$2 per square foot.

On average, what are the margins on low and high-tech toys?

On average, low-tech toys have a gross margin per item of about 15 percent and high-tech toys about 20 percent. Both of these numbers vary widely from item to item, however, given the pricing policies of most retailers.

What is the overall size of the toy market?

Approximately \$30 billion is spent annually in all toy categories in the U.S.

What is the size of the high tech toy market?

Approximately \$10 billion is spent annually on high tech toys (including video games) in the U.S.

How fast has the toy market grown over the past five years?

The overall toy category has been growing at 6 percent annually over the last five years.

How fast has the high tech toy market grown over the past five years?

The high tech toy market has been growing at 20% annually over the past five years. Projections are that the number of high tech toys bought online will grow faster than the number of traditional toys.

Why is the toy market growing so fast?

The likely reason is that the amount of disposable income for parents and teenagers has been increasing consistently in recent years. There is no conclusive proof of this rationale.

Where would Trevor's Toys source the low-tech toys?

The new venture into low-tech toys would require Trevor's to form relationships with a large number of toy manufacturers from which it does not now receive inventory. There are a number

of large low-tech toy companies such as Mattel and Hasbro that Trevor's does not deal with now, but would need to purchase from, if it moved into the low-tech toy market.

Are the suppliers of low- and high-tech toys different?

Yes, many of the high-tech toy companies are large firms that produce video games as well as a host of other products. This is in contrast to the low-tech toy companies, which are typically focused mainly on the toy market.

Can the current facilities be used for the sale of low-tech toys?

Yes, but only with additional space. The current inventory system could be expanded with little effort or expenditure to include the new toys to be stocked, but the warehouse and retail spaces would need significant additions.

How does management at Trevor's Toys view the low-tech business as a competitive threat?

Most of the senior managers view the low-tech business as something that could be an additional revenue stream in the future. They realize that most of their key competitors currently sell both low- and high-tech toys, but don't see the low-tech market as a threat to the high-tech market. They believe that this is reflected in the different growth rates of the sectors.

Would the current internal culture fit the venture into low-tech toys?

Most of the front-line personnel are young, tech-savvy individuals. And although there is no doubt that Trevor's will need to hire a number of front-line people to deal with the increased number of products, there is some concern that this will dilute the overall quality of the sales force.

Days Spent = 50

Should Trevor's Toys go ahead with plans to offer low-tech toys?

No, avoid expanding into low-tech toys.

Recommending that Trevor's Toys avoid expanding into low-tech toys is correct.

A recommendation that Trevor's Toys avoid an entry into the low-tech toy market is likely to meet with strong agreement and support from Trevor's Toys' senior management. An expansion of the current offering to include low-tech toys is unlikely to generate enough revenue to offset the additional costs associated with the change. In addition, Trevor's may lose some customers who no longer feel that Trevor's offers the same benefits as before, such as knowledgeable and friendly customer service and a less hectic shopping experience than in the large stores.

Your overall direction against an increased toy offering seems sound, but it is important to assure senior management that the decision is defensible and the rationale is robust. There are five areas that senior management and the directors would like to understand before they present the findings to the board. Now you must develop recommendations for each of those areas based on the information and data you gathered. Good luck.

- What value would be created or destroyed for customers with a full toy offering at Trevor's?

- How would competitors respond?
- How attractive is the low-tech toy market?
- Would Trevor's Toys make money?
- What are the implementation issues?

Now that you've performed your analysis, you need to integrate your information into a cohesive whole. Often overlooked, this is a key aspect of every assignment. It's important to highlight the main findings and show how they relate to each other. The way to begin is to decide whether Trevor's Toys should offer low-tech toys. To make this recommendation, you should revisit the questions you asked and the analysis you performed to help you support your conclusions.

What value will the customers get from an online offering?

Trevor's Toys is unlikely to meet customers' needs by expanding its offering. First and foremost, doing so might detract from the traditional shopping experience at Trevor's. Trevor's Toys is widely recognized for its knowledgeable and friendly sales staff. If it increases the product offering, the company will have to hire more retail staff and may have problems finding the same quality of people. In addition, the increased customer traffic is likely to result in heavier crowds, longer lines, and more stockouts. Management should be very wary of alienating its core customers given their loyalty to the stores, illustrated by their frequent visits (three times a year).

From the questions you asked, it appears that you have a good grasp of the Trevor's Toys customer and how an expansion to low-tech toys might or might not appeal to them. You have answered enough of the questions to sit with the senior management team and convince them that they have enough information to make a decision on whether or not to offer the low-tech toys. You delved into the important customer needs and desires to better understand how a low-tech toys offering would address those needs.

How are the competitors positioned?

By expanding its offering, Trevor's would be going head-to-head with the two largest players, Toys R Us and Wal-Mart. One or both of them might engage in a pricing war if they felt threatened by the change. In addition, Trevor's would be competing with the online retailers that sell both low- and high-tech toys. Although online product selection is a key to success, customer service remains a significant differentiator, so there is less risk for the company in that area. The customer service levels at the big competitors range from low to medium and Trevor's would have to be extremely careful not to let this area drop.

The two additional areas where Trevor's Toys is able to distinguish itself from the competitors are in offering a toy rating system and employing a knowledgeable sales staff. These factors are less relevant for low-tech toys and would not provide an edge over the competition.

You have a reasonable understanding of the competition in the low-tech toy retailing industry. There are a number of key competitive points you discovered that will help Trevor's Toys decide whether or not to expand into low-tech toys. When asked by Trevor's Toys, you will be able to put together a compelling story of the competitive landscape and justify the move to go online.

How attractive is the market?

The low-tech toy market is somewhat attractive from a revenue standpoint, but it is lower margin and growing significantly slower than the high-tech side of the market. And although the market size for low-tech toys is very large at \$20 billion, Trevor's forecasts estimate that the company would pick up less than 1 percent of this segment, a substantial risk given the potential alienation of some of its core customers.

Market size is one of the most important questions senior management must answer when considering any venture into low-tech toys. From the questions you asked, you appear to have an excellent understanding of the size of the overall toy market and how the high and low-tech markets are different. Before senior management is willing to put time and resources against such a significant venture, it wants to be sure that the market potential is substantial. During the final presentation to the board of directors, you will be able to solidly back up the estimations of the total retail toy market and convince everyone that it may not be the best strategy for Trevor's to follow.

How will Trevor's Toys make money?

In short, it is difficult to see how Trevor's Toys would make money if it began offering low-tech toys. To come to this conclusion we need to look at the basic revenue and cost streams associated with the proposed endeavor

Firstly, looking at the projected revenue stream we can see that Trevor's would expect to receive an incremental \$88 million from selling low-tech toys. This has two components:

- 1) \$48 million from existing customers: (three visits per year) * (\$10 more per visit) * (1.6 million customers)
- 2) \$40 million from new customers: (\$40 per visit) * (two visits per year) * (500,000 customers)

However, this does not take into account any loss of existing customers that might occur if service levels change.

Second, the costs associated with the increased product line should be examined. The three largest components of this are cost of goods sold, additional rent for new space, and the costs of hiring additional staff.

(A) Cost of goods sold (cost of purchasing the toys from the manufacturers) is about 85 percent of revenue and amounts to about \$75 million: $(\$88 \text{ million revenue}) \times (15 \text{ percent margin}) = \75 million

(B) Trevor's will have an additional \$10 million of rent per year, which, roughly speaking, can be broken down into the following:

- 1) \$1.2 million for warehouse space: (four warehouses) * (150,000 sq.ft. needed per warehouse) * (\$2 per sq.ft.)

2) \$9 million for retail space: (30 stores) * (6,000 sq.ft. needed per store) * (\$50 per sft)

(C) Finally, the additional cost of retail personnel is approximately \$6 million per year, based on the following: (30 stores) * (5 new staff per store) * (\$40,000 cost per person)

The sum of these costs is \$91 million, more than \$3 million more than the aggressive revenue forecast. Therefore, it is clear that the venture into low-tech toys is unlikely to be profitable for Trevor's in the near term.

The question looming on every executive's mind during a new business venture is, "Can we make money?" To answer this question, it is important to investigate and develop a set of assumptions about the potential of the business. From the questions you asked, the revenue potential and predicted costs are clear. When determining the viability of ecommerce ventures, it is imperative that you gather as much data as possible to solidify your estimates of future growth and profit potential. The board of directors should feel assured that your decision is the right one based on the data you collected and your estimations. However, you may have gathered too much data in this area and risked missing information on other important topics. Take care to use your time wisely, balancing the need to gather enough data to support solid conclusions against the danger of spending time reconfirming established facts.

What are the implementation issues?

The key to implementation lies in Trevor's ability to source new toys. This could present a problem, as the company does not currently have strong relationships with many of the major low-tech toy makers and will probably have to exert significant effort to build them. In addition, because Trevor's is so small (30 stores) in comparison with the large toy retailers, it probably will not be able to source the products at the same low prices as the bigger companies.

Many companies fall short on implementation when investigating a new business venture. To ensure success, it is very important to investigate all of the implementation issues and potential barriers. It appears that you asked enough questions to adequately understand whether there were any serious challenges to expanding Trevor's product offering. You uncovered the key points that may be bottlenecks or hurdles during implementation stages. Trevor's Toys executives will be quick to drill into the implementation issues, and you will be able to show them that the company can execute the changes required to go into low-tech toys.

The management team from Trevor's Toys will now review your work and decide what to do. The team is grateful for your help in understanding the issues and challenges it faces in pursuing a low-tech toy strategy, as well as for the solutions you've proposed.

BCG - GenCo

Interviewer

Your client is GenCo, a large, international, diversified company with a health care division that produces a wide variety of medical instruments and related services. Five years ago, it expanded into the health care software industry by purchasing MedCount, which markets administrative systems to large U.S. hospitals. These systems are designed primarily for back-office functions; they are not designed for managing patients or providing other physician and technical support. Since it was purchased, the software division has failed to deliver the growth needed to justify the multiple GenCo paid for it. GenCo feels it has already squeezed margins as much as possible, and now is looking for new sales opportunities. MedCount turned to BCG to help identify potential ways to increase revenues. How would you approach this problem?

Candidate

First, let me make sure I understand the problem. The parent company produces medical devices and services, but before the acquisition was not involved in health care software. The company it purchased, MedCount, sells only administrative systems software to large hospitals. It is now looking for opportunities to increase revenues.

Interviewer

That is correct.

Candidate

Could I take a moment to jot down a few thoughts?

Interviewer

Sure, that would be fine.

Candidate

I would suggest using the following framework: First, I'd want to understand the market size and growth rates for MedCount's market and related software markets. Next, I would like to explore the competition and their market shares. Third, I would like to examine customer requirements and then, given those external conditions, look at the division's capabilities to understand how well prepared it is to meet the needs of the marketplace.

Interviewer

That sounds fine. So what do you want to know about the market?

Candidate

Well, the first hurdle would be to identify the markets the company would be interested in. Besides administration systems, what other types of medical software systems do large hospitals purchase?

Interviewer

There are many software systems, but for the sake of time, the team focused on three primary markets: administration systems, patient administration, and physician support systems.

Candidate

What do those systems do?

Interviewer

Patient administration includes systems like admissions and tracking. Physician support systems are more specialized, for individual physician procedures.

Candidate

I would like to know how large each market is and how fast each is growing. I would use secondary sources such as press releases, analyst reports, and published market studies, to obtain this information.

Interviewer

Great! That is what we did during the market study. Our information revealed the following market sizes and growth rates.

	Administration	Patient administration	Physician support
Market size (\$M)	1,500	1,000	1,200
Growth rate	5%	5%	12%

Candidate

From a size and growth perspective, physician support systems looks like a very attractive market. I'd like to know a little about the customers themselves. The client is currently targeting large hospitals. Approximately what percentage of the market do they represent?

Interviewer

We were unable to get an exact breakdown, but we know that these hospitals make up the vast majority of the total medical software market.

Candidate

That would make sense, since the more sophisticated procedures at a hospital might necessitate more advanced software solutions. I know that there have been a lot of changes in the industry as a result of managed care. I don't know much about the industry, so I would want to look at market studies and press clippings to get a better sense of the hospital market in general and any technology or software trends more specifically.

Interviewer

Okay. Let's say that you did that and were presented with this summary of market trends:

- Consolidation in the industry, with three to four large hospital networks dominating 45 percent of the market
- Cost controls instituted, particularly as these large hospital networks acquire smaller hospitals (centralization of functions being a key cost issue)
- Many hospitals seeking to consolidate their vendor base
- With regard to technology, many hospitals upgrading their older systems

Candidate

If hospitals are consolidating vendors, perhaps our client has an advantage in being part of a larger medical company. Maybe the client could also gain some advantages by expanding into other software segments. Are the people responsible for purchasing software at the hospital the same for all three segments?

Interviewer

Like all things, it differs by hospital, but the larger hospital networks, have tried to consolidate their purchasing not only within but also across hospitals.

Candidate

Is the decision maker for medical software the same as for medical instrumentation and devices?

Interviewer

In some cases, the head of purchasing influences both decisions, but the person who makes the final choice is different. Software decisions are usually made by the hospital IT function, and those for instrumentation by the medical staff.

Candidate

I think I have a pretty good understanding of the market for now. Let's look at competition next. We could identify all the competitors and build up the market shares using a combination of public data and estimates.

Interviewer

Well, let's assume that you don't have an infinite amount of time to look at all the competitors. You can only look at the top five competitors in each market. You are given the following data:

Administration Systems	Sales (\$M)	Growth (%)
MedCount	700	4%
HCS Software Systems	100	7%
Morningside Software	80	3%
Admin Systems Solutions	70	2%
HTI Software	50	15%
Patient Administration	Sales (\$M)	Growth (%)
HTI	300	5%
Registration Software Solutions	240	4%
Signup Software	60	3%
HCS Software Systems	30	16%
Patient Software	20	-1%
Physician Support	Sales (\$M)	Growth (%)
HCS Software Systems	150	16%
Physician Support Systems	100	11%
Medical Technology Inc	25	18%
HTI	20	32%
MedSys	5	15%

Candidate

Very interesting. The first thing I would note from the data is that the market concentrations are very different. In administrative systems, the top five competitors control 66 percent of the market and in patient administration, they control 65 percent. But in the physician support market, they control only 25 percent.

I would want to know what gross margins look like in each of these markets as well. I might turn to analyst reports and look at competitors' financial statements to deduce whether they are making money in each market.

Interviewer

Gross margins vary, of course, but the analyst reports have margins of 25 to 30 percent for administrative systems and for patient administration. For physician support, the margins tend to be higher, more like 45 to 50 percent.

Candidate

I see that two competitors, HTI and HCS Software Systems, have very large revenue growth in all three sectors, although they each dominate one. I would want to look at their financials, annual reports, and press releases to find out a bit more about their strategy in each of these areas.

Interviewer

You'd find that they recently entered these noncore markets. Why might they have done that?

Candidate

Perhaps, like our client, each had a strong position in its own segment, HTI in patient administration and HCS Software Systems in physician support. Maybe they too decided to branch out into the other segments to find additional growth.

Interviewer

That is a very good hypothesis. Let's say there is evidence in the sources you consult that supports your assertion.

Candidate

Well, if that were true, these two companies could be a threat not only in the other two segments, but also in our client's segment, administrative systems. It looks as if the client is slowly losing market share in its segment, since it is growing more slowly than its market.

Interviewer

Good observation.

Candidate

The market and competitor trends could also suggest that the client may want to enter these other markets. In particular, the physician support market looks attractive, given it has high growth and lack of a dominant competitor. The higher gross margins may provide attractive returns on the necessary investment in software development. However, the patient administration market may also be attractive. Although it is more concentrated and offers lower margins than physician support, the client may be able to enter this segment with a smaller up-front investment. Given the trend toward upgrading existing computer systems, it may be important for MedCount to have a product offering in each of the three market segments. That should not be too difficult, since the company is already in the software industry.

Interviewer

Perhaps, but you should think a little more closely about these types of software. Are all software systems alike?

Candidate

Well, let me think about that for a moment. I suspect patient administration would have relatively low entry barriers. From your earlier description, these systems appear to be pretty basic, dealing primarily with admissions and patient tracking. However, the entry barriers in physician support might be higher, since these systems are more complex and there are probably multiple systems for the various physician procedures. I guess it would be harder to get into those types of systems.

Interviewer

That would make sense.

Candidate

Since the company might want to go into only some of the segments, I would want to know how important it is to have products in all three segments. Do we know if the competitors are marketing their products as a bundle?

Interviewer

How might you find that out?

Candidate

Since it would be difficult to talk to a competitor directly, I would probably target a competitor's customer, particularly one that just converted from our client's software.

Interviewer

Let's say you get an interview with a customer that recently switched to HTI. You discover that the competitor was offering it a better pricing deal and service for software products in all three segments.

Candidate

How were MedCount's software and service perceived in relation to those of competitors?

Interviewer

The customer thought that its administrative systems were adequate, "the old standby," but not stellar.

Candidate

Were there any other key reasons it switched from MedCount's system?

Interviewer

When it decided to upgrade its systems, it tried to contact MedCount, but could never get a representative to describe its options.

Candidate

Interesting. How did HTI perform?

Interviewer

The HTI representative had heard that the company was considering switching software vendors and provided a sales representative to pitch HTI's administrative product the next day.

Candidate

It definitely sounds as if there was a problem with the sales function and that customer relations need to be improved, particularly for the larger hospital chains. There also seems to be an advantage from both a marketing and sales perspective in having multiple software products. I would want to confirm those views by doing further interviews.

Interviewer

Let's say further interviews support those assumptions.

Candidate

Since we have already looked at the external conditions, I would like to move on to the client itself. I'd like to know more about its marketing and selling organization as well as its software development skills.

So far, we know that our client offers administrative software and that there may be a problem with sales and marketing. Could you tell me a little about the marketing department?

Interviewer

The marketing department is organized regionally. Teams are assigned to hospitals within each state or geographic region, such as New England.

Candidate

That could explain some of the problems with MedCount's marketing and sales. If hospital purchasing is centralized, the marketing organization may be outdated. Does the company have any teams dedicated to the four or five biggest hospital networks?

Interviewer

No, there are no dedicated teams. They talked about doing that for a while, but it conflicted with the regional structure it had in place.

Candidate

With regard to software, does the company feel it has any strengths or weaknesses?

Interviewer

It feels that their administrative product is very strong ("best of breed") and is the dominant technology. Also, the product is modular in design, which allows for easier upgrades. Although the company has never branched out into other market segments, the software developers believe that certain modules could be used to build the foundation for other administrative software programs. The company feels customer support is also an area in which it excels.

Candidate

Let's start with our client's market. The client dominates the administrative software market, which is fairly large but growing slowly, and the company appears to be slowly losing market share. Patient administration is also growing relatively slowly. Both markets are relatively concentrated and appear to offer lower margins than physician support. The physician support market is large and less concentrated, and could potentially provide higher margins, but would require a larger investment. The hospital market itself is becoming more concentrated and is pushing to consolidate vendors. The purchasing agent is often the same for the three types of software.

Looking at our client's competitors, two, HTI and HCS Software Systems, appear to be particularly threatening. Each has a dominant position in one segment and is branching out into other areas. They appear to be marketing their products and services as a bundle and are using service as a key point of differentiation.

The client offers only one type of system and appears to have some weaknesses in its marketing organization, particularly in marketing to the larger hospital networks, which offer the most promising market opportunities.

Interviewer

How would you recommend proceeding?

Candidate

The first priority should be to fix the marketing organization, particularly for the large hospital networks. MedCount will have trouble expanding into new markets if it can't defend its current position and shore up its existing customer relationships. There should be a team dedicated to each of the major chains. The client should also look at improving customer tracking so that it is clear when its customers are going to upgrade. There should also be clear contacts so that the customer can easily keep in touch with MedCount.

Next, I would recommend that the client explore entering the other market segments by leveraging its dominant position in administrative systems. At first glance, patient administration does not appear to be very attractive, with slow growth, low margins, and large, dominant competitors. There appears to be some advantage, however, in having products across the product range. I would recommend that we interview some of MedCount's existing customers to better understand their needs and future IT requirements. If the customer base is interested in one software provider for both back-office administration and patient administration functions, this segment looks promising.

If the client does decide to enter this market, it should look at the lowest-cost method of entry, either developing a product internally or acquiring a competitor. The modular design of its existing administrative software suggests internal development of the patient administration product may be the way to go, but we would need a more thorough comparison of the internal development and acquisition options, including both cost and time to market. I think that physician support offers our client an exciting growth opportunity, given its high margins, high growth, and fragmented competition. I would definitely think about an acquisition strategy, since

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

the client may lack the technical capabilities to enter this specialized market. I would recommend going for one of the larger companies, as that would give the client a stronger position. Smaller companies would probably not offer an important enough position in the market. More research would be needed, however, for us to better understand the intricacies of the market and each potential acquisition.

Interviewer

Those are very interesting conclusions. Thank you.

BCG - Fighter Jet

Interviewer

Your client is a U.S. defense contractor that manufactures the Mohawk Light Fighter Jet for the British Royal Air Force. The company has produced the \$20 million fighter jet for the past 12 years. The British government has decided to put the contract out to bid, however, and to win the program, the client's purchasing agents have estimated, the company will need to cut its costs by 5 percent. It has asked BCG to help it reduce costs.

Candidate

Let me first clarify the question. The client manufactures a \$20 million jet and, because of competitive forces, has to reduce its cost by 5 percent. Is BCG's role also to verify the purchasing department's estimate?

Interviewer

No, you can assume that the purchasing estimate is correct. BCG's role is to find the cost savings to meet that estimate.

Candidate

Could I take a few minutes to think about the case?

Interviewer

Sure, please do so.

Candidate

First, I would like to understand the cost structure of the jet to see what we should look at first. Next, I would like to look at major factors driving the costs we are targeting. Finally, I would like to explore potential ideas to reduce cost.

Interviewer

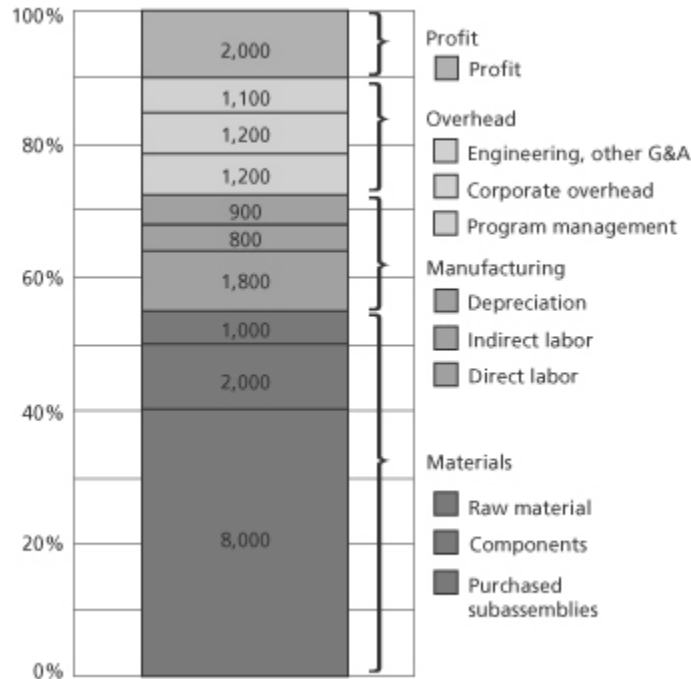
That sounds like a very logical approach. Let's proceed.

Candidate

Because the time for the interview is limited, I think we should try to identify those areas most responsible for the cost of the jet.

Interviewer

Time is limited on real projects as well, so I think that would be a good idea! You have the following cost information for the jet. How would you interpret it?



Candidate

The major cost driver for the jet appears to be purchased materials. Within manufacturing, direct labor is a fairly large component of cost, as are program management and corporate overhead within overhead. I think we would want to concentrate most on materials, however, since that's where most of the costs can be found.

Interviewer

That sounds like a good place to start. Where would you look within materials?

Candidate

I see that materials are broken down into purchased subassemblies, components, and raw materials. I understand what raw materials would be, but what would be the difference between components and subassemblies?

Interviewer

A subassembly functions on its own. An example is the pilot night vision system. A component is a smaller part, such as a part of the engine.

Candidate

I know that governmental agencies often have very strict guidelines about purchasing that could affect the cost of materials.

Interviewer

For the sake of this case, you can assume that the British Ministry of Defense, MOD, allows "commercial off-the-shelf" purchases, which means that the client is free to purchase from whomever it wants, as long as it can ensure that the parts meet MOD quality guidelines.

Candidate

I see that purchased subassemblies comprise more than 70 percent of materials. How many suppliers are there for these subassemblies?

Interviewer

There are seven suppliers of major subassemblies that go into the fighter jet.

Candidate

That seems like a relatively small number. Are there more suppliers that are qualified to do this type of work?

Interviewer

The manufacture of these parts requires a substantial investment in R&D, engineering, and infrastructure. It would be very costly for new suppliers to make the required investment, particularly if the client is trying to reduce the price it pays to the subassembly manufacturers.

Candidate

Since there are only a few subassembly suppliers, and the investment hurdle would preclude bringing in competing manufacturers, it would be difficult to reduce the price paid. Perhaps we should look elsewhere for savings.

Interviewer

But remember, if your client loses the contract, it will lose its customer unless it is teamed with the competing bidder. Even then, if the competitor is underbidding your client, there will be even less room for it to profit.

Candidate

Perhaps it would have an incentive to reduce its costs in order to maintain the contract. Are the majority of its costs in materials as well?

Interviewer

How could you find that out?

Candidate

I would want to interview the purchasing and engineering personnel of the different subcontractors in order to understand their cost structures. If we had a better understanding of their economics, our client might be able to reduce cost across the board, allowing it to compete more effectively for the contract without killing everyone's margins.

Interviewer

Let's say that purchased materials average approximately 70 percent of the price paid to most of the manufacturers.

Candidate

If the cost of subassemblies represents 40 percent of the jet cost and 70 percent of that is purchased materials, total purchased materials would be approximately 28 percent of the cost for

subassemblies. Purchases of raw materials and components represent another 15 percent, for a total of around 43 percent of the cost of the jet. If our client could reduce the cost of raw materials by 20 percent, it could reduce the cost of the jet by more than 8 percent, more than enough to offset the 5 percent reduction it would need to win the contract.

Interviewer

That sounds reasonable, but 20 percent is a very lofty goal. How would you go about doing that?

Candidate

First, I would look at the number of suppliers. Are there a large number of suppliers to the subassembly manufacturers?

Interviewer

The client estimates that there are approximately 125 suppliers of raw materials and components among the manufacturers of the subassemblies and itself.

Candidate

Well, that sounds like a large number of suppliers. Of course, they could be providing very specialized materials to the subassembly manufacturers. Are these suppliers providing customized or more commodity products?

Interviewer

About 80 percent of these products are commodities, such as sheet metal and wire harnesses. Even some of the electronics, such as printed wire boards and circuitry, are fairly generic.

Candidate

That sounds promising, but I would need to know whether these commodities are interchangeable, so that our client could concentrate spending with fewer suppliers. Are there many commonalities among the parts used by the different subassembly manufacturers? We could talk to their engineers and look at the designs and bills of material to determine how much overlap there is.

Interviewer

Let's say that you did this and discovered that approximately 30 percent of the cost of raw materials is from similar materials used across the subassembly manufacturers.

Candidate

It seems safe to assume that the client would need more commonality to be successful in concentrating its purchasing and reducing costs. Do the engineers believe that the percentage of overlap could be increased if the designs were modified?

Interviewer

They believe they could increase that percentage substantially, particularly with basic materials such as screws and sheet metal, but also in other more customized areas.

Candidate

That's great news, but we would still need to know whether the subcontractors are using the same suppliers. We could analyze the number of suppliers for each of the areas of overlap.

Interviewer

Good suggestion. Although there are some common suppliers, the analysis indicates that the subassembly manufacturers tend to use different suppliers.

Candidate

Our client needs to reduce costs by 5 percent. The largest area of opportunity appears to be in purchased materials, the majority of which comprise subassemblies manufactured by seven subcontractors. By looking at its purchases in total, the client can target approximately 40 percent of costs. To achieve the 5 percent cost reduction, it would need to reduce costs by 15 to 20 percent. It could try to do that by increasing commonality in the design of the subassemblies and components and by shifting volume to a smaller number of suppliers.

Interviewer

Considering that the majority of the raw materials and components are purchased commodities, do you think the 15-20 percent cost reduction is achievable?

Candidate

Well, I know that typically have lower margins than more customized products. I suspect it may be challenging to hit the client's savings target by focusing only on these purchases. But since raw materials and components represent about 40 percent of costs and there is an opportunity to concentrate purchasing, I think we should start here.

Interviewer

Where else could you look for savings?

Candidate

If I look back at the cost data on the jet, direct labor is another large cost component. As a contingency, we could look into that area as well. I've read that other companies use outsourcing to lower their manufacturing costs—perhaps our client could do the same. For example, it might want to increase its use of purchased subassemblies and reduce the amount of direct manufacturing it does. Of course this would work only if it could drive direct labor costs below the offsetting cost of these subassemblies. The client will be working closely with the subassembly suppliers to implement its purchasing initiative. This may give it an opportunity to explore the suppliers' capabilities at the same time.

Interviewer

That's an interesting suggestion. How would you recommend the company pursue both of the initiatives you have discussed?

Candidate

I would look first to combine purchases across the subassembly suppliers with our client's purchases. I suspect that the client and the subassembly suppliers will need to share a great deal of information, including engineering drawings and specifications, with potential suppliers of the

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

raw materials and components. The Internet could prove to be a very effective medium for forming a single "virtual" purchasing department to consolidate both the flow of information and purchase orders across the companies. Our client might also want to use a bidding system for those materials that are true commodities.

Next, I would turn to the engineering departments and form cross-company teams to look for areas in which to increase commonality of design. At the same time, those teams could explore opportunities to use more purchased subassemblies and decrease the client's direct labor costs.

Interviewer

That sounds great, and is very similar to a project we did. I would caution you, however, to examine the upfront costs involved in your recommendations, both for the redesign and for the implementation of the purchasing system, before going ahead.

BCG - Foods, Inc.

Interviewer

Your client is the sugar cereal division of Foods Inc., a U.S.-based distributor and manufacturer of packaged foods. According to the division president, Foods Inc.'s traditional strength has been with grocery stores, which still account for the majority of its \$1.1 billion in sugar cereal sales. But Big M Mart, a discount chain, has been growing at a healthy rate of almost 15 percent per year and has now become Food Inc's largest customer. Your client is not sure how to react, and has asked BCG for assistance with its distribution strategy.

Candidate

First, let me make sure I understand the problem. Our client specializes in sugar cereals, and has traditionally distributed through grocery stores. Sales to Big M Mart, a discount chain, have been growing at 15 percent per year, and the chain has recently become the largest distributor of the client's product nationwide. We are here to help evaluate the distribution strategy in light of Big M Mart's growth.

Interviewer

That is correct.

Candidate

Could you explain to me how grocery stores differ from discount stores?

Interviewer

Sure. Grocery stores generally specialize in food, as well as selling some household goods and over-the-counter pharmaceuticals. Discount stores, on the other hand, offer food alongside a wide variety of merchandise, including clothing, home electronics, and housewares.

Candidate

Does Big M Mart market its food products differently than do grocery stores?

Interviewer

Discount stores advertise lower prices for a wide variety of foods, particularly staple, nonperishable foods.

Candidate

Could I take a moment to write a few notes to myself?

Interviewer

Please feel free.

Candidate

Before making recommendations, I think we would need to evaluate whether sales growth at Big M Mart is good or bad for Foods, Inc. To do that, I would first look at how its sugar cereal performance at Big M Mart compares with that in other distribution channels. Second, I would

look at its performance at Big M Mart in relation to competitors' performance. Next, I would determine what drives customer purchases. Finally, I would want to understand the supply chain.

Interviewer

That certainly sounds like a reasonable approach. Let's proceed.

Candidate

First, I would like to get a better sense of where Big M Mart stands relative to our client's other distribution channels by examining the client's sales data and margins, by distributor.

Interviewer

The marketing department does not have margins by channel, but tracks the sales and volume for its top five distributors.

Sales (\$M)	1997	1999	2001	5-Yr CAGR
Big M Mart	142	162	246	14.7%
R.J.'s	157	185	200	6.2%
Bozo Mart	143	175	189	7.3%
Ace Grocery	101	109	153	11.0%
Shoppers Mart	57	62	67	4.0%
Total Top 5	600	693	856	9.3%
Total All Distributors	1,000	1,079	1,150	3.6%
Volume (M boxes)	1997	1999	2001	5-Yr CAGR
Big M Mart	65	74	113	14.7%
R.J.'s	72	81	85	4.2%
Bozo Mart	65	77	80	5.2%
Ace Grocery	46	47	64	8.8%
Shoppers Mart	26	27	28	2.0%
Total Top 5	274	307	370	7.8%
Total All Distributors	450	468	487	2.0%

What does this imply about Big M Mart as a distribution outlet?

Candidate

It looks as if the top distributors have been growing more important, but particularly Big M Mart, which is growing faster than all the others. This is particularly true when we look at volume, where Big M Mart's growth is much higher than that of the other four channels.

Interviewer

And how could you interpret what this data says about margins?

Candidate

While the client's sales through other distribution channels are growing faster than volume, Big M Mart volume and sales growth are the same, so the average price paid by Big M Mart has

remained constant. That implies that sales growth at Big M Mart could have negative implications for our client's margins. Next, I would like to look at how our client is doing in relation to the competition within Big M Mart. Have they been gaining or losing market share?

Interviewer

How might you find that out?

Candidate

I would try to interview Big M Mart's purchasing personnel, since they would probably track those data for their own purposes.

Interviewer

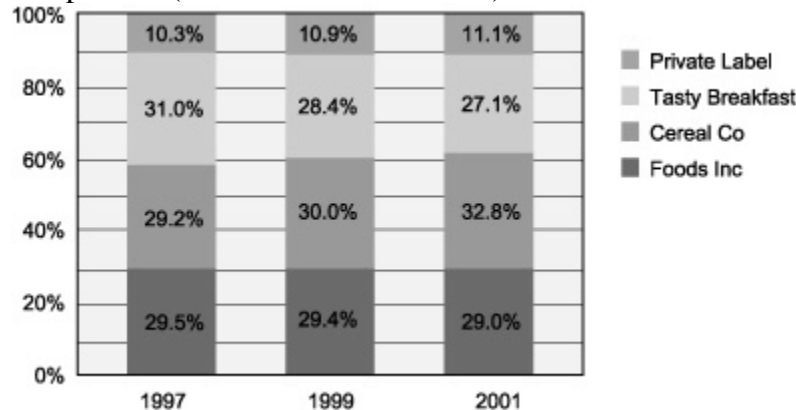
Why would they want to talk to you? How might you approach such an interview?

Candidate

I would approach the purchasing personnel and suggest that our client and Big M Mart work together to identify best practices to reduce costs and increase sales of sugar cereals at Big M Mart.

Interviewer

Let's say in a perfect world you could get a breakdown of Big M Mart sales for the four largest competitors (see market shares below).



Interviewer

What can we infer about our client's competitors within this channel? Who should they be worried about?

Candidate

It looks like our client is losing market share, as is Tasty Breakfast, while Cereal Co. and Private Label are gaining share. Private label, however, looks to be growing from a very small base.

I would like to explore why our client is losing market share to Cereal Co. at Big M Marts. Are their prices better than those of our client's?

Interviewer

After a period of price wars six to seven years ago that lowered industry margins, the cereal companies have refrained from price competition within the same channel.

Candidate

If prices are not driving the difference, I would look at other factors such as brand selection, percentage of shelf space, product placement, and in-store promotions.

Interviewer

Visits to Big M Marts indicate that each name brand company holds 30 percent of the shelf space, while private label has ten percent. However, Cereal Co. brands tend to be placed lower on the shelf than your client's products.

Candidate

Well, I suspect that children are a large target market for the sugar cereal manufacturers. The lower shelf placement could be especially important to children who are looking at the different types of cereals. Are there any other promotions?

Interviewer

Some Cereal Co. brands have sales promotion tags, and the team notes that store flyers advertise specials on Cereal Co. brands for Big M Mart customer cardholders.

Candidate

So, even if all the companies are maintaining product prices, maybe Cereal Co. is strategically discounting prices in order to gain market share.

It seems like there is evidence of cooperation between Cereal Co. and Big M Mart. Do we know anything about the relationship between Big M Mart and Cereal Co.?

Interviewer

During earlier discussions with Big M Mart, you discovered that your client's competitors have 50 sales representatives dedicated to the Big M Mart account. Your client has seven.

Candidate

Cereal Co. appears to be dedicating more resources to its relationship with Big M Mart than is our client. I think I have a good sense of distribution and competition. I would like to look at the customers and why they choose to select the products that they do.

I think I have a good sense of distribution and competition. I would now like to look at the customers and understand why they select the products they do. One hypothesis I have is that shifting brand loyalties are hurting our client's market share at Big M Mart.

Interviewer

That's interesting. What do you think might motivate purchases of sugar cereals?

Candidate

There are lots of factors, such as the games in the boxes, the price of the cereal itself, how it tastes. To better understand consumer behavior, we should conduct market research, possibly through focus groups, customer observation, and price sensitivity studies.

Interviewer

BCG teams often do such research. Let's assume your team conducts some analysis. Your research concludes that most buyers tend to fall into two categories. Approximately 60 percent of buyers go straight to one cereal and grab it. We can call this group the "brand-loyal" shoppers. Another 40 percent of shoppers look at all the cereals and then select one that interests them. Let's call this group the "impulse" buyers.

Candidate

For the brand-loyal shopper, the priority would be product availability, while product placement would be important for consumers who like to shop around.

Interviewer

In general, your research indicates that consumers are not price sensitive and are extremely loyal to their preferred brand. But when the preferred cereal is unavailable, the brand-loyal customers will purchase discounted cereals approximately 35 percent of the time.

Candidate

Well, from that information, it appears that price is not a major driver of purchases unless the preferred cereal is out of stock. In these stock-out situations, you said, brand-loyal customers will purchase discounted cereals 35 percent of the time. What happens when the customer does not purchase a discounted cereal?

Interviewer

In approximately 25 percent of cases, the customer walks away without purchasing any cereal at all. In the remaining 40 percent of cases, the brand-loyal customer will act like an impulse shopper and select another brand.

Candidate

Interesting. It seems as if product availability could be a major driver of total cereal volume for Big M Mart. Of course, we would need to know how often stock-outs that cause consumers to walk away without purchasing cereal occur.

Since I have a pretty good understanding of customer motivation, I'd now like to ask a few questions about the client's supply chain. I would want to talk to our client's distribution personnel to understand the distribution process and to determine how often stock-outs occur. Can you describe how our client's cereal is distributed at Big M Mart?

Interviewer

Cereals are distributed from the factory to the distributor's warehouse twice monthly. The retailer then stocks the shelves itself.

Candidate

Do we have any knowledge about when the individual stores are out of stock?

Interviewer

No, we do not, since our client delivers only to the warehouses and has no direct access to in-store inventory information.

Candidate

Since we identified product availability as a key success factor earlier on, I would want to make sure that the stores were stocking the product correctly.

Interviewer

Let's say that in your earlier in-store investigations, you found out that Big M Mart stores averaged 15 percent of sugar cereal brands out-of-stock, across all brands.

Candidate

Stock-outs would be a major problem for our client, since 60 percent of customers look for a specific brand of cereal and 35 percent of them would buy a discounted brand in a stock-out situation. Big M Mart would also have an incentive to reduce out-of-stock incidents, since 25 percent of the time, a brand-loyal customer will walk away without buying anything.

At this point, I would like to summarize what I know.

Big M Mart is our client's leading customer, accounting for more than 20 percent of our client's sugar cereal revenue. Although sales to Big M Mart are increasing on an absolute basis, our client's margins there are lower than in its other channels and its competitive position is eroding in that channel.

At Big M Mart, our client faces competition from both private label and Cereal Co., although the latter appears to be the greater threat. There appears to be a relationship between Big M Mart and Cereal Co. as evidenced by their joint promotions, the superior placement of the Cereal Co. product, and the substantial resources that Cereal Co. has dedicated to the Big M Mart account.

We learned that 60 percent of customers are brand-loyal, implying product availability is most important. However, 40 percent like to try different kinds of cereal, indicating product placement is also important. Purchasers do not appear to be price conscious, unless the type of cereal they are looking for is out of stock, in which case there is a stronger tendency to base purchases on price promotions.

In terms of distribution, our client is making deliveries twice a month to Big M Mart's warehouses. Big M Mart, in turn, is responsible for stocking the shelves. We currently have no direct knowledge of when our client's items are out of stock at the individual stores, but there is evidence that stock-outs do occur with some frequency.

Interviewer

Well, it sounds as if you understand the situation. What would you recommend the client do?

Candidate

The sales through Big M Mart appear to have a negative impact on the bottom line, as they have lower margins than sales through grocery stores. The client could work with grocery stores to ensure that they are able to compete effectively with Big M Mart in the sugar cereal market. This strategy could be risky, however, since Big M Mart is a large and important customer. Therefore, I would recommend that our client work more collaboratively with Big M Mart.

To defend its current position at Big M Mart stores, the client should move toward a partnership with Big M Mart and dedicate more resources to the relationship. The customer and competitor data indicate that our client's first priority should be to improve distribution to ensure better product availability. In addition, it should push for product placement equal to, if not better than, that of its competitors.

Interviewer

Why would Big M Mart be willing to enter into a partnership with Foods Inc?

Candidate

Foods Inc could offer to share its information about customer behavior to help increase revenues for both itself and Big M Mart. Stock-outs hurt Big M Mart in two ways. First, some brand-loyal customers simply walk away without purchasing cereal whenever their preferred brand is unavailable. Second, we know that other brand-loyal customers purchase lower-priced cereal whenever they encounter a stock-out of their preferred brand. Both of these instances lower Big M Mart's revenue.

By eliminating stock-outs, Big M Mart could increase its sales by simply ensuring that customers don't walk away without making a purchase. Converting these purchase occasions to sales would increase Big M Mart's sales of sugar cereals by more than 2 percent¹.

Better availability also helps Big M Mart and our client increase their revenue by deterring the brand-loyal shoppers from trading down to lower-priced cereals. Recall that 35 percent of the brand-loyal shoppers purchase a discounted cereal if their preferred brand is not available. If improved distribution now makes the preferred brands more consistently available, the customers will pay a higher price for these products.

Finally, we could use the information about consumer purchase behavior to help persuade Big M Mart to share information about product availability in its individual stores. We could work with our client and Big M Mart to improve the current distribution system to allow for more economical deliveries, while at the same time ensuring that our client's product is consistently available in the store.

Interviewer

Thank you. Those sound like solid recommendations, but I would suggest that you fully understand the root cause of the stock-out situations and the cost to eliminate them before moving ahead.

BCG - Canada Co.

Interviewer

Your client is the largest discount retailer in Canada, with 500 stores spread throughout the country. Let's call it CanadaCo. For several years running, CanadaCo has surpassed the second-largest Canadian retailer (300 stores) in both relative market share and profitability. However, the largest discount retailer in the United States, USCo, has just bought out CanadaCo's competition and is planning to convert all 300 stores to USCo stores. The CEO of CanadaCo is quite perturbed by this turn of events, and asks you the following questions: Should I be worried? How should I react? How would you advise the CEO?

Candidate

So, the client, CanadaCo, is facing competition in Canada from a U.S. competitor. Our task is to evaluate the extent of the threat and advise the client on a strategy. Before I can advise the CEO I need some more information about the situation. First of all, I'm not sure I understand what a discount retailer is!

Interviewer

A discount retailer sells a large variety of consumer goods at discounted prices, generally carrying everything from housewares and appliances to clothing. Kmart, Woolworth, and Wal-Mart are prime examples in the U.S.

Candidate

Oh, I see. Then I think it makes sense to structure the problem this way: First, let's understand the competition in the Canadian market and how CanadaCo has become the market leader. Then let's look at the U.S. to understand how USCo has achieved its position. At the end, we can merge the two discussions to understand whether USCo's strength in the U.S. is transferable to the Canadian market.

Interviewer

That sounds fine. Let's start, then, with the Canadian discount retail market. What would you like to know?

Candidate

Are CanadaCo's 500 stores close to the competition's 300 stores, or do they serve different geographic areas?

Interviewer

The stores are located in similar geographic regions. In fact, you might even see a CanadaCo store on one corner, and the competition on the very next corner.

Candidate

Do CanadaCo and the competition sell a similar product mix?

Interviewer

Yes. CanadaCo's stores tend to have a wider variety of brand names, but by and large, the product mix is similar.

Candidate

Are CanadaCo's prices significantly lower than the competition's?

Interviewer

No. For certain items CanadaCo is less expensive, and for others the competition is less expensive, but the average price level is similar.

Candidate

Is CanadaCo more profitable just because it has more stores, or does it have higher profits per store?

Interviewer

It actually has higher profits than the competition on a per-store basis.

Candidate

Well, higher profits could be the result of lower costs or higher revenues. Are the higher per-store profits due to lower costs than the competition's or the result of higher per-store sales?

Interviewer

CanadaCo's cost structure isn't any lower than the competition's. Its higher per-store profits are due to higher per-store sales.

Candidate

Is that because it has bigger stores?

Interviewer

No. CanadaCo's average store size is approximately the same as that of the competition.

Candidate

If they're selling similar products at similar prices in similarly-sized stores in similar locations, why are CanadaCo's per-store sales higher than the competition's?

Interviewer

It's your job to figure that out!

Candidate

Is CanadaCo better managed than the competition?

Interviewer

I don't know that CanadaCo as a company is necessarily better managed, but I can tell you that its management model for individual stores is significantly different.

Candidate

How so?

Interviewer

The competitor's stores are centrally owned by the company, while CanadaCo uses a franchise model in which each individual store is owned and managed by a franchisee who has invested in the store and retains part of the profit.

Candidate

In that case, I would guess that the CanadaCo stores are probably better managed, since the individual storeowners have a greater incentive to maximize profit.

Interviewer

You are exactly right. It turns out that CanadaCo's higher sales are due primarily to a significantly higher level of customer service. The stores are cleaner, more attractive, better stocked, and so on. The company discovered this through a series of customer surveys last year. I think you've sufficiently covered the Canadian market-let's move now to a discussion of the U.S. market.

Candidate

How many stores does USCo own in the U.S., and how many does the second-largest discount retailer own?

Interviewer

USCo owns 4,000 stores and the second-largest competitor owns approximately 1,000 stores.

Candidate

Are USCo stores bigger than those of the typical discount retailer in the U.S.?

Interviewer

Yes. USCo stores average 200,000 square feet, whereas the typical discount retail store is approximately 100,000 square feet.

Candidate

Those numbers suggest that USCo should be selling roughly eight times the volume of the nearest U.S. competitor!

Interviewer

Close. USCo's sales are approximately \$5 billion, whereas the nearest competitor sells about \$1 billion worth of merchandise.

Candidate

I would think that sales of that size give USCo significant clout with suppliers. Does it have a lower cost of goods than the competition?

Interviewer

In fact, its cost of goods is approximately 15 percent less than that of the competition.

Candidate

So it probably has lower prices.

Interviewer

Right again. Its prices are on average about ten percent lower than those of the competition.

Candidate

So it seems that USCo has been so successful primarily because it has lower prices than its competitors.

Interviewer

That's partly right. Its success probably also has something to do with a larger selection of products, given the larger average store size.

Candidate

How did USCo get so much bigger than the competition?

Interviewer

It started by building superstores in rural markets served mainly by mom-and-pop stores and small discount retailers. USCo bet that people would be willing to buy from it, and it was right. As it grew and developed more clout with suppliers, it began to buy out other discount retailers and convert their stores to the USCo format.

Candidate

So whenever USCo buys out a competing store, it also physically expands it?

Interviewer

Not necessarily. Sometimes it does, but when I said it converts it to the USCo format, I meant that it carries the same brands at prices that are on average ten percent lower than the competition's.

Candidate

What criteria does USCo use in deciding whether it should physically expand a store it's just bought out?

Interviewer

It depends on a lot of factors, such as the size of the existing store, local market competition, local real estate costs, and so on, but I don't think we need to go into that here.

Candidate

Well, I thought it might be relevant in terms of predicting what it will do with the 300 stores that it bought in Canada.

Interviewer

Let's just assume that it doesn't plan to expand the Canadian stores beyond their current size.

Candidate

OK. I think I've learned enough about USCo. I'd like to ask a few questions about USCo's ability to succeed in the Canadian market. Does USCo have a strong brand name in Canada?

Interviewer

No. Although members of the Canadian business community are certainly familiar with the company because of its U.S. success, the Canadian consumer is basically unaware of USCo's existence.

Candidate

Does CanadaCo carry products similar to USCo's, or does the Canadian consumer expect different products and brands than the U.S. discount retail consumer?

Interviewer

The two companies carry similar products, although the CanadaCo stores lean more heavily toward Canadian suppliers.

Candidate

How much volume does CanadaCo actually sell?

Interviewer

About \$750 million worth of goods annually.

Candidate

Is there any reason to think that the costs of doing business for USCo will be higher in the Canadian market?

Interviewer

Can you be more specific?

Candidate

I mean, for example, are labor or leasing costs higher in Canada than in the U.S.?

Interviewer

Canada does have significantly higher labor costs, and I'm not sure about the costs of leasing space. What are you driving at?

Candidate

I was thinking that if there were a higher cost of doing business in Canada, perhaps USCo would have to charge higher prices than it does in the U.S. to cover its costs.

Interviewer

That's probably true, but remember, CanadaCo must also cope with the same high labor costs. Can you think of additional costs incurred by USCo's Canadian operations that would not be incurred by CanadaCo?

Candidate

USCo might incur higher distribution costs than CanadaCo because it will have to ship product from its U.S. warehouses up to Canada.

Interviewer

You are partially right. CanadaCo has the advantage in distribution costs, since its network spans less geographic area and it gets more products from Canadian suppliers. However, since CanadaCo continues to get a good deal of product from the U.S., the actual advantage to CanadaCo is not great—only about two percent of overall costs.

Candidate

All this suggests that USCo will be able to retain a significant price advantage over CanadaCo's stores: if not ten percent, then at least seven to eight percent.

Interviewer

I would agree with that conclusion.

Candidate

I would tell the CEO the following: In the near term, you might be safe. Your stores have a much stronger brand name in Canada than USCo's, and they seem to be well managed. However, as consumers get used to seeing prices that are consistently seven to eight percent less at USCo, they will realize that shopping at USCo means significant savings over the course of the year. Although some consumers will remain loyal out of habit or because of your high level of service, it is reasonable to expect the discount shopper to shop where prices are lowest. Moreover, over time your brand-name advantage will erode as USCo becomes more familiar to Canadian consumers. You certainly have to worry about losing significant share to USCo stores in the long term. You should probably do something about it now, before it's too late.

Interviewer

Can you suggest possible strategies for CanadaCo?

Candidate

Maybe it can find ways to cut costs and make the organization more efficient, so it can keep prices low even if its cost of goods is higher.

Interviewer

Anything else?

Candidate

It might consider instituting something like a frequent shopper program, where consumers accumulate points that entitle them to future discounts on merchandise.

Interviewer

What might be a potential problem with that?

Candidate

Well, it might not be that cost-effective, since it would be rewarding a significant number of shoppers who would have continued to shop there anyway.

Interviewer

Any other suggestions?

Candidate

CanadaCo might want to prepare a marketing or advertising campaign that highlights its high level of service. It might even institute a CanadaCo Service Guarantee that surpasses any guarantees offered by USCo.

Interviewer

Assuming the only way to keep customers is through competitive pricing, is there anything CanadaCo can do to appear competitive to the consumer?

Candidate

It might want to consider offering fewer product lines, so that it can consolidate its buying power and negotiate prices with suppliers that are competitive with USCo's. It might lose some customers who want the variety of products that USCo has, but it may be able to retain the customer who is buying a limited array of items and is just looking for the best price.

Interviewer

All of your suggestions are interesting, and you would want to analyze the advantages and disadvantages of each in more detail before making any recommendations to the CEO.

BCG - Phones in Manhattan

Q: How many pay phones are there on the island of Manhattan?

A: A logical place to begin your analysis might be to ballpark the number of pay phones on Manhattan street corners. If you think of New York City as a grid of streets, you might guess it is about 300 streets long (north to south) by ten streets wide (east to west), so it has approximately 3,000 intersections. You might then assume there is one pay phone for every two intersections, for a total of about 1,500 pay phones.

If you're feeling really creative, you might subtract the number of intersections that are "invalidated" because they fall in the area of Central Park. Say Central Park is ten blocks long by two blocks wide, or 20 intersections. Using your one-pay-phone-for-every-two-intersections assumption, you would want to subtract ten pay phones from the original 1,500.

You might then add to the 1,490 the number of pay phones that might be found in restaurants, hotels, schools, hospitals, and office-building lobbies.

BCG - Hotel-sized Shampoo

Q: How many hotel-sized bottles of shampoo and conditioner are produced each year around the world?

A: You might begin by assuming that hotel-sized bottles are produced for two purposes only:

1. To supply hotels and upscale motels
2. To provide samples for gift packs, salons, and so on

You would then want to start by estimating the number of hotels and motels around the world that offer the products to their guests. One way of estimating the number of hotels is to assume that hotels are found predominantly in major cities and resorts. Figure that there are 2,000 major cities and resorts around the world, an average of ten for each of the world's approximately 200 countries. Assume that each city averages 20 hotels that offer bottled hair products to their guests. Multiplying 20 by 2,000 gives you 40,000 hotels around the world that require shampoo and/or conditioner for their guests.

To understand how many bottles of shampoo and conditioner the 40,000 hotels require, you now need to estimate the total number of uses each hotel on average represents. You can arrive at that number through the following calculation: assume that there are 100 rooms in each hotel, and that those rooms are occupied 50 percent of the time. Multiplying 40,000 by 100 by 0.5 by 365 (don't forget the number of days in the year!) gives you approximately 750 million.

However, it is probably reasonable to assume that a guest staying for longer than a day will not use a whole shampoo bottle every day. If you assume that an average of one shampoo bottle is used for every two occupied days in a given room, you can now divide your 750 million estimate in half to 375 million. To get to the number of bottles of conditioner, estimate a ratio between the use of shampoo and the use of conditioner. Since many of us do not condition every time we shampoo, you might assume that the ratio is 2:1. Dividing 375 million in half gives you approximately 190 million. Your conclusion would then be that 375 million bottles of shampoo and 190 million bottles of conditioner are required for hotel use every year.

To estimate the total market size, you can probably make things easy on yourself by assuming that the number produced for sample purposes is a small percentage of the total, say ten percent. Combining your two markets would give you approximately 400 million bottles of shampoo and 210 million bottles of conditioner.

Finally, you might want to "reality check" your total figure. Assuming 610 million bottles are produced and sold each year at an average price of 25 cents each, the worldwide market for miniature bottles of shampoo and conditioner is about \$150 million. Does that sound reasonable?

BCG - Light Bulbs

Q: You are in a room with three light switches, each of which controls one of three light bulbs in the next room. Your task is to determine which switch controls which bulb. All lights are off. Your constraints are: you may flick only two switches and you may enter the room with the light bulbs only once. How would you set about determining which switch controls which bulb?

A: To solve this riddle you must do some out-of-the-box thinking. The best way to determine which light bulb is which is to flick one switch on, wait for five minutes and flick it off. Then flick one of the remaining two switches on and leave the other off. When you enter the room with the bulbs, you can determine which switch controls which of the two lights that are off by feeling to see which of the bulbs is hot (from having burned for five minutes).

Other creative solutions involve pushing the constraints of the game. You might ask if the room you're in has a phone, so you could call somebody to help you. You might ask if the rooms have a connecting window. You might assume you can leave the first room a number of times, and therefore go out, buy a drill, and bore a hole through the wall so you can see which light bulb is connected to which switch. Or, you might buy a mirror and place it strategically outside the door to guide you.

Remember, you are limited only by your imagination.

Mercer - Hammer Jack

The case is longer and more comprehensive than any one interview you are likely to have, but the individual exercises are common interview questions.

The case is organized in five sections: Introduction, Fact Gathering, Analysis, Recommendations, and Conclusion. The tab of the section you are in will always be highlighted for clarity. You can click on the tabs to skip directly to a new section. We have also included tips and commentary to maximize your learning. Completing the entire case will likely take you 1 - 1.5 hours.

Hammer Jack is the third-largest retailer of hardware products in the U.S. home improvement market, with annual sales of \$5 billion.

Hammer Jack has experienced a steady decrease in profits over the past five years, and the CEO foresees another shortfall in earnings this year. He is concerned about not meeting the earnings expectations of Wall Street analysts. Your team has been hired to identify and recommend ways to generate a minimum of \$25 million in additional operating profit within the next year.

You and your case team will arrive at Hammer Jack's headquarters next Monday for a brief project kick-off meeting with the CEO and his direct reports, Lorraine Smith (Chief Operating Officer), Henry Lee (Executive Vice President of Business Development), and Jacques Laporte (Executive Vice President of Marketing and Sales).

You will need to prepare for this initial client meeting by gathering some background information and thinking through the questions you would want to ask during the meeting to focus your efforts going forward.

In preparation for the kick-off meeting with the client, your case manager asks you to estimate the market size and recent growth of the home improvement retail market in the U.S.

What is your best estimate, within an order of magnitude, of the size of the U.S. home improvement industry? Think through the assumptions you need to make and be ready to explain them.

Options

\$1-2 billion

\$10-20 billion

\$100-200 billion

\$1-2 trillion

The size of the home improvement industry in the U.S. is \$100-200 billion. Specifically, it was \$160 billion in 2000.

One approach for estimating the size of the home improvement industry in the U.S. is:

Market revenues = (Number of households) X (Average home improvement spending per household per year)

Number of Households: According to the 2000 U.S. census, there are approximately 100 million households in the U.S. (or 300 million people in the U.S. and an average of 3 people per household).

Average Home Improvement Spending: Each household spends an average of \$1,600 per year on home improvement products and projects - think about spending that ranges from minor maintenance (several hundred dollars/year) to major upgrades and remodeling (several thousands or tens of thousands of dollars/year).

100 million x \$1,600 = \$160 billion

Market sizing is a common way for interviewers to test your creativity, analytical abilities, and logic. Interviewers will look for reasonable assumptions and a clear structure to your answer, not for a "right" answer.

You now turn to the industry growth question. Has the home improvement industry been growing or shrinking in recent years, and how fast?

You find an industry report that says that in 1996, the home improvement industry generated \$125 billion in revenues. You already know that the industry's revenues were \$160 billion in 2000. What has the industry's annual growth rate been during this period?

Options

28.0% = $(\$160/\$125) - 1$

7.0% = $(\$160/\$125 - 1)/4$

5.6% = $(\$160/\$125 - 1)/5$

6.4% = $(\$160/\$125)^{(1/4)} - 1$

The industry grew at an annual rate of 6.4% between 1996 and 2000.

The three key elements in this analysis are:

Estimate annual (not total) growth over the period

Determine the correct number of annual periods over which growth occurred (there are only 4 full years between 1996 and 2000)

Recognize that growth compounds (e.g., \$100 growing at 20% for two years is not $\$100 \times (1 + 40\%) = \140 , but $\$100 \times 1.20 = \120 in year 1 and $\$120 \times 1.20 = \144 in year 2)

Interviewers do not expect you to perform calculations that are better done with a calculator! They are looking for your reasoning and your logic – these are more important than the numbers.

The first choice, 28%, is the total, not the annual growth of the industry during this period.

The second choice, 7.0%, is the straight average growth rate over 4 years. This is too high, because it does not recognize that growth rates compound, i.e., that the growth of each

subsequent year applies to both the base and the growth amount of the previous year. (In fact, the straight average growth rate of 7.0% will over-estimate the 2000 revenues at \$164 billion).

The third choice, 5.6%, would be the straight average growth rate over 5 years. It does not recognize the impact of compounding, but more importantly, it uses the wrong number of growth periods – there are only 4 annual growth periods between 1996 and 2000 (96-97, 97-98, 98-99, and 99-00). Therefore, it is too low. (In fact, a rate of 5.6% will under-estimate 2000 revenues at \$155 billion).

Since the straight average 4-year growth rate of 7% is always an overestimate of the actual growth, then the fourth choice, 6.4%, which is slightly lower, is the correct answer. The formula reflects the compounding of growth that occurs over four years, and is known as the "compound annual growth rate."

You must now think through questions you would want to ask the client during the initial meetings. What information would be most useful to you in helping you come up with initial hypotheses and work toward a solution?

During both interviews and actual client cases, time is limited. You need to focus your questions on key issues that will help you generate and rule out hypotheses. Remember, you will have a chance to dig into details later.

We have limited the number of questions you can ask to four:

What are Hammer Jack's latest financial results?

- 1 What is Hammer Jack's source of differentiation?
- 2 Who are Hammer Jack's customers?
- 3 What is Hammer Jack's scope of products and services?
- 4 Has Hammer Jack made any changes to its products or prices?
- 5 How have Hammer Jack's costs changed in recent years?
- 6 What store formats does Hammer Jack use? Have they changed?
- 7 Does profitability vary across Hammer Jack's different locations?
- 8 Have there been changes in how Hammer Jack supplies its products?
- 9 Who are Hammer Jack's main competitors and what is their market share?
- 10 How does Hammer Jack's performance compare to competitors'?
- 11 How do competitors in this market differentiate themselves?
- 12 What are the major trends affecting the home improvement industry?

Who are Hammer Jack's customers?

Hammer Jack's Key Customer Segments

Do-It-Yourself

Fixer-uppers who are always working on some home improvement

Maintenance

Typical homeowners who buy an occasional one-off item for minor repairs

Professionals

Experienced workers and contractors who buy supplies for jobs in bulk

A recent study helped Hammer Jack identify these three segments and their purchasing needs. It found that they buy a different mix of products with different frequencies, and therefore, generate different levels of revenues and profits for the company. However, Hammer Jack has not served customers in a differentiated way, or targeted them with unique offerings.

Great question! A company's ability to generate profits largely depends on how well its products and services meet its customers' needs. Understanding who the customers are and what their priorities are (and how these are changing) can often give you insight into why a company is able or unable to make money.

Has Hammer Jack made any changes to its products or prices?

Hammer Jack maintains a competitively wide array of products. While the company has made adjustments to the volumes of products carried in response to demand changes, its basic product/service offering has been the same. Prices on average have also held steady over the past five years.

Great question! Understanding how products and prices have changed can provide insight into why revenues and/or profits have changed.

If the product mix has shifted toward lower margin products, this would lower Hammer Jack's profitability. Alternatively, if the product mix hasn't changed, but the market and competitors have, Hammer Jack could be behind the times and losing customers and revenues as a result

If pricing pressures have been driving prices down, Hammer Jack would have seen a decline in profitability, assuming all else has remained the same

How have Hammer Jack's costs changed in recent years?

Three years ago, Hammer Jack went through a major reengineering initiative which helped it streamline operations and cut costs. As a result, costs initially declined rapidly as a percentage of revenues. In the most recent year, the benefits of the initiative have begun to flatten out, but costs as a share of revenues have continued to decline.

Great question! Understanding whether costs have increased or decreased over time provides you with direct insight into the causes of a profitability decline.

How does Hammer Jack's performance compare to competitors'?

Hammer Jack's market share has been declining. Its top three competitors appear to have been keeping up with or leading the industry in terms of revenue and earnings growth. Hammer Jack's financial performance has been lagging that of these key competitors.

Great question! When a client's financial performance has declined, it is important to investigate how its competitors have fared. Industry-wide issues may require different strategic approaches than issues that are specific to the company.

At this point in your interview, it is useful to review the information you have gathered so far, and draw any implications from what you have learned.

Pull back and summarize your findings at regular intervals during an interview. It will help you stay on track. It also shows your ability to process information and draw relevant implications.

Excellent choice of questions! You correctly identified the four most critical issues for investigation.

At this point in your interview, it is useful to review the information you have gathered so far, and draw any implications from what you have learned.

Pull back and summarize your findings at regular intervals during an interview. It will help you stay on track. It also shows your ability to process information and draw relevant implications.

Key findings about Hammer Jack:

- Hammer Jack is the third largest retailer in the home improvement market, with \$5 billion in revenues and declining profits.
- The industry is growing (6.4% annually). Hammer Jack's top competitors have performed as well as, or better than, the industry in revenue growth and earnings performance. Hammer Jack has been losing market share to its competitors.
- Hammer Jack has identified three customer segments, each with different buying behavior and needs, generating different levels of revenues and profits. However, it has not served these segments in a differentiated way.
- The company's product mix and prices are competitive, and have not changed significantly in recent years.
- Hammer Jack streamlined its operations recently and costs as a percent of revenues have been declining, albeit slower in the last year.

What conclusions can you draw about the causes of Hammer Jack's declining profits? What hypotheses do you have for possible solutions?

Based on your initial fact gathering, you should have some hypotheses for how the client could generate \$25 million in additional profits. You must now test and analyze these hypotheses before making your recommendations.

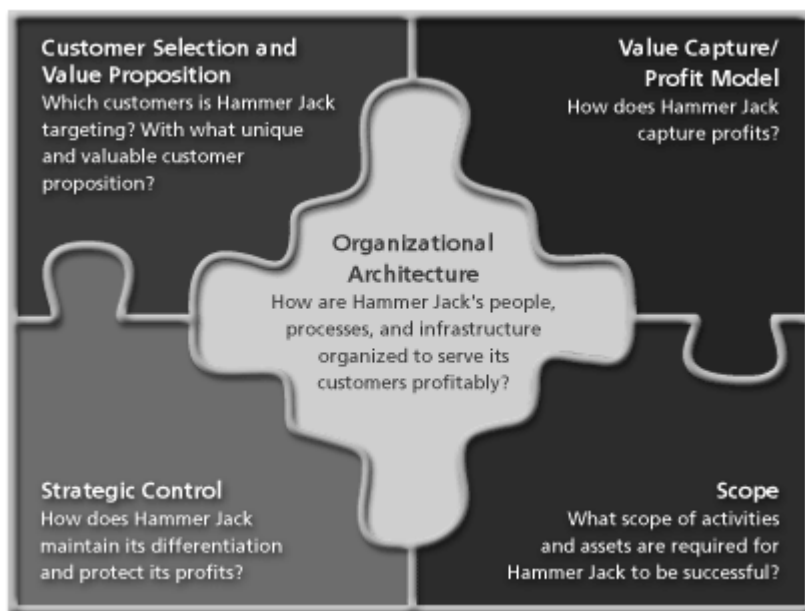
Have a clear structure or framework to organize your thoughts while solving a case. You can apply a well-known framework, or you can use your own. The key is to show that you can logically think through and solve a problem.

Mercer's approach to analyzing strategic business issues often involves examining all elements of a company's business design. A company's "business design" encompasses how it:

- Selects its customers and creates utility for them
- Differentiates itself and protects its market position
- Defines the tasks it will perform itself and those it will outsource
- Configures its internal systems and organization
- Captures profit

For more on business design, see Mercer's book *The Profit Zone* and the business design issue of *Mercer Management Journal* (# 10).

You can now explore various aspects of Hammer Jack's business design in more depth. Click on the business design element you would like to investigate. You should base your selection on your hypotheses for how Hammer Jack can improve its profitability. You will be able to return to this page to make additional choices at any time.



Customer Selection and Value Proposition

Customers determine where a company is allowed to make a profit. "Customer selection" defines the set of customers a company chooses to serve (as well as those it chooses not to serve). To succeed, companies need to identify the most valuable customer segments and offer them products and services that address their current and emerging top priorities.

To understand who Hammer Jack’s customers are, how well the company is serving them, and what profitable opportunities exist, you contact Jacques Laporte, the Executive Vice President of Marketing and Sales. His group has conducted a customer survey, which identified three main customer segments:

- Professionals: Experienced workers and contractors. They spend an average of \$50,000 per year. However, this segment has been shrinking in size industry-wide.
- Do-It-Yourself: Fixer-uppers, doing work and home improvement projects around the house. They spend an average of \$5,000 per year on home improvement. This has been the fastest growing customer segment in the industry.
- Maintenance: Homeowners, buying small repair and maintenance items as needed. They typically spend \$500 per year. This segment has been growing at about the same rate as population growth.

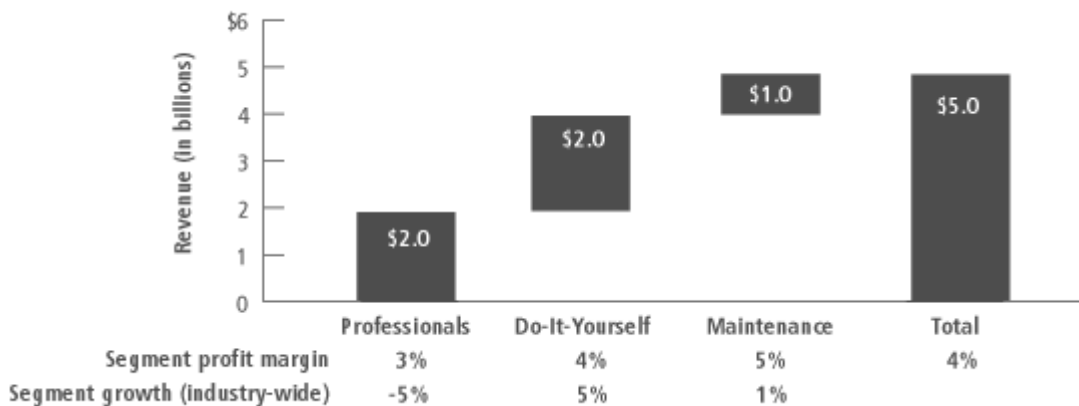
To study differences in the product mix purchased by each segment, the survey divided Hammer Jack’s products into two main categories – Raw materials and Finished products:

- Raw materials: Commodity goods such as wood, steel, or concrete (profit margin: 2%)
- Finished products: Manufactured and high-end items such as sinks, fixtures, lighting, decorative items, and tools (profit margin: 6%)

The results of the survey showed that Professionals purchase primarily raw materials, whereas Maintenance customers buy almost exclusively finished products. Do-It-Yourselfers split their purchases between these two product categories.

Using the customer survey data, Jacques’ group has calculated the profit margin associated with each segment. This profit margin is determined by the mix of products that each segment buys, and the profitability of each product type. The results are summarized below:

2000 Hammer Jack Revenue Breakdown by Customer Segment

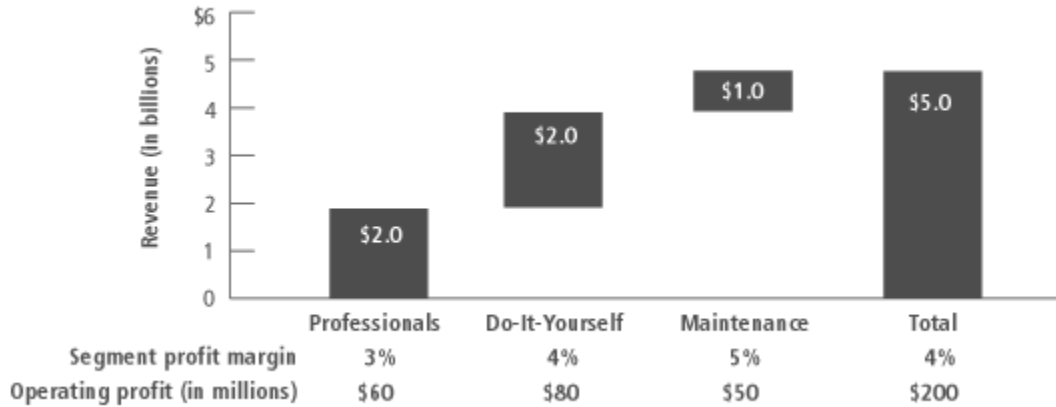


Based on this information, which segment generates the most operating profit for Hammer Jack?

DIY is the correct answer. Based on the chart data, the customer segment that generates the most operating profit is the Do-It-Yourself segment (\$80 million).

Segment profits = Segment revenues X Segment profit margin

Segment profits are shown in the last row of the graph below.



The Maintenance segment has the highest margin but it generates the least revenue. As a result, its contribution to operating profits in absolute \$ is lower than the other segments.

You may notice that Professionals generate the highest profit per customer because of the high volume per individual. However, there are few customers in this segment, and because they buy mostly raw materials, their profit margin is actually the lowest of the three segments. Overall, they generate fewer profits than the Do-It-Yourself segment.

From a strategic point of view, Hammer Jack should target its most valuable customers – the Do-It-Yourself segment. However, it should not do so exclusively. Segment attractiveness does not depend solely on current profit generation. Other important factors to consider include: Are the segments growing or shrinking? Are customer priorities changing? What is the potential to sell additional products and services to each segment? etc. Taking such factors into consideration suggests that the Maintenance segment may also present attractive profit-generating opportunities – the Maintenance segment is highly profitable, still growing, and with customer service needs that have some similarities with the Do-It-Yourself segment.

Consideration of 'other', often qualitative, factors demonstrates your ability to think holistically about an issue. Draw upon your personal, real-life experiences to sanity-check your conclusions.

For example, when defining Hammer Jack's target customers, "other" important factors to consider include:

- **Segment growth.** Even though Professionals' current operating profits exceed those of the Maintenance segment, the size of the Professional segment is shrinking. The Maintenance segment is small, but growing (modestly) and highly profitable, and its profits will surpass those from Professionals within three years!
- **Add-on sales potential.** The Maintenance segment is small, but growing, profitable, and potentially more open to the marketing of new, high-margin products and service packages than the Professionals segment.
- **Cost to serve.** Service costs vary between customer segments. Customers who generate a lot of revenues, but demand high service levels may be less profitable than lower revenue/lower

cost-to-serve customers. In Hammer Jack's case, you can assume that these costs are factored into the segment profit margins.

- **Actionability.** If target customers cannot be reached with the client's current business design, any major changes that are required will take time to implement. Hammer Jack's current retail network appears well equipped to reach all of the potential target customer segment(s).

In summary, given current segment profits and the "other" factors discussed above, Hammer Jack should target the DIY segment, with some continued focus on the Maintenance segment.

Now that you have identified Hammer Jack's most valuable customer segments, you need to examine the value proposition that the company offers to capture their business.

A company's "value proposition" is the utility it creates for customers. This includes the price and functionality of the product or service as well as the convenience, speediness and reliability of delivery, customer service, and prestige and image associated with the product or service. The first step in creating a good (and profitable!) value proposition is understanding the customer's needs.

Jacques Laporte's Marketing and Sales team researched customer needs and preferences. Quotes from the survey of Do-It-Yourself customers include:

- "It takes me so long to put together everything I need for a project. I mean, the store layout is fine, but I always forget the brushes, or the screws, or something, and end up having to make several trips."
- "It sometimes takes me several months to get a project going, because I just can't seem to fit the shopping and planning into my normal work schedule. I work all day, 6 days a week, so that leaves me with Saturday afternoon for all the errands..."
- "I put projects on hold, because it always ends up costing me more than I thought it would. I'd love to know how much it's going to cost me without having to walk around with a calculator. Tell me, "Here's the total", and I'll be fine."
- "I love doing work around the house. For example, I'd much rather change the kitchen wallpaper myself, but I've never done it and it seems daunting. I am not sure where to start."
- "Home improvement is expensive. It's tough to pay all at once for some of the big projects I want to do. It seems easier to buy furniture or a car, even though they cost more."
- "I enjoy the work, but I hate the logistics. The whole experience – wandering around the isles, breaking my back hauling stuff to my car, unloading it all at home – is miserable."

A separate team also benchmarked Hammer Jack's store format and its current product portfolio. The team found that the range and mix of products offered is competitive, and that while store formats vary slightly among competitors, there are no clear "winners", and Hammer Jack's stores are at least as appealing and functional as the rest of the industry.

What does this information tell you? What are the strategic implications for Hammer Jack?

Based on this information, it is clear that while its product selection and store formats are competitive in the market, Hammer Jack's value proposition does not address the full scope of needs of its most valuable customers, the Do-It-Yourselfers.

DIY customers want to be able to do more things themselves, but need training, more support, and a simpler shopping and project execution experience. In the unmet needs of Hammer Jack's most profitable customers lies a clear opportunity for the company to improve its profitability.

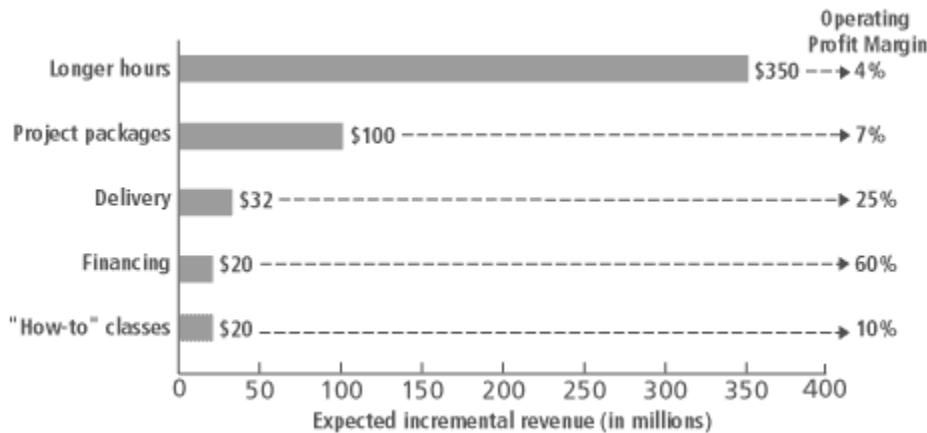
Think about the type of new products and services Hammer Jack could offer to better meet its customers' needs and generate additional earnings in the process.

Here are some ideas you might have come up with to help Hammer Jack address the unmet needs of its target customers and increase operating profits:

- **Longer store hours.** Do-It-Yourselfers have other jobs. Extending store hours gives them the convenience to shop after work and during more hours on the weekend.
- **Project packages.** Putting all materials needed for a project together into one package simplifies the shopping experience for non-professionals and helps simplify project planning. It also allows Hammer Jack to capture all purchases related to a customer's project.
- **"How-to" classes.** Training classes (e.g., every Sunday, or on a pre-scheduled basis) would enable customers to do more complex home projects themselves, driving demand for a broader range of products. Class fees would also contribute to Hammer Jack's bottom line.
- **Financing.** Making payment easier by enabling customers to receive financing for large home improvement projects could both spur demand and add a high-margin revenue stream (financing fees) to Hammer Jack's financials.
- **Delivery services.** Offering home delivery of large/heavy materials and products (for a fee) could address customers' inconvenience concerns and increase their preference for shopping at Hammer Jack's.

Before presenting your recommendations to Hammer Jack, you should prioritize the options and ensure that they can help the client achieve its earnings goal. You work with Jacques Laporte's group to size the potential market and estimate the expected operating profit margin from each of these initiatives.

Focusing primarily on the Do-It-Yourself segment, but assuming some adoption by the Maintenance and Professional segments as well, you and Jacques' team estimate the potential revenue and operating profit margin of each initiative as follows:



Based on these data, how should Hammer Jack prioritize these initiatives?

Consider the following questions:

- How much revenue does each initiative generate?
- Based on their profit margins, how much operating profit does each initiative generate?

Based on the profit data provided, we would prioritize the five initiatives as follows:

1. Longer hours (Expected profits: \$14 million)
2. Financing (Expected profits: \$12 million)
3. Delivery (Expected profits: \$8 million)
4. Project packages (Expected profits: \$7 million)
5. "How-to" classes (Expected profits: \$2 million)

No single initiative will enable Hammer Jack to reach its \$25 million in additional operating profits. Therefore, two or more initiatives in combination must be implemented in order to meet the company's goal. For example, longer hours and financing, or financing and project packages and delivery will enable Hammer Jack to reach its operating profit goal.

What other factors would you consider when prioritizing the initiatives and making recommendations to the client?

From a strategic standpoint, several other factors should be considered when prioritizing the initiatives before making the final recommendation:

- Time to implementation and ramp-up time: How long will it take to roll out an initiative? How long will it take before the benefits can be felt?
 - None of the initiatives here require significant development or roll out time; while there will be some ramp-up time before each initiative can reach its maximum potential, they are comparable in this respect. Ramp-up time considerations, however, would argue for pursuing more than two initiatives right away to achieve the target of \$25 million within a year.
- Cost of implementation: Do initiatives require significant initial investment?
 - All of the proposed initiatives appear to be relatively 'quick hits', requiring low investment; "Delivery" is the only one that may require some additional equipment and capability.
- Impact of initiative on current business: Will an initiative cannibalize existing revenues?
 - Project packages may cannibalize sales of single items that Do-It-Yourselfers would have bought separately. However, "package" sales are expected to generate additional sales, with overall higher margins than comparable single items. The expected incremental revenues and profits are net of assumed cannibalization effects. The other initiatives are not expected to cannibalize Hammer Jack's current business.
- Reaction from competitors: Will an initiative generate a negative competitive response?
 - These initiatives do not directly infringe upon competitors' businesses. While they may be copied by competitors later, Hammer Jack will have at least a short-term "leader" advantage.

Taking these factors into consideration would suggest that Hammer Jack should implement at least three or more of the initiatives. Since they are generally comparable in terms of ease and speed of implementation, profit contribution should drive the order of prioritization: longer hours,

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

financing and delivery (or project packages if the delivery equipment will neutralize the \$1 million in extra operating profit in the near term). The new services should be marketed especially to Do-It-Yourself customers, with some attention to Maintenance customers as appropriate. Other initiatives can be pursued as soon as management and company resources allow.

At some point during the interview, be sure to bring your analysis to a conclusion – summarize your findings, take a position and make an actionable recommendation.



Mercer - Star Corporation

To: Joe/Jane Consultant
From: Steve Fernandez, VP
Re: Brain Zone

As you know, Star Corporation, a large diversified manufacturer of consumer electronic goods, is a long-time client of the firm. Star has recently come upon the opportunity to invest in a company, Brain Zone, a video game developer.

While Star is a major player in the consumer electronics area, the CEO has admitted that she has only a very basic understanding of the dynamics and structure of the video game industry. As such, she has asked Mercer to offer a preliminary recommendation on the opportunity, so that we can determine if it is worth further investigation and case work.

She would like a response in this afternoon's meeting. I need you to briefly determine, structure and investigate the primary issues so that we can offer the client a recommendation.

I apologize that I was unable to speak to you in person about this, but I'll come by your office at 1:45 and you can brief me on your recommendation on the way to the client meeting.

Now is your opportunity to ask some questions for clarification or general background.

In the context of this case, you may have the opportunity to ask the VP, or you may just have 5 minutes to scan Brain Zone's and/or Star Corporation's websites. Make a quick list of clarifying questions that you would like to ask.

But beware! Not all of the possible questions we provide are necessarily good questions to ask. Remember that at this stage in the interview you are trying to accomplish two things:

- Make sure you understand the case, company and background (without launching into specifics)
- Make sure the interviewer did not intentionally leave out an important piece of big-picture information.

You are allowed to ask no more than four of the following questions:

- Who is Brain Zone's target customer?
- How long has Brain Zone been a player in the video game industry?
- What type of product does Brain Zone manufacture?
- Who are Brain Zone's current customers?
- What is Star Corporation's reason for wanting/considering the investment?
- What are the primary distribution channels for Brain Zone's products?
- Have Brain Zone's products been successful in the marketplace?
- Who are Brain Zone's competitors?
- What do analysts think of Brain Zone?
- Is Brain Zone's work force unionized?
- What is Brain Zone's likely reaction to an investment and/or acquisition by Star?

What type of product does Brain Zone manufacture?

Brain Zone develops 'edutainment' software. The company's products are praised by the marketplace as being both fun and educational. What differentiates Brain Zone from a traditional educational software developer is the company's focus on developing products that involve players in a series of challenges and fantasy worlds requiring problem solving capabilities.

Have Brain Zone's products been successful in the marketplace?

Brain Zone has developed three games. The first two were not successful. However, initial customer response to Brain Zone's latest products has been positive, although the customer sample selected to test the prototype might not be representative of the mass market.

Is Brain Zone's work force unionized?

No. Brain Zone is a small, high-tech start up in which all of its employees work at will and without collective organization.

What is Brain Zone's likely reaction to an investment and/or acquisition by Star?

While Brain Zone will likely want to hang on to its entrepreneurial spirit and culture, it will benefit greatly from Star's deep pockets. Most of the more successful software development companies are divisions of big companies with deep pockets. Financing muscle is a big plus for software development, which requires a great deal of investment prior to any resulting revenues. For this reason, Brain Zone would probably be a very willing acquisition target and/or 'investee.'

Now it's time to determine how you will start structuring the case. Spend a few minutes outlining the general areas you would like to investigate. This may be in the format of a framework you have studied or one which you develop specifically to address the issues you find relevant to the case.

Let your framework be driven more by the issues relevant to this case than by any particular framework you may have studied; beware of the common folly of inappropriately forcing a framework on a case.

It is important that you determine this structure (including the questions you would ask) before continuing because it will help you:

- Practice the most important part of the case interview: structuring your analysis
- Prioritize and make the best use of your time

How large is this industry?

This one is for you to answer. Spend a few minutes thinking through the assumptions and math that will provide you with the total amount of money spent on home entertainment video games in the United States each year.

\$10Billion?

Your answer is within reasonable estimates.

How quickly is the industry growing?

The home entertainment video games market is growing robustly. Retail sales of video game hardware and software in the US increased 22% in 1998 over the prior year. The growth has persisted in the first quarter of 1999 (most recent information available) with an 18% increase in entertainment software sales over the prior year first quarter.

How significant do you think the growth is in this market? If the market is growing at 20% per year, how many years will it take to double in size?

Options

- Approximately 2 years
- Approximately 3 years
- Approximately 4 years
- Approximately 5 years
- Don't know

Answer

Approximately 4 years. It is important to have a grasp on the quick calculations required to help you get an idea for scale in a case or a "real-life" consulting situation.

What are the key customer segments in the video game market?

Demographically, the primary customers for console based video games consist of young males between the ages of 10-22. On the other hand, females represent more of the PC/Mac recreation software users, and 42% of educational software users.

Another interesting way to segment the video game customer market is to group customers by their needs—the reason for making a video game purchase. The three main customer groups based on this segmentation are:

1. Fast 'Twitchers': are buyers who purchase video games purely for entertainment purposes. These players are action addicts, looking for games that provide them with a great playing experience. Since the reality of the playing experience and the graphic interface is most important to these customers, the speed of the underlying machinery that actually runs the games is critical in their purchase decision making process.
2. Slow 'Twitchers': are buyers for whom the action element of a game does not play a critical role in their purchase decision making process. These players are more interested in games such as Solitaire or Minesweeper that are more individual in nature. Brand and recommendations have a big impact on the purchases made by this group.
3. Edutainers: are the buyers who purchase video games that have an 'educational' twist to them. Games such as Myst and Sim City fall into this category. These buyers might be making the purchase for themselves or others (e.g. their children).

Which customer segment is most profitable?

In order to determine which segment is most attractive, we first need to assess the relative profitability of each segment. In order to do that, we will need each of the following factors.

- Size of Segment
- Revenue/Customer
- Profit Margin/Customer Segment

Using the following data, calculate the profitability of each segment. Assume the total market consists of 25 million individuals.

	FAST TWITCHERS	SLOW TWITCHERS	EDUTAINERS
Segment Size (% of total)	50%	30%	20%
Segment Revenue (\$BB)	2.25	1.50	1.25
Profit Margin (%)	30%	20%	30%

	FAST TWITCHERS	SLOW TWITCHERS	EDUTAINERS
Segment Size (MM people)	12.5	7.5	5
Revenue/Customer	180	200	250
Total Segment Profits (\$BB)	0.675	0.3	0.375

What are the trends impacting future growth in this industry?

There are three major trends impacting the video game industry currently:

Installed Base

The rapidly growth of next-generation consoles and the continued penetration of PCs in the home contribute to a solid and growing installed base for home entertainment video games.

Sub-\$1000 PCs

In addition to the impact on the installed base, the rapid growth of sub-\$1000 PCs has introduced a new type of customer to the entertainment video games market. Many purchasers of sub-\$1000 PCs would not have been potential video game customers if they had not had the opportunity to buy a cheap PC.

Internet and Network Gaming Sites

Another major trend impacting the video game market is the Internet and the rise of gaming sites available on the World Wide Web. These sites allow players to download games onto their desktops either free or for a small fee. While the speed of current modem connections make this process slow and time consuming, improvements in technology will do away with this hurdle.

Network gaming allows players to play against each other via networks. So for instance, co-workers in an office could play PC games against each other during breaks over the company network.

What is the nature of Brain Zone's successful product?

Brain Zone's successful product is a game called Survival. The protagonist/player travels around the world with limited means (food, arms, supplies) and faces various challenges. As the protagonist tries to overcome the challenges (hurricanes, guerilla attacks, deserts, etc.) he can gain access to more supplies if he is able to identify certain geographical features, including cities (access to medical supplies and food), rivers (drinking water), mountains (evasion of enemies) and others. The player must know the geographical feature's location and name to access its resources.

What platforms do Brain Zone's games run on?

Brain Zone has traditionally developed games for the Sony Playstation. However, its contract with Sony will soon be expiring. As such, the company needs to make a decision about whether to renew its contract with Sony or develop games for a different platform (either a different console manufacturer or for the PC). This decision will clearly involve an understanding of which platform will be the leader in the market going forward.

Which platform will be the winning platform in the future?

The video game industry has traditionally been dominated by console based game units. These machines generally cost between \$150-\$250 and are usually hooked up to a TV in the consumers home. The second product category in the video game market is PC based video games. This category consists of software that has been developed for home computers. While some of this software is bundled into the computer and is available for immediate use, the more interesting products are available for sale at most large computer retailers. The current market share of console based video games (machines that can be attached to the TV) is 66% of the total video game market. With \$1.8 BB in sales in 1997, PC based software owns the rest of the market. These relative market shares are projected to level out over the next five years with each type of game system owning about 50% of the market.

Who are Brain Zone's current customers?

As its latest product is only in the prototyping stage, the company does not currently have a solid customer base. Due to its contract with Sony Playstation, however, the game will be distributed under the Sony label and marketed as such to Sony Playstation owners.

Steve, the VP, has arrived and is ready to go to the meeting. On the way, he expects you to brief him on your preliminary findings and specifically whether or not you think Star should invest in Brain Zone. Take a stand (either invest in Brain Zone or do not) and make a brief list of your supporting reasons. Then click a link below to reveal the "answers" (insofar as any really exist!), our methodology for cracking the case and feedback on your performance.

Recommendation

Do NOT invest in Brain Zone.

Although much of the information in the case supports a decision to enter the video game market...

- The video game market is large and growing rapidly.
- Two key developments in the industry make this a good time to enter—new platform technologies (a move toward PCs and away from proprietary play stations) and new distribution channels (away from software stores to catalogs and online purchases).
- The high development costs associated with participating in this industry will keep many smaller players out or at least render them unprofitable. Star Corporation's deep pockets will be a tremendous asset.

...it is unlikely that Brain Zone is the best way to do so.

- The edutainment segment is the least attractive in terms of size and profitability.
- Brain Zone has only one successful game to date and even the popularity of that game is not proven on a mass-market level.
- Brain Zone's games are console-based only. Although the company could change to PC-based design upon the expiration of its contract with Sony, it is certainly not a leader in PC-based video games, which is the segment with the most aggressive growth estimates.
- Brain Zone does not have any proven ability in Internet-based games, network games, or delivery of software via the Internet, all of which are considered the future of the industry.

(This interactive online case has a time limit. The above questions represent what I was able to ask in the allowed time, and do not necessarily represent the questions Mercer thinks best ones to be asked.)

McKinsey - Magna Health

Our client is Magna Health, a health care company in the Midwest. It both insures patients and provides health care services. Employers pay a fixed premium to Magna for each of their employees in return for which Magna covers all necessary health services of the employee (ranging from physician care, and medications to hospitalization).

Magna currently has 300,000 patients enrolled in its plan. It has 300 salaried physician employees who provide a broad range of services to patients in 6 centers. These physicians represent a wide range of specialty areas, but not all areas. When a patient needs medical treatment in a specialty area not covered by a Magna physician, they are referred outside of the Magna network for care, and Magna pays all referral costs on a fee-for-service basis. Magna does not own any hospitals itself, instead contracting services from several local hospitals.

Magna's CEO has retained McKinsey to help determine what is causing the declining profitability and how Magna might fix it. What key areas would you want to explore in order to understand Magna's decline in profitability?

Suggested Response

Some possible areas are given below. Great job if you identified several of these and perhaps some others.

- Magna's revenues
 - Price paid by employer for employee health coverage.
 - Number of employees covered by Magna.
- Magna's costs (or fixed and variable costs)
 - Magna's main cost components consist of administrative (non-medical) and medical costs (e.g. hospital, drugs, outpatient care)
 - Outpatient costs can be split into internal physician costs versus external referral costs
 - Magna's patient base demographics/overall risk profile which may affect medical costs

Question

The team discovers that the demographics of Magna's subscribers have changed significantly in the past 5 years, from majority industrial workers/laborers to majority office employees. Knowing this, are there any specific areas you would investigate first?

Suggested Response

We are looking for a few responses, similar to the ones below:

- Claim costs, as the change in the subscriber base will change the profile of diseases (e.g., more heart disease/stress and less work related injury)
- External referral costs, due to the change in the disease profile for which they have in-house competency

Question

After reviewing the basics of Magna's business, your team believes that one of the root causes of Magna's financial problems is how it manages medical costs, particularly the cost of referrals to specialists outside of its physician network. Your team has gathered the following information on Magna and its primary competitor, Sunshine HMO:

	Number of patients	Average cost of referral(per member per month)
Magna Health	300,000	\$20
Sunshine HMO	500,000	\$15

What are the most likely reasons that the average cost of referral at Magna is higher than at Sunshine? (At this point you should feel free to offer hypotheses, and you could ask your interviewer questions to clarify the information)

Suggested Response

Although there are a number of possible responses, you might have the following suggestions:

- Referral pricing: Magna might be paying more than Sunshine for specialist services (e.g. its outside contracts with oncologists might be at higher rates than Sunshine's contracts).
- Number of referrals: Magna's physicians might have different practice patterns than Sunshine physicians, i.e. they may be less comfortable treating heart disease patients or have different training/protocols.
- Mix of specialties: Magna's mix of specialties that requires referrals (cardiology and neurosurgery) are probably more expensive specialties (than cardiology and psychiatry, Sunshine's referral specialties).
- Mix of patients: Magna has sicker or older (>65) patients (individuals over 65 are more likely to need medical care in the specialty areas outside of Magna's network, particularly cardiology).

Question

What analyses would you do if the things you suggest were contributing to this problem? You might take the following approach, where we've outlined different areas of analysis:

Suggested Response

- Referral pricing:
 - Gain data on prices currently being paid by Magna for a sample of common specialties
 - Gain similar data for a competitor if possible for an industry average (perhaps through interviews with non-Magna specialists)
- Number of referrals:

- Interview Magna physicians and non-Magna physicians to see if any obvious behavioral differences exist
- Consult industry publications on this issue
- Mix of specialties:
 - Check number of referrals by specialty for Magna and estimate similar for Sunshine
 - Interviews with external specialties used by Sunshine may help again here
- Mix of patients:
 - Compare demographic data for Magna and Sunshine: should be easy to obtain from Magna; a scan of the employee schemes covered by Sunshine should give a good general picture of their demographic profile
 - See if Magna's referral cost has increased in line with the change in demographics of the subscribers

Helpful Tip

In giving the answer, it's useful if you are clear about how the analysis you are proposing would help to answer the question posed.

Question

Magna's CEO has a hypothesis that Magna is paying too much in cardiology referral costs for its patient population. He asks the McKinsey team to look at Magna's cardiac patient population more closely and tell him how many referrals he should expect on an annual basis. Assume the following:

- Magna has 300,000 patients in any one year
- 20% of its patients are age 65 or older
- In the U.S., patients with serious heart disease visit specialists (cardiologists) on average of 5 times per year
- You should always feel free to ask your interviewer additional questions to help you with your response. In this case, you should recognize the need to know the prevalence rate of serious heart disease to complete this calculation. Once asked, your interviewer would provide you with the following information:
- The prevalence rate of serious heart disease in the 65+ population is 30%
- The prevalence rate of serious heart disease in the under age 65 population is 10%

Suggested Response

Based on the correct calculations, your response should be as follows: Magna should expect 210,000 cardiac referrals annually based on its patient population. You should have approached the calculations as follows to arrive at that answer:

- 300,000 total patients
- $20\% \times 300,000 = 60,000$ patients age 65+
- $18,000 \times 5 = 90,000$ referrals per year
- 240,000 Magna patients under the age of 65
- $240,000$ patients $\times 10\% = 24,000$ patients under age 65 with serious heart disease and $24,000 \times 5$ visits per year = 120,000 visits per year total
- $90,000 + 120,000$ visits per year = 210,000 total Magna patient external cardiology visits

Helpful Tip

While you may find that doing straightforward math problems in the context of an interview is a bit tougher, you can see that it is just a matter of breaking the problem down. We are looking for both your ability to set the analysis up properly and then to do the math in real time.

When the team tells Magna's CEO that based on Magna's patient population he should expect about 210,000 cardiology referrals a year he exclaims, "We currently pay for 300,000 annual cardiology referrals for our patient population!"

Question

Why might Magna's annual cardiology referrals be significantly higher than U.S. averages?

What would you do to try to verify if any of these were a key cause of this problem?

Suggested Response

There are a number of answers to these questions, and you are on the right track if your responses included some of the ones below:

- The prevalence rate of heart disease in Magna's patient population is higher than average. To see if this was a cause of the problem, McKinsey should audit the internal data on heart disease prevalence and compare it to US National data.
- Magna's primary care physicians are referring patients who do not have serious heart disease to specialists. The team should interview specialists to get their opinion, or follow through a sample of patients who were referred.
- Primary care physicians are not comfortable (e.g., they are poorly trained or inexperienced) treating cardiac patients, even those with minor problems; they want to avoid malpractice suits. McKinsey should interview Magna physicians and institute an external review.
- Magna doesn't have clear guidelines on when physicians should be referring patients to specialists (or if guidelines exist, physicians are not complying with them). The team should gain an expert opinion on the current guidelines to see if this was a key cause of the problem.
- There are no incentives or penalties to prevent physicians from referring patients with less serious problems to specialists. In order to verify this is a key cause of the problem, the team should review incentive schemes if they exist. They should also compare similar companies/situations (e.g. prescription control mechanisms, etc.).

Helpful Tip

We would not expect you to come up with all of these answers, but we hope some of your answers head in the same direction as ours. Yours may bring some additional insights. In either case, be sure that you can clearly explain how your reasons will bring you closer to the why the referrals might be higher.

Question

At this point in the study, you bump into Magna's Head of Health Services in the corridor. He is responsible for all matters related to the provision of services to subscribers, both inside and outside the Magna Network. He asks you if you have made any progress. How would you respond?

Suggested Response

The ability to come to a logical, defensible synthesis based on the information available at any point in an engagement is critical to the work we do. Even though we'd consider ourselves to be early in the overall project at this point in the case, we do want to be able to share our current perspective. One ideal answer would include the following points:

Findings

- We have investigated all the drivers of profit for Magna. Although there is likely to be room for improvement in a lot of areas, it seems the claims cost is a big area for improvement.
- Relative to the market and to competitors, Magna seems to have high claims cost per patient. Our initial indication is that there may be highest room for improvements in the cost of referrals outside the network.
- There are a number of reasons as to why this may be happening (list as in previous question).

Next Steps

- We are working to pin down the most significant reasons why Magna has high claims cost per patient.
- We are going to be looking into other areas such as reduction potential in other costs, as well as improvement potential in terms of premiums or other sources of revenue.

Helpful Tip

Think about the person you are talking with, and how best to communicate the findings you have come up with so far.

Question

After some additional investigation, your team decides that changing the behavior of Magna's primary care physicians has potential to reduce cardiac referral costs while maintaining high quality care. The team believes that introducing some sort of incentive plan for physicians might help reduce the referral rate. You propose the following pilot plan:

Suggested Response

Magna pays bonuses of \$100,000 per year to each of the 10 primary care physicians with the lowest cardiac referral rates consistent with good patient outcomes.

Magna increases overall fees paid to primary care physicians to handle more of their patients' basic cardiology needs. Overall fee increases would total \$1 million

How many fewer cardiology referrals will Magna need to have in order to recoup the cost of the pilot incentive plan? For simplicity's sake assume:

The cost of a cardiology referral is \$200

Magna currently has 300,000 cardiology referrals per year

If the incentive plan reduces cardiology referrals by 3.3% or 10,000 referrals, Magna will recoup the cost of the incentive plan. One potential approach to the calculation:

$\$1 \text{ million} + (10 * \$100,000) = \$2 \text{ million for incentive plan}$

$\$2 \text{ million} / \$200 = 10,000 \text{ referrals}$

$10,000 \text{ referrals} / 300,000 \text{ total referrals} = 3.3\% \text{ reduction would pay for incentive program}$

Question

Your team projects that the incentive plan has the potential to reduce referrals by 5% in its first year, and an additional 2% in its second year. If these projections are correct, how much referral cost could Magna save in total over the first two years of the incentive plan?

Suggested Response

Referral costs would be \$4.14 million lower in the second year. Over the two years Magna would save \$7.14 million. One potential approach to the calculation:

Year 1 Savings with Program

300,000 total referrals

5% reduction in referrals = 15,000 referrals

$15,000 * \$200 = \$3.0 \text{ million in savings in year 1}$

Year 2 Savings with Program

285,000 total referrals

2% reduction in referrals = 5,700 referrals

$5,700 * \$200 = \$1.14 \text{ million in savings}$

$\$3 + \$1.14 = \$4.14 \text{ million in savings}$

Therefore, total cumulative savings over the 2 years = Year 1 savings + Year 2 savings = $\$3.0\text{m} + \$4.14\text{m} = \$7.14\text{m}$.

Your team presents its physician incentive proposal to Magna's CEO. The CEO, in consultation with his Medical Director, agrees that this is feasible and says that they will pilot it for cardiac referrals.

At the end of the meeting the CEO says, "I like the work you've done, but it's not enough to address our current financial situation. Physicians are professionals who care deeply about patient care and I think there's a limit to how much cost we can expect to reduce utilizing financial incentives exclusively. Besides cardiac financial incentive programs, what other ideas should we consider to reduce the cost of Magna's specialist referrals?"

Question

Based on what we have discussed today, and any other ideas you might have, how would you respond to the CEO?

Suggested Response

This question is a good one for demonstrating creativity because there's a long list of possible ideas. You might give the following response:

- Pursue additional ways to change physician behavior
- Provide training on how to treat patients with minor or stable medical problems
- Define and clarify medical guidelines for referrals (e.g., establish a medical committee to define the difference between “serious” and “minor” heart disease)
- Institute peer review committee charged with approving a subset of referrals (e.g., those that are considered “high cost,”)
- Spend time investigating “outlier” physicians (i.e., those who seem to refer patients to specialists at much higher rates than others) to determine how widespread the referral problem is and whether simply focusing on a few physicians will dramatically reduce referral costs
- Determine whether Magna can reduce referral costs in the other medical areas where it does not have specialists (i.e. neurosurgery)
- Look at the contracts Magna has for specialist services to determine if it is paying too much relative to competitors
- Consider whether bringing cardiology, neurosurgery, and oncology specialists in-house (i.e., within Magna) might reduce cost

Helpful Tip

You may have a slightly different list. Whatever your approach, we love to see candidates come at a problem in more than one way, but still address the issue as directly and practically as possible.

BCG - Additional Questions

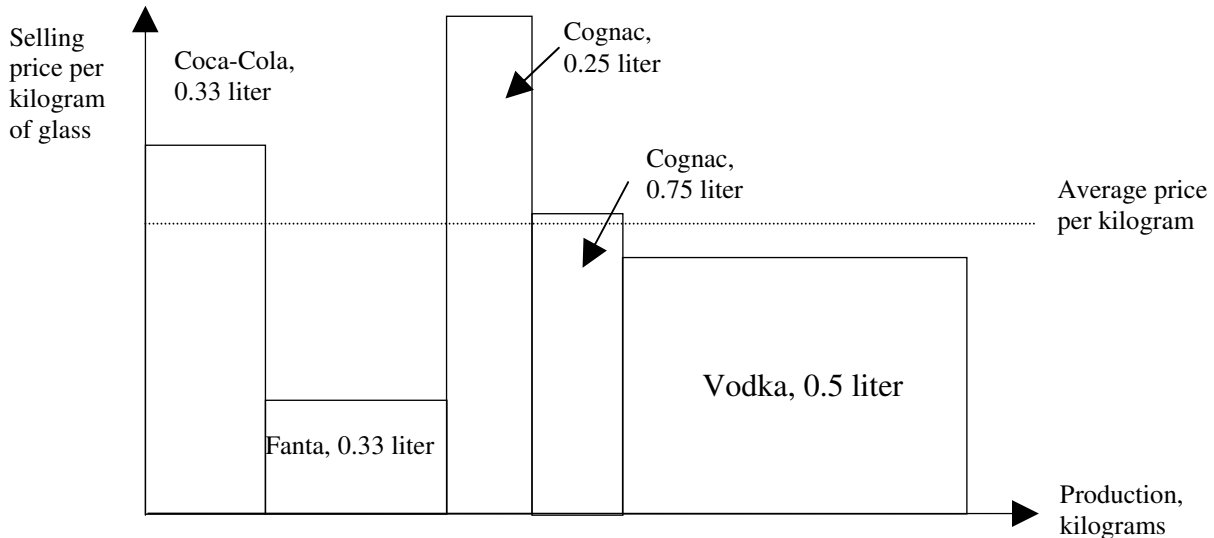
- A German luxury car manufacturer is interested in entering the sport-utility vehicle market (for example, Jeep Cherokee) after noticing that the market has grown dramatically worldwide in the past two years. How would you advise the manufacturer? What does it need to know before making an entry decision? If it chooses to enter, what might a viable strategy be?
- A North American manufacturer/retailer of high-end glassware experienced a dramatic decline in same-store sales at its retail outlets last year. How would you begin to assess the reasons for the decline? Using your analysis as a basis, what strategy would you recommend for the manufacturer?
- A large public utility formerly had a monopoly in the British electricity market. Now that the market has been deregulated, small power-generation companies have already captured a five percent share from the utility by offering to provide large businesses in the U.K. with their own in-house power-generation capabilities. The CEO of the utility wants to understand whether this trend will continue and how she can prevent further loss of share. How would you answer her question?
- A U.S.-based pharmaceutical company that focuses on discovering, developing, and selling drugs for the treatment of cancer has been experiencing flat growth and is interested in expanding into new businesses. In view of the growth and profitability of stand-alone cancer treatment centers in the U.S., the company is considering establishing and operating similar centers in China. This would be the company's first foray into the cancer treatment center business. How would you evaluate the attractiveness of the opportunity?
- The Swiss Ski Association has been petitioned by an international snowboarding club to permit snowboarding on the ski slopes within its jurisdiction. (Assume that the association currently forbids snowboarding on all Swiss ski slopes.) If the association is interested in maximizing profits, how should it respond to the petition? What factors would the answer depend upon?

Cases from interviews

These cases are based on debriefing on consulting interviews received from Goizueta students:

Bottling Cognac in Russia (Bain)

"A glass bottles manufacturer in Russia has come up with the following graph (see below). According to the graph, price per kilogram of 0.25 liter cognac bottle is much higher than price per kilogram of 0.75 liter cognac bottle. Based on this information, the manufacturer wants to switch one of its production lines from 0.75 liter bottles to 0.25 liter. The question is, why do you think it is not a good idea? There are no production constraints. There are no problems with selling: everything they produce they can sell. The weight of a bottle is proportionate to its volume."



This case tests one's understanding of economics, operations, and a little bit of common sense. Every word in the case is relevant to finding the solution.

What comes up immediately as the possible clue is "the weight of a bottle is proportionate to its volume." So, the 0.75 liter bottle weighs 3 times as much as a 0.25 liter bottle. If they are selling bottles in kilograms, I figured intuitively there is something to it, but could not tell it right away. To be able to do it you have to see the whole picture.

I decided to find out about the cost structure of the operation. I did not want to ask the interviewer this question directly as I felt he wants to test me on understanding the costs. So I asked him to describe the production process. Sand and some other ingredients are mixed together and melted in a furnace to form hot semi-liquid glass. The glass is then poured down cylinder-shaped channel. Down the channel it is cut into cylinders by special cutting machine. The hot glass cylinder is passed onto next step, where it is shaped as a bottle. The "arm" that shapes the glass holds it, while hot air is blown in to "bubble" the actual bottle. The "arm" then lets the ready bottle go.

After describing the production process he asked me what kind of process is it. I told it looks like non-stop continuous process. I asked him whether they are running 3 work shifts

irrespective of the type of bottle produced. Yes. He then asked me what do I think of the cost structure of such production. I replied that it probably is mainly fixed except for energy and materials costs. He confirmed, and told me to forget for now about energy and materials costs and treat the costs as fixed.

At this point my investigation was a little bit stalled. I asked for 1 minute time-out. I tried to visually imagine the production process. In my mind I saw this cylinder-like channel where the hot glass is poured I imagined the cutting machine making the cylinders that would become bottles. Time is up.

My next question was kind of intuitive: the cutting machine, does the rate at which it cuts hot glass change depending on what kind of bottle is produced? He was confused for a second. At first he said he doesn't know. He then thought for a moment and said that no, the rate doesn't change significantly (not in statistical terms). I developed it further: so, does it mean that the line with production capacity 1,000 of 0.25 liter bottles per hour would produce approximately the same amount of 0.75 liter bottles? Yes, it would.

I was ready to give him my version of solution. I said I believe the clue is in that they sell the bottles in kilograms rather than in units. Let's assume that the line is capable of producing 1,000 of 0.25 liter bottles per hour. Suppose that they can make 800 of 0.75 liter bottles per hour on the same line. Suppose price per kilogram of 0.25 liter bottle is \$0.40; price of 1 kilo of 0.75 liter is \$0.30. Assume the weight of 0.25 liter bottle is 1 kilo; then the weight of 0.75 would be 3 kilos (weight and volume are directly related). I came up with the income statement:

bottle:	<u>0.25 liter</u>	<u>0.75 liter</u>
production	1,000	800
price per kilo	\$0.40	\$0.30
weight of bottle	1 kilo	3 kilos
price per bottle	\$0.40	\$0.90
Revenues	\$400	\$720
less: costs	fixed	fixed

Profit	low	high

Therefore, it would be a bad idea to switch production line from making 0.75 liter bottle to 0.25 liter bottle. This was the right answer.

Commercial Gas Market Entry (Booz Allen Hamilton)

The client is a large, European oil and gas company, and is the largest gas producer in the world. The company has many assets and deep pockets. They currently operate over the whole gas value chain, from upstream to distribution. Their downstream assets include a large fleet of LNG trains, a substantial LNG maritime fleet, and a pipeline network. The client is looking for new opportunities in the Mediterranean markets of Spain, Italy, Greece and Turkey. As a consultant, what should you do to evaluate this opportunity?

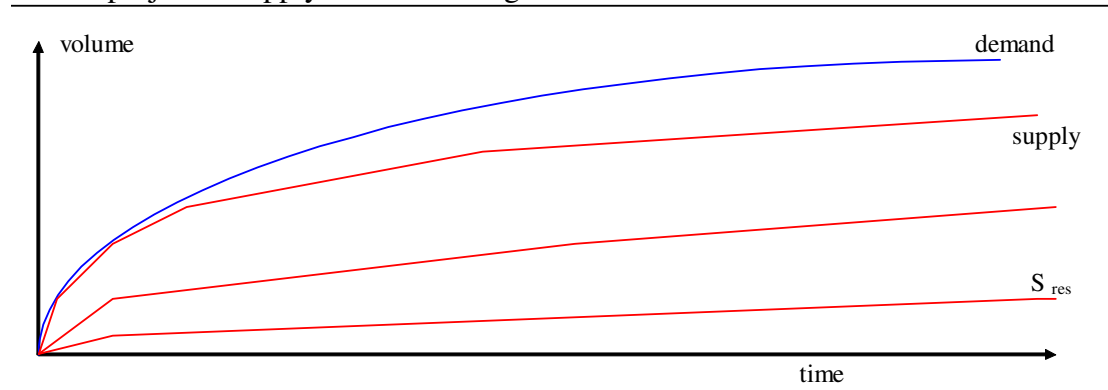
Solution:

This case is very broad and complex. The candidate should ask relevant clarifying questions to determine where the interviewer would like to go with this case. My approach was to set up the problem using the 3C's framework (company, competition, and customer), and list 6-8 key areas that I would want to examine under each category. Then interviewer quickly focused on the consumer side, and upon probing a little deeper, the candidate should determine that the market for gas can be segmented into four areas: power plants, industrial (manufacturers who require large amounts of power), commercial (small industrial and large users, e.g. hospitals, government buildings, etc.), and residential. For a reason, this list is described in decreasing volume of demand. The candidate should also realize that the order is generally related to profitability, since the high volume takers require lower infrastructure set-up costs. For example contrast the cost of installing a single large pipeline to one power station versus the cost of installing pipes for a small town. The next logical step is to find out what the demand for gas is expected to be in these new markets. The candidate would then be presented with a graph of supply and demand, thus (see over):

Demand = total projected demand for gas

Supply = total projected supply of gas, at current output

S_{res} = projected supply of residential gas



It should be apparent that there is a gap between supply and demand a short time hence. This represents unfulfilled capacity that our client could fill. When asked to quantify this gap, and the volume of spare capacity (and from there market revenues) the interviewer declined to pursue that line of thought. Be prepared to do this, however.

Having segmented the market, realizing that customers differ in terms of demand, and establishing that there will be a demand for gas in the near future, the third topic that must be covered is one of profitability? Can the client enter this market and be successful? As the interviewer was not interested in calculating revenues for this potential market, the candidate should focus on the cost side of the equation initially. From the background information we know that the client has significant assets and deep pockets. Reiterate this information and mention the additional cost of building new infrastructure to serve these markets. Again, it is much more expensive to serve a town of residential customers than to build a pipeline to serve a power plant. Also mention the value chain: upstream finding costs (has the required volume of gas been discovered?), refining of the product (fairly low cost), marketing and distribution. The candidate should be prepared to discuss the costs, and advantages that a major gas producer would have in these segments (economies of scale).

A brief discussion of gas pricing will then help you to decide whether this is a market in which the client can be profitable. Do not forget to make an implementation proposal and focus in on the high volume users as the initial target market. A discussion of how to market the product in this new geographical area would be a bonus. Finally, summarize what you have discovered, concisely, and show that you understand the strategic concepts raised by the case.

Credit Card Cost-Cutting

You're working on a project for a major credit card company in the call center. The call center handles customer service type calls (i.e. complaints and questions) as well as marketing type calls (i.e. requests for new product information, etc..) Your team is interested in some cost savings. What do you do?

Key Issues:

- Since this one focused on just cost, take a look at all of the different things that could drive costs, and then break them down.
- Labor (operators) and its productivity- major cost (How can they be more productive?)
- Look at different types of calls; can you route them, create specialists?
- Can you take a look at how long different types of calls are?
- What are some ways to shorten call lengths?
- How can you generate revenue with calls?
- How about waiting time?
- System improvement? How can this help or hurt costs?
- Possible look at service level and determine the optimal length of time for different types of calls.
- Staggering labor around the call patterns (density of calls per time of day)

Furniture Market Expansion

You are with a project team working for an office furniture manufacturer. The manufacturer wants you to think of ways in which it can expand its markets. What do you do?

Key Issues:

- Always ask for more information
- Frame your questions in the format of the case (i.e. How big is the manufacturer? Where do they shake out in the market? Who are their clients?, etc..)
- Think of current customers and expand with them (i.e. Who are the customers today? How do they rank in office furniture purchases (by size, age, location, etc.. of company)
- Identify the optimal customer today and determine which companies will move in that direction in the future.
- Think of who may be the optimal customer of the future.
- Think of different ways to segment the market for this problem (i.e. What types of industries require high furniture use and replacement?)
- Mention companies strengths and weaknesses (what are they doing well, what are they doing poorly)

Laundry Profits Dwindling

A laundry service company provides linen washing services for high-end restaurants, mostly cleaning linen tablecloths and napkins. The company has a fleet of trucks that pick napkins up and delivers them at regular intervals to each restaurant. After a period of rapid growth, the company has had increasing revenues, but declining profits over the past two years. What is the problem?

Key Issues:

- Company has centralized cleaning
- Each truck takes a week-long round-trip of delivery and pickup
- Washers and dryers are of normal size (no real economies of scale in processing)
- As revenues have grown, customers are more distant, more expensive to service.
- Utilization of space in the trucks (some are about 50% full, recent w/ the more distant customers)
- Decentralization would reduce the number of trucks needed because each truck could cover more customers because they are closer together.
- This decentralization would also enable better truck utilization.
- Cost cutting/competition is not the reason for reduced profitability
- Restaurants are mostly independent operations - no real buyer power
- There is competition, but account turnover is low
- Small sales force that calls on restaurants
- Represent by graphs trading off: avg dist driven to a customer/profitability and # of locations/profitability.

Kool Aid Global Expansion

Your client, a US based manufacturer of a powdered drink, similar to Kool Aid, wants to expand into Europe. You are tasked with determining how they will accomplish this. What are some of the key things you will need to know?

{ Kool Aid is a flavored powder that, when mixed with water, creates a sweet drink }

Key Issues:

- Ask Why do they want to expand? Why Europe over Asia or Latin America?

Internal

- Firm's competence/strength
- Capacity
- Existing products/plants/distribution channels in Europe
- Relationships in Europe

External

- Demand in Europe for this type of product
 - Differences in local culture/customs
 - Need for custom package/branding by country
 - Can we make the product to their specifications in our current facilities?
- How would you explore the European market?
 - Use our (consulting firm's) resources in Europe
 - Hire local consulting/consumer research firm
 - Contract retailers, distributors and manufacturers of related products
 - Market test/focus group
- Competitive landscape
 - Retaliation
 - Can we have a competitive advantage such as price or differentiation
- Does our strength match up to the needs in Europe? (yes)
- Shelf space
- Distribution
 - Export from US (Trade barriers?)
 - Use own distribution force
 - Use distributor/consolidator
 - Partner with a firm selling related products (parallel)
 - License product to local manufacturer and use their channels
 - Joint venture with local manufacturer
- Need for a local plant, if so where do you put it?
 - Economic incentives
 - Regulatory climate
 - Proximity of suppliers
 - Consider distribution
- Unusual local conditions (will water supply impact quality of our product?)

Phone Business Opportunity

You are working for a major phone company (one of the big three). They currently make new phone equipment, which they sell to companies and individuals. They are thinking of getting into the second-hand equipment business (i.e. selling used phone equipment). Is this a good idea?

Key Issues:

- What is this market about? (i.e. Who are the players, who are the customers, how big is it, how profitable, etc..)
- Next, get more pointed in questioning and ideas. (i.e. How do they go about getting the used equipment, are there costs involved, what about quality issues, how old does equipment have to be before it becomes obsolete, etc..)
- Does the company already do some of the required tasks? (i.e. testing equipment, packaging equipment, delivery and setup of equipment, etc..)
- Next, lead into economies of scale, or will it need to set up entirely new facilities and systems?(costs)
- In general, perform a cost-benefit analysis.

Airplane New Competition

You are consulting to a CEO of an airplane manufacturer. In the last couple of years, you have gone from being number one in market share to number two. In addition, another company has announced that it will be entering the business and is presently tooling up its plant. As a consultant, what are the concerns your client might face, what additional information might you want to find out, and what recommendations would you have?

Key Issues:

- What is the condition of the airplane manufacturing industry?
- Why has the firm lost market share?
- How do you prevent the new entrant from stealing market share?
- **INDUSTRY:** Demand is a function of travel among two classes, business and leisure. Business travel increases as a result of globalization. Leisure travel increases with growth of middle and upper classes. Leisure travelers are very price sensitive.
- **MARKET SHARE:** It turns out the competitor's plane is cheaper to operate because it is more fuel efficient. The consultant should ask as a strategic question whether the firm is interested in the manufacture of more fuel efficient planes. The answer would depend on the future of oil prices. Instead, it might be better to compete on the basis of price, safety, and service.
- **PREVENTING NEW ENTRANTS:** Barriers to entry may include preemptive long-term contracts, economies of scale, knowledge based economies. Purchasers are concerned with safety, to highlighted the firm's proven safety record would be appropriate.

Audio-cassette Poor Sales

Your client is the manufacturer of audio cassettes. They have hired you to figure out why they've been experiencing an alarmingly poor sales year. What's the real problem and what are you going to do about it?

Key Issues:

- **MARKET CONDITIONS:** Mature market, 5-6, major players, market share has increased from 33% to 44%. Client offers a full range of audio cassettes – from low bias to high bias/metal. The firm historically targeted two consumer groups – older middle income enthusiasts and high school rock 'n roll types. Recently, the client has been losing younger target market customers. The client has traditionally managed its relationship with retailers well. However, the firm has recently lost several major accounts because their product isn't selling.
- **THE COMPANY:** The firm has been losing sales reps, yet loyal reps claim that sales are at record high levels for them this year. The company is using the most sophisticated and quality driven cassette manufacturing techniques.
- The combined market characteristics, recent symptoms and sales decline and increased market share suggest that competitors are abandoning this market, likely due to a new and better substitute technology (compact laser disc, for example).
- Still, the client's historically flat market share suggests brand loyal customers, probably in the older segment of the market. That segment might be less likely to switch to new technology in the short run.
- Long-term, the client needs to consider whether or not they want to stay in this market. Given their commitment to technology, it makes sense that they would consider introducing new products (i.e., laser discs).

Agricultural-equipment Profitability

Your client is a large agricultural equipment manufacturer. Their primary product line, farming tractors, is losing money. What questions would you ask of your client to help them?

Sample Question and Answers:

- How many competitors are in the market?
 - Two direct competitors.
- What is your market share compared to those competitors?
 - Firm: 40 percent share, Competitor A: 30%, Competitor B: 15%; the remaining share is split among small players.
- What are the trends in market share?
 - Five years ago, the firm had 60%, the others were at 15 and 10 percent.
- How is your product priced relative to your competitors?
 - It is higher. Always has been.
- Are the products the same?
 - Essentially, yes, they all have the same basic features. Of course, tractors are not commodity items and a few differences do exist.)
- What are the differences that allow you to charge a premium for your product?
 - Strong reputation for quality. Product last longer and needs less maintenance.
- Are sales revenues down? Are sales quantities down?
 - Yes to both.
- Is the price down? Are costs the same?
 - No, both costs and price are up.
- Have fixed costs increased?
 - No, but variable costs have skyrocketed, though. I don't know why.
- Do you manufacture your tractor or just assemble it?
 - Primarily an assembly.
- So finished part prices have gone up?
 - Yes.
- Is your supplier paying more for raw materials?
 - No
- Have you changed suppliers?
 - No
- Why are your suppliers charging you more the same products?
 - They're not. The prices have increased as a result of our product improvement efforts. We've tightened tolerances and improved the durability of our component parts.
- Why did you make these improvements?
 - Because we want to sell the best tractors in the world.
- Are your customers willing to pay for these products?
 - Huh.

It turns out that prices have been raised to cover the cost of these improvements, but customers do not value these improvements unless they are free, so sales are down. The client needs to incorporate a cost/benefit analysis into its product improvement process.

Retail Competition

Your client is the largest discount retailer in Canada, with 500 stores spread throughout the country. Let's call it "CanadaCo." For several years running, CanadaCo has surpassed the second largest Canadian retailer (300 stores) in both relative market share and profitability. The largest discount retailer in the United States, "USCo," however, has just bought out CanadaCo's competition and is planning to convert all 300 stores into USCo stores. The CEO of CanadaCo is quite perturbed by this turn of events, and asks you the following questions: "Should I be worried? How should I react?" How would you advise the CEO?

Some Questions and Answers:

- Well, before I can advise the CEO I need some more information about the situation. First of all, I'm not sure I understand what a "discount retailer" is!
 - A discount retailer sells a large variety of consumer goods at discounted prices, generally carrying everything from housewares to appliances to clothing. Kmart, Woolworth, and Wal-Mart are prime examples in the U.S.
- Oh, I see. Then I think it makes sense to structure the problem this way: First, let's understand the competition in the Canadian market and how CanadaCo has become the market leader. Then, let's look at the U.S. to understand how USCo has achieved its position. At the end, we can merge the two discussions to understand whether USCo's strength in the U.S. is transferable to the Canadian market.
 - That sounds fine. Let's start, then, with the Canadian discount retail market. What would you like to know?
- Are CanadaCo's 500 stores close to the competition's 300 stores, or do they serve different geographic areas?
 - The stores are located in similar geographic regions. In fact, you might even see a CanadaCo store on one corner, and the competition on the very next corner.
- Do CanadaCo and the competition sell a similar product mix?
 - Yes. CanadaCo's stores tend to have a wider variety of brand names, but, by and large, the product mix is similar.
- Are CanadaCo's prices significantly lower than competition's?
 - No. For certain items CanadaCo is less expensive, and for others the competition is less expensive, but the average price level is similar.
- Is CanadaCo more profitable just because it has more stores, or does it have higher profits per store?
 - It actually has higher profits than the competition on a per-store basis.
- Well, higher profits could be the result of lower costs or higher revenues. Are the higher per-store profits due to lower costs than the competition's or the result of higher per-store sales?
 - CanadaCo's cost structure isn't any lower than the competition's. Its higher per-store profits are due to higher per-store sales.
- Is that because it has bigger stores?
 - No. CanadaCo's average store size is approximately the same as that of the competition.
- If they're selling similar products at similar prices in similar-sized stores in similar locations, why are CanadaCo's per-store sales higher than the competition's?
 - It's your job to figure that out!

- Is CanadaCo better managed than the competition?
 - I don't know that CanadaCo as a company is necessarily better managed, but I can tell you that its management model for individual stores is significantly different.
- How so?
 - The competitor's stores are centrally owned by the company, while CanadaCo uses a franchise model in which each individual store is owned and managed by a franchisee who has invested in the store and retains part of the profit.
- In that case, I would guess that the CanadaCo stores are probably better managed, since the individual store owners have a greater incentive to maximize profit.
 - You are exactly right. It turns out that CanadaCo's higher sales are due primarily to a significantly higher level of customer service. The stores are cleaner, more attractive, better stocked, and so on. The company discovered this through a series of customer surveys it administered last year. I think you've sufficiently covered the Canadian market---let's move now to a discussion of the U.S. market.
- How many stores does USCo own and how many does the second largest discount retailer own in the U.S.?
 - USCo owns 4,000 stores and the second largest competitor owns approximately 1,000 stores.
- Are USCo stores bigger than those of the typical discount retailer in the U.S.?
 - Yes. USCo stores average 200,000 square feet, whereas the typical discount retail store is approximately 100,000 square feet.
- Those numbers suggest USCo should be selling roughly eight times the volume of the nearest U.S. competitor!
 - Close. USCo's sales are approximately \$5 billion, whereas the nearest competitor sells about \$1 billion worth of merchandise.
- I would think that sales of that size give USCo significant clout with suppliers. Does it have a lower cost of goods than the competition?
 - In fact, its cost of goods is approximately 15 percent less than that of the competition.
- So it probably has lower prices.
 - Right again. Its prices are on average about 10 percent lower than those of the competition.
- So it seems that USCo has been so successful primarily because it has lower prices than its competitors.
 - That's partly right. Its success probably also has something to do with a larger selection of products, given the larger average store size.
- How did USCo get so big compared with the competition?
 - It started by building superstores in rural markets served mainly by mom & pop stores and small discount retailers. It bet that people would be willing to buy from it, and they were right. As it grew and developed more clout with suppliers, it began to buy out other discount retailers and convert their stores to the USCo format.
- So whenever USCo buys out a competing store it also physically expand its?
 - Not necessarily. Sometimes it does, but when I said it converted it to the USCo format, I meant that it carries the same brands at prices that are on average 10 percent lower than the competition's.

- What criteria does USCo use in deciding whether it should physically expand a store it's just bought out?
 - It depends on a lot of factors, such as the size of the existing store, local market competition, local real estate costs, and so on, but I don't think we need to go into that here.
- Well, I thought it might be relevant in terms of predicting what it will do with the 300 stores that it bought in Canada.
 - Let's just assume that it doesn't plan to expand the Canadian stores beyond their current size.
- OK. I think I've learned enough about USCo. I'd like to ask a few questions about USCo's ability to succeed in the Canadian market. Does USCo have a strong brand name in Canada?
 - No. Although members of the Canadian business community are certainly familiar with the company because of its U.S. success, the Canadian consumer is basically unaware of USCo's existence.
- Does CanadaCo carry products similar to USCo's, or does the Canadian consumer expect different products and brands than the U.S. discount retail consumer?
 - The two companies carry similar products, although the CanadaCo stores lean more heavily toward Canadian suppliers.
- How much volume does CanadaCo actually sell?
 - About \$750 million worth of goods annually.
- Is there any reason to think that the costs of doing business for USCo will be higher in the Canadian market?
 - Can you be more specific?
- I mean, for example, are labor or leasing costs higher in Canada than in the U.S.?
 - Canada does have significantly higher labor costs, and I'm not sure about the costs of leasing space. But what are you driving at?
- I was thinking that if there's a higher cost of doing business in Canada, perhaps USCo will have to charge higher prices than it does in the U.S. to cover its costs.
 - That's probably true, but remember, CanadaCo must also cope with the same high labor costs. Can you think of additional costs incurred by USCo 's Canada operations that would not be incurred by CanadaCo?
- USCo might incur higher distribution costs than CanadaCo, since it will have to ship product from its U.S. warehouses up to Canada.
 - You are partially right. CanadaCo is advantaged in distribution costs, since its network spans less geographic area and it gets more product from Canadian suppliers. However, since CanadaCo continues to get a good deal of product from the U.S., the actual advantage to CanadaCo is not great---only about 2 percent in terms of overall costs.
- All this suggests that USCo will be able to retain a significant price advantage over CanadaCo's stores: if not 10 percent, then at least 7-8 percent.
 - I would agree with that conclusion.
- Then I would tell the CEO the following: In the near term, you might be safe. Your stores have a much stronger brand name in Canada than those of USCo, and seem to be well managed. However, as consumers get used to seeing prices that are consistently 7-8 percent less at USCo, they will realize that shopping at USCo means significant savings over the course of the year. Although some consumers will remain loyal out of habit or because of

your high level of service, it is reasonable to expect the "discount" shopper to shop where prices are lowest. Moreover, over time your "brand-name" advantage will erode as USCo becomes more familiar to Canadian consumers. You certainly have to worry about losing significant share to USCo stores in the long term. You should probably do something about it now, before it's too late.

- Can you suggest possible strategies for CanadaCo?
- Maybe it can find ways to cut costs and make the organization more efficient, so it can keep prices low even if its cost of goods is higher.
 - Anything else?
- It might consider instituting something like a "frequent shopper" program, where consumers accumulate points that entitle them to future discounts on merchandise.
 - What might be a potential problem with that?
- Well, it might not be that cost-effective, since it would be rewarding a significant number of shoppers who would have continued to shop with it anyway.
 - Any other suggestions?
- It might want to prepare a marketing or advertising campaign that highlights its high level of service. It might even institute a "CanadaCo Service Guarantee" that surpasses any guarantees offered by USCo.
 - Assuming the only way to keep customers is through competitive pricing, is there anything CanadaCo can do to appear competitive to the consumer?
- It might want to consider offering fewer product lines, so that it can consolidate its buying power and negotiate prices with suppliers that are competitive with USCo's. It might lose some customers who want the variety of product that USCo has, but be able to retain the customer who is buying a limited array of items and is just looking for the best price.
 - All of your suggestions are interesting, and you would want to analyze the advantages and disadvantages of each in more detail before making any recommendations to the CEO.

Fertilizer Factory (Bain)

Note: This was a more complex case that involved risk profile analysis and data-based market-segment targeting...however, it has been reconstructed from a foggy recollection and much of the detail has been lost in the sands of time :-)

Interviewer

Your client is a small, family-owned fertilizer company. The R&D department at this company has developed a new product technology. Using the new product instead of the normal fertilizer can increase the yield by 10%. 25% of the revenues come from the special/ premium fertilizer that the client sells to a private label. The special fertilizer costs \$200 to produce and is sold at \$500. What are the profits from the private label, given that total revenues are \$1B?

Candidate

Profit = Revenues – Costs = (Price – Per Unit Cost) x Units Produced

Sold to private label, revenues = 25% of \$1B = \$250 M

Since price is \$500, quantity = \$250 M/ \$500 = 0.5 M tons

Therefore profits = 300 x 0.5 M = \$150 M

Interviewer

On average, the farmers get 135 bushels per year per acre, and sell the product at \$2 per bushel. To obtain this yield, they use 1/3 ton of basic fertilizer per year per acre. How will you price the new product?

Candidate

With basic fertilizer, revenues = 135 x \$2 = \$270/year/acre

Cost of fertilizer = 1/3 x 160 = 53¹/₃/year/acre

Revenue with new product = 10% more = 297 ~ \$300/year/acre

This is \$30 more than that with basic fertilizer.

Since \$30 is realized per acre and an acre uses only 1/3 kg, per kg benefits realized = \$90

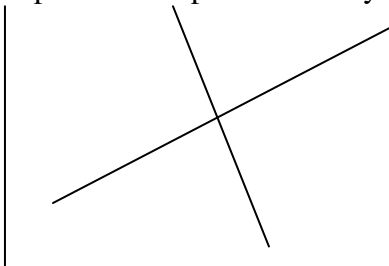
Thus, the product can be priced anywhere between \$160 and \$250.

Interviewer

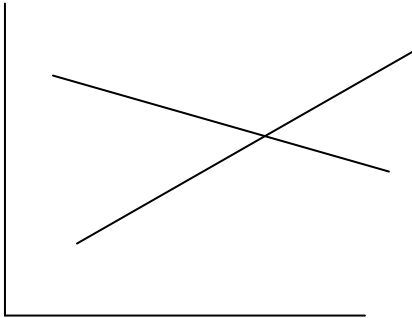
How much more will a farmer with a 75 acre farm have to pay more for the new product than for the standard present fertilizer?

Candidate

That would depend on the exact price of the new product. And the price of the new product will depend on the price elasticity of demand. If demand is elastic, most of the economic gains



will be passed on to the consumer. On the other hand, if we find that the demand is relatively inelastic



then the manufacturer can keep the bulk of the benefit.

Interviewer

So, tell me what price you'd suggest. Elasticity information is not available.

Candidate

I would probably price the product at \$200/kg. Thus

per acre premium = $40/3 = 13\frac{1}{3}$

For a 75 acre plot,

Old fertilizer = $160 \times 75 \times 1/3 = 4000$

New fertilizer = $200 \times 75 \times 1/3 = 5000$

The farmer will have to pay \$1000 more

Helpless Helmets (Bain)

Mock interview with Derek Robinson

Interviewer

Your client is a manufacturer of bike helmets. It sells to retailers who sell to the end-consumers. The business has been stagnant for a while. The industry as a whole is neither growing nor declining, either. The company is profitable, but the CEO wants more. You need to explore:
Domestic vs. International expansion
Top-line growth vs. Profits

Candidate

I would like to consider the following simple growth strategies:

- Decrease costs
- Increase revenues

Starting with the costs, I'd like to understand whether it is possible to restructure the fixed costs or lower the variable costs...

Interviewer

Costs are really not an issue here.

Candidate

Since costs are ruled out, let us focus on increasing revenues. I see five ways of increasing revenues:

- Expand the market
- Steal market share
- Enter a new market
- Increase prices
- Change the product mix being promoted

Starting with prices, I am wondering about the price elasticity, and whether it will be possible to increase revenues profitably by raising the prices? Or lowering them?

Interviewer

That is not really very important here.

Candidate

Okay, so let's move to expanding the market. Does it seem possible that we may be able to increase the usage, or essentially make people buy more of the product, unlikely as it may appear?

Interviewer

For a bike helmet, making the same people buy more doesn't seem very probable.

Candidate

In that case, let us look at increasing the number of buyers. For the international market, I will look primarily at cultural, pricing and usage issues while for the domestic market...

Interviewer

Let us focus on the domestic market, and leave international expansion aside.

Candidate

Excuse me, but seems like I haven't understood the question correctly. Didn't the client ask me to compare international and domestic expansion options?

Interviewer

No, the client has asked you to look at the domestic market only.

Candidate

Oh, dear! I thought the client needed a Domestic versus International comparison. Now I can see that you meant it more like Domestic as opposed to International.

Interviewer

Oh, sorry about the confusion. All the people who interviewed you understood the meaning correctly. However, I can see how this can be interpreted the way you did. Sorry about that.

Candidate

Oh, I am sorry. I should have clarified in the beginning. I guess product-mix issues are also out of the picture since we only want to look at increasing revenues, not profits. If we are looking for top line growth in the domestic market, to increase the number of buyers we need to consider the channel we are selling through. About these retailers – who are they in terms of usage? Can they be categorized on volumes or margins?

Interviewer

There are two types of retailers

High Earnings – Cycle shops. There are 4 chains, but most are small independent shops.

Low Earnings – Wal-Mart

Candidate

Very interesting. How does our brand-name fare with these channels?

Interviewer

We have a decent brand with cycle shops. Wal-Mart has it's own private label which comprises the bulk of it's sales.

Candidate

Hmm....could we try to go to other chain retailers like Target and get our product in them? Can we offer to manufacture Wal-Mart's private label helmets? Can we co-brand Wal-Mart private label helmets? Can we sign exclusive contracts with cycle shops?

Interviewer

Those seem like viable options, though they will take some work. Anything else?

Candidate

To achieve top-line growth, the company should also explore getting into new markets by developing new products. The company should utilize its prowess in helmet manufacturing to develop and market new products since the helmet industry is stagnating. For instance, if the helmets are made of plastic, the firm should try to leverage its current manufacturing and distribution abilities to sell other bike-related plastic products. If this is successful the product range can be expanded further to include plastic products for other sports. Or may be the client can start manufacturing baseball helmets or cricket helmets.

Interviewer

Great! The company overestimated demand and produced 30M helmets. How many must it sell to break-even?

Candidate

At break-even,

Price x Volume Sold = Fixed costs + Variable Costs x Volume Produced

Do we have information about the price and the costs?

Interviewer

The price at which the company sells to retailers is \$10. The fixed costs include \$22M in labor and \$10M in overheads. Variable costs are \$4 per helmet.

Candidate

Okay, so

Price x Vol = Fixed costs + Variable costs x Volume produced

$\$10 \times \text{Vol} = \$22 \text{ M} + \$10 \text{ M} + \$4 \times 30\text{M}$

$\$10 \times \text{Vol} = \152 M

$\text{Vol} = 15.2 \text{ M}$

Interviewer

And what if the company has complete visibility of the demand? For instance, it only manufactures on order, say from Wal-Mart? What is the break-even in that case?

Candidate

Price x Vol = Fixed costs + Variable costs x Volume produced

$\$10 \times \text{Vol} = \$32 \text{ M} + \$4 \times \text{Vol}$

$(10-4) \times \text{Vol} = \32M

$\text{Vol} = 32\text{M}/6 = 5.3 \text{ M}$

Atlanta Entertainment

Given by Matt Finger, Goizueta MBA '05

Interviewer

Your client, the city of Atlanta is considering building either a baseball stadium or an aquarium. The city does not have enough funds to build both and must decide between these two options. What factors will you consider while making the decision?

Candidate

I would look at the following factors:

- How popular is the game of baseball vs. water-borne wildlife in the city?
- What will be the likely market size and the prices for each facility...in other words, what are the likely revenues for these venues?
- What are the costs involved – building, maintaining, operating?
- How many and what substitutes are available? For instance, is there a zoological park in the city? Or perhaps other sporting stadiums?
- How does the plan compare to other, similar cities? Do they have baseball stadiums or aquariums?
- Lastly, I'd consider political factors and associations.

Interviewer

You mentioned finances...in costs there are costs of building, maintaining and running. The opportunity cost or the cost of capital is 10%, and cash flows for the aquarium are as following:

Y0 – net costs of \$20 M

Y1 – Income of \$10 M

Y2 – Income of \$11 M

On the basis of this information, do you recommend building the aquarium?

Candidate

Future value at Y2 of costs = \$24.2 M

Future value at Y2 of income = \$11 M + \$11 M = \$22 M

This is negative net future value investment. I will not recommend it.

Interviewer

This was an interesting calculation. Instead of the NPV, you calculated the net future value. How and why did you do it?

Candidate

I just used the compound interest formula. Heck, since it was just 2 years, I used simple interest formula and compounded in my head:

Cost

Y0 → 20

Y1 → 20 + 10% of 20 = 22

Y2 → 22 + 10% of 22 = 24.2

Income

Y1 → 10

Y2 → 10 + 10% of 10 = 11

Also, Y2 has additional income of 11

So total income = 11 + 11 = 22

Net future value = - 24.2 + 22 = -ve

Normal procedure is to calculate the NPV. However, I find it easier to multiply than to divide, and therefore calculated the NFV, which leads to the same conclusion, only faster.

Interviewer

Cool. The city projects that if it builds the stadium, it will be able to sell 2500 season's tickets at \$1200 each. How many per game tickets must be sold if they are priced at \$40 each? We know that annual operating costs are \$27 M.

Candidate

At break-even, revenues should equal costs.

$$3 \text{ M} + 40 \times \text{Vol} = 27 \text{ M}$$

$$40 \times \text{Vol} = 24 \text{ M}$$

$$\text{Vol} = 2.4/4 \text{ M}$$

$$\text{Vol} = 0.6 \text{ M}$$

Interviewer

If there are 80 games per year, what should be the seating capacity of the stadium?

Candidate

Assuming that the break-even should occur at 25% occupancy:

$$\text{Per game tickets} = 600\text{K}/80 = 7.5 \text{ K}$$

$$\text{Season's tickets (assuming all attend)} = 2.5 \text{ K}$$

$$25\% \text{ occupancy} = 10 \text{ K}$$

$$\text{Stadium capacity} = 40 \text{ K}$$

From Harvard's case-book

Retailer Growth

A major retailer of clothing and household products has been experiencing sluggish growth and less than expected profits in the last few years. The CEO has hired you to help her increase the company's annual growth rate and ultimately its profitability.

- The retailer has 15 stores located in shopping malls in metropolitan and suburban areas.
- Total revenue from the 15 stores has declined, despite major back-end cost savings.

RECOMMENDED SOLUTION

High Level Plan of Attack

- You need to understand why growth has slowed and profitability has declined despite cost savings.
- Do different stores experience variations in revenue? Do they all have the same approach to selling?
- Is purchasing behavior of the consumer different in the two areas?
- Has there been any new competition on the scene? In one area and not the other?

Lay Out Your Thoughts

- Use the profitability framework. The case tells you that cost savings have been achieved. Focus on the revenue side.
- Focus on the fact that the company has 15 different stores, in two different geographical areas. What are the key differences between the two in terms of the consumer, competition, and growth?

Dig Deeper: Gather Facts

- Are some stores more profitable than others? Yes they are. We see variations throughout.
- Are there differences in profitability between the metropolitan and suburban stores? Yes there are. We see that the suburban stores are more profitable than the urban ones.
- Is there more competition in the urban areas? No, not really. It's proportionally the same.
- Do the stores sell the same products? Yes they do. All stores have the same product mix.
 - [Given that all stores sell the same product mix and some are more profitable than others, this should lead you to look at consumer behavior]
- Do consumers in the suburban areas have different purchasing behavior than the urban dwellers? Yes, as a matter of fact, they do. The suburban customer tends to buy more of the major appliances and electronic equipment than the urban consumer. The urban consumer buys mostly items such as clothing, small furniture items, and small appliances.
 - [You can make the assumption that suburban consumers have higher incomes and are in more need of major appliances given the difference in living quarters between houses versus apartments in the city.]
- Is there a difference in profitability between the goods purchased by the suburban and urban consumers? Yes. Major appliances and TVs and stereos are higher profit items than clothing and minor appliances.

- Would you say that the current product mix is more suited for the suburban customer than for the urban? Yes. I guess it is.

Key Findings

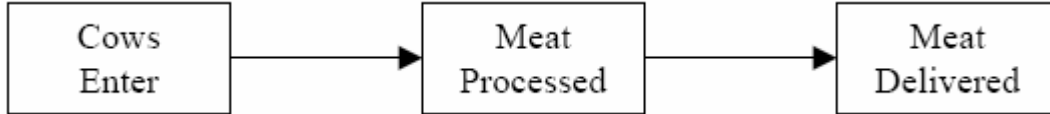
- The consumer in the city has different needs and purchasing behavior than the suburban consumer. The stores in the city are not catering to the demographics of its surroundings.
- Unnecessary costs are being incurred through inventory and lost floor space in the city stores, resulting in lost revenue for the retailer.

Recommendations

- Further analyze the customer for each of the stores and differentiate purchasing behavior and income levels.
- Cater the product mix according to the customer research findings.
- Stores that cannot sustain selling low cost items should consider the possibility of closure.

Butcher Shop Process

A fast food chain recently bought a bovine meat-processing outlet to supply it with fresh hamburgers and other meats. The shop process is: cows enter from one end of the shop, meat gets processed in the middle, and then the meat gets packaged and delivered at the other end.



The manager of the butcher shop however could not decide whether to have the cows walk or run into the meat processing room. Can you help him?

RECOMMENDED SOLUTION

High Level Plan of Attack

- The first thing you want to do is to understand how much meat can be processed (the capacity) when the cows walk versus run.
- Then analyze the cost implications of the cows walking versus running.
- Next, calculate the size of the market and demand for the product.
- Finally, match demand with supply.

Lay Out Your Thoughts

- This is a market sizing, operation’s cost analysis question. Try to lay your plan of attack on paper in a logical sequence of steps to take.

Dig Deeper: Gather Facts & Make Calculations

- Shop Capacity
 - Let’s assume that only fresh hamburger meat is processed at the shop. Let’s also assume that from each cow, you can make 20 hamburgers.
 - How many hours per day is the shop open for? 10 hours, 5 days a week.
 - Now, if the cows walk in, 10 cows can be processed in one hour, given current labor.
 - This gives us an estimated 2000 hamburgers that can be processed in one day if the cows were to walk (20 hamburgers/cow x 10 cows/hour x 10 hours/day).
 - If the cows were to run in, let's assume that 25 cows can be processed in one hour. This gives us 5000 hamburgers per day.
- Costs
 - Next, we must calculate the costs associated with the two different capacities. Let us assume that labor cost increases proportionally to the increase in processed meats, and overhead increases, but not proportionally due to some sunk costs, for more equipment and other expenses. Here is the breakdown:

	Walk	Run
Overhead	\$5000	\$10,000
Labor	1,000	2,500
Total Cost	6,000	12,500
Burgers/Week	10,000	25,000
Cost per Burger	\$0.60	\$0.50

- This shows that by running, costs drop by 10 cents on each burger.
- To estimate revenue, we need to calculate the demand from estimating what the market size would be.
- Let's assume that the fast food chain has 10 outlets, and the meat-processing factory serves all 10. Each outlet serves a vicinity of about 30,000 people. Now, let's also assume that there are about 3 other competitors in each vicinity, leaving it with a market share of about 25% of the customers in each area, for a total of 75,000 potential customers.
- Of those 75,000, about 40% of them fall within the demographic target, leaving 30,000 desired customer.
- Given the trends in healthy foods, out of the 30,000 desired customers, about a third will be allowed by their parents to frequent any one of the establishment on a regular basis - leaving 10,000.
- Of the 10,000 customers, each will frequent the establishment about twice a week on average - 20,000 visits. Out of these visits, about half order a burger over another item on the menu - for a total of 10,000 burgers a week.

Key Findings/Recommendations

- Even though it's cheaper to produce more burgers, there's no demand to support it.
- Have the cows walk. This meets demand and ensures fresh hamburgers.

Juice Producer Profitability

A major producer of juice is in the business of processing and packaging fruit juice for retail outlets. Traditionally, the producer has packaged the juice in 18-ounce carton containers. Recently, in response to demand from the market, the producer purchased a machine that packages the juice in plastic gallons (36 ounces). Over the next couple of years, sales continued to grow on average of 20% per year. Yet, as sales continued to increase, profits steadily decreased. The owner cannot understand why. He hires you to help out.

RECOMMENDED SOLUTION

High Level Plan of Attack

- We know that sales have been increasing, so revenue is not an issue. The problem must be costs.
- Because of the change in packaging, the producer has incurred additional costs that are not accounted for, causing profits to decline.

Lay Out Your Thoughts

- Use the profitability framework. Gather information on the revenue side, but focus mostly on the cost side.

Dig Deeper: Gather Facts/Make Calculations

- Looking at the revenue side, how much did the producer charge for the 18 oz. carton? \$2.00 per container.
- For the 36 oz. plastic gallons? For twice the size, the producer figured he would provide an incentive to buy by selling them at \$3.50 per gallon.
- How was the cost of the new equipment accounted for in the price? The producer ended up raising prices across the board by \$.50 on all packages, both cartons and gallons, selling at \$2.50 and \$4.00, respectively.
- What about cost of packaging? Does it cost the same to package the juice in cartons as it does in gallons? Well, I guess not. Plastic is more expensive than the paper carton we have traditionally used. Also, we had to hire more experienced labor to operate the machine because it is a little more complicated than the carton machine. We figured that because the demand was higher for the gallons – we would cover our costs through increased volume.
- What about overhead costs? All costs for the factory are added together and divided by the number of units produced.
 - This should raise alarm bells. This is now clearly an issue of cost allocation. The price on the plastic gallons should be higher due to higher costs. Now you need to see to what extent this is affecting the bottom line.
- Let's try to understand the trend in sales. What percentage of gallons versus cartons is sold? The more our customers notice the gallons, the more they like them. As the overall volume is increasing, plastic gallons have comprised 60% of the sales. The owner has been very pleased about that.
- It seems to me that it costs more to package in the gallons, yet the price is not higher on a per ounce basis. In fact, it's lower. Have you done any proper cost allocation to determine which type of product should carry which costs? No, we haven't.

Key Findings

- The major finding in this case is the additional costs associated with the plastic gallons were averaged out over all units, including cartons. This resulted in a misallocation of costs and inappropriate pricing.
- The plastic gallon products have been priced at a lower rate than they should have been. Result: the more gallons the juice producer sold, the more profit the company lost out on.

Recommendations

- This firm should conduct a thorough analysis of activity based costing to determine the overhead costs and direct costs associated with each item in the product line. They should then use this data to price accordingly.

Chemical Manufacturer Profitability

A major chemical manufacturer produces a chemical product used to preserve foods in containers. Despite an increase in market share, the manufacturer has experienced a decline in profits. The CEO of the company is worried about this trend and hires you to investigate.

RECOMMENDED SOLUTION

High Level Plan of Attack

The first thing we need to figure out is what does "an increase in market share" mean? Remember, the term "market share" is a percentage, and not an absolute number. It could imply that the company has increased its share of the market by beating out the competition, or the competition exiting the market. It could also mean that the market is actually shrinking, but the sales of the company are decreasing by less than those of its competitors.

Lay Out Your Thoughts

Use the Profitability Framework. Lay out factors that you feel would help from the Value Chain analysis, 4Cs, and 4Ps.

Dig Deeper: Gather Facts

- Has the company experienced any significant increase in cost in the last couple of years related to any additional fixed or variable cost? No, costs have been steady.
- On the revenue side, has there been an increase in the volume of output? Slightly, a little bit higher than the industry average.
- What about the competition? Have there been any new entrants on the scene? Actually, competition has decreased. A number of players have exited the industry.
- Why has that been the case? They were losing money. They felt that the industry had gotten saturated, so they left.
- Has sales decreased for the industry overall? Yes, there has been a general negative trend in the last few years. There certainly has been less demand for the product.
- Are substitute products being used? Not really. Preservatives in general are being used less in foods. Fresh food is now the preferred choice for many consumers.
- What about the makers of food? Are they experiencing decreased volume? Yes, the entire industry has been slowing.
- Are they forced to lower their prices to survive? They certainly are. Additionally, to lower costs, they are using their leverage to renegotiate price structures of raw materials.
- So is the company in question forced to lower its prices? Yes. They are gaining market share, but it's because of a number of competitor fallouts.
- But costs have stayed the same? Yes.

Key Findings

- The industry overall is shrinking. To survive, the company in question has been competing on price. It has gained market share at the expense of its competition, forcing some to exit the industry.
- Its sales have only increased slightly.

- The decrease in price has caused the company to lower its profits, despite the increase in market share.
- Profit margin has been lower on a per volume basis.

Recommendations

- Focus on cost reduction. If price is the only way to compete, then costs must decrease.
- Collaborate with the competition to increase leverage in negotiation.
- Diversify into other chemicals that are in demand. Reduce the risk of market trends via a portfolio of products.

VieTire Competition

A tire manufacturer in Vietnam, VieTire, has been the only player in that market due to high tariffs on imports. They dominate the tire industry. As it stands, the tariff is 50% of the total cost to produce and ship a tire to Vietnam. Because of the forces of globalization and lower consumer prices, the Vietnamese government decided to lower the tariff by 5% a year for the next ten years. VieTire is very concerned about this change, as it will radically alter the landscape of the industry in Vietnam. They hire you to assess the situation and advise them on what steps to take.

RECOMMENDED SOLUTION

High Level Plan of Attack

- The first thing we need to understand is the current cost structure of VieTire's product.
- Next, we must determine the impending competitive situation.
- Then, Calculate the impact the reduction of tariff will have.
- Finally, recommend specific steps that VieTire can take to protect themselves from increased competition.

Lay Out Your Thoughts

- Specify what steps we must take to understand the cost differences now, and in the future, of VieTire and its competitors

Dig Deeper: Gather Facts/Make Calculations

- What would you say are the major costs associated with making a tire? Raw material comprise about 20% of the cost, labor 40%, and all other costs such as overhead 40%. The average tire cost about \$40 to make.
- It seems that labor is a major cost, \$16 per tire. Why? Things are done more manually. Most of technological advances in the industry have not yet been implemented in Vietnam.
- What about the cost structure of the competition? An average tire manufacturer in the US produces tires at a cost of \$30 each.
 - Assuming shipping cost to Vietnam of \$4 each tire, and a tariff of 50%, the average cost of an imported tire in Vietnam amounts to \$51. So currently, even though the cost to produce a tire in the U.S. is much cheaper due to technological advances, foreign competitors are out of luck because of the tariff.

Year	Tariff	Cost	Result of Competition
Now	50%	\$50.00	Will not enter
1	45%	\$47.90	Will not enter
2	40%	\$46.00	Will not enter
3	35%	\$44.50	Will not enter
4	30%	\$43.00	Consideration of entrance if willing to take a cut on price
5	25%	\$41.30	Preparing to enter
6	20%	\$39.60	Entered the market
7	15%	\$38.00	Competing on the market

Key Findings

- Depending on what price they are willing to set, the competition will start to think about entering the market in year four. In year six, the competition will surely enter as their prices become lower than domestically produced tires.
- This analysis assumes that the cost structure for the competition will remain constant. It is important to note that because of the rapid advances in technology, chances are that the costs of producing tires will decrease resulting in competitors entering the market even sooner.

Recommendations

- VieTire needs to benchmark against world class tire manufacturers and reengineer production methods and cost structures.
- They must invest in the latest advances in order to reduce their labor/operations costs.
- The company should focus on increasing the skills of labor while at the same time contain their hourly wage.
- Need to develop loyalty from their customers/consumers in order to lock in a certain percentage of the market share.

World View TV Profitability

A cable TV company from Canada, World View, had recently entered the US market in the northeast to expand its market share. World View saw this move as an opportunity to capture a large part of the US market (4MM consumers) in a market with very little competition.

However, in the last couple of years, much to the surprise of management, World View has been unable to make a profit. You have been hired to figure out why and advise them on their next move.

RECOMMENDED SOLUTION

High Level Plan of Attack

- We need to understand why the company is losing money despite the market being uncompetitive.
- We must analyze both the revenue and cost side of the problem.
- We should also analyze the differences in viewing behavior and income between the customer base of World View in Canada and in the northeast.
- We will also determine the strength of any competitors and substitutes.

Lay Out Your Thoughts

- Use the profitability framework.
- Focus very heavily on the consumer.

Dig Deeper: Gather Facts/Make Calculations

- Let's look at costs first. Did World View incur additional costs per customer on average in the new market? No, based on the potential number of subscribers, they have instituted the same system that was in place. Costs associated with cable wire, debt, maintenance costs, etc. are all proportionally the same.
- What about the number of subscribers. Out of the 4MM potential customers, how many are signed up? Only 2.1 MM.
- Are other cable companies capturing the remaining market? No, competition is not an issue. Those that we have not acquired as customers simply do not have cable.
- What about substitutes and viewing behavior? How is the consumer in the northeast US different from the one in Canada? Well, the Canadian consumer does not rely much on local stations for watching TV. Cable is a major source of entertainment and news coverage. In the northeast US, we tend to see consumers shy away from paying the \$40 a month. They settle for watching local stations.
- Does the new market have a lower income level? Yes, they do, by about 20% on average.
- What about the local stations? How many are they? Do they meet most of the needs of the consumer? There about 16 local stations that have coverage over the entire northeast. I guess they are doing pretty well by providing programming that the consumer wants. You tend to see the average consumer in the northeast watch regular TV more than Cable when compared with the Canadian consumer.

- Do these stations have good reception and how much do they charge? They have a very good reception and they are part of basic TV, so they are free.
- Is World View providing any type of programming that the local stations are not providing? Some, but the consumers don't seem to be interested. They don't feel that it's worth \$40.

Key Findings

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

Recommendations

- World View could try to cater its current channel offering by offering a smaller package for those that would be interested in couple of cable channels.
- Scale back its operations to a specific region.
- Educate the consumer on the extra benefit and new low price.
- If none of these strategies work, move out of that market.

Le Seine Investment

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

RECOMMENDED SOLUTION

High Level Plan of Attack

- Understand the company's logic for entering into the fast food industry.
- Examine the overall trends in the fast food industry, and determine which segment is the most promising.
- Assess the overall demographic changes and major trends in eating habits.
- Determine what competencies the company can provide that will help it enter this business and be successful.
- What are some of the high level strategies that the company should consider when entering?

Lay Out Your Thoughts

- Use some elements of the 4Cs, 4Ps, and Porter's Five Forces. Identify which factors you need to address and list them in a logical sequence.

Dig Deeper: Gather Facts/Make Calculations

- Why is the company thinking of investing in the fast food industry and not another? The fast food industry has been experiencing sustainable growth for the last few years, and we believe that it will continue to grow.
- Why in the US market and not the French? The US is more attractive economically and Le Seine has been present in the country for a few years.
- Does the company know much about the fast food industry and its consumers? Not very much. They're not sure where to enter. The industry as a whole might be growing, but let's think about which segment is growing the most and where it would make sense for the company to enter. If we look at the traditional burger outfits, that segment is pretty much dominated by three players: McDonalds, Burger King, and Wendy's. I would think that the barriers to entry are pretty high for this segment. You also have pizza, Mexican, chicken, cold cut sandwiches, prepared meals (Boston Market).
- Has the company thought about which to enter? No. But what do you think, at a high level, which segment should they enter?
 - [Quickly run through the pros and cons of the various segments]
 - Well, if we take a look at the company itself, it is more inclined to be in the prepared meals segment, given that it is French and has a European appeal. If we look at the trends, the population is getting older and more families have two working parents. Also, there seems to be a move towards eating more healthy foods. If we consider the competition, the segment seems to be at the growing stages, with only one or two known players. The barriers to entry are certainly not as high as some of the other segments.

- To distinguish itself from the competition, it can make food with a French theme, priced competitively. The company can also set up shop in major grocery stores, as more people are purchasing prepared foods as part of their grocery shopping.
- It would be a fair assumption to say that Le Seine can capitalize on its distribution and marketing experience in the US.

Key Findings

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

Recommendations

- Based on this assessment, Le Seine should enter on a large scale. To offer competitive pricing, they must have economies of scale.
- Quickly develop strong brand equity. Look at the franchising option. Examine in detail how the most successful fast food outlets operate.
- Consider acquiring an existing chain versus starting a brand new one.
- Location is extremely important. Know your customers in every region, and focus on convenience.

Auto Service Expansion

A major auto service chain, Wheeler Dealer, has enjoyed healthy returns on its 30-store operation for the past 10 years.

However, management feels that the chain needs to expand, as the current geographical areas in which they are based have become saturated.

For the past couple of years, they have aggressively pursued a growth strategy, opening an additional 15 stores. However, it seems that this approach has had negative returns. For the first time in over a decade, the chain's profits dropped into the negative zone. You were hired to figure out why.

RECOMMENDED SOLUTION

High Level Plan of Attack

- You need to understand the nature of the business. What does the auto service entail?
- Focus on the customer segmentation. Are they serving more than one customer? Any differences?
- What is the profit structure of the different offerings?
- Where did they move? Are the newly formed stores operating differently or serving different markets than before?

Lay Out Your Thoughts

- Use the Profitability Framework. Focus on how revenue has changed given the environment.

Dig Deeper: Gather Facts/Make Calculations

- What type of services has Wheeler Dealer traditionally provided for its customers? There are two main businesses under each roof: off-the-shelf car parts and the garage mechanical services.
- Are these services provided as well in the newly developed chains? Yes.
- Have competitors entered the market stealing market share? A few competitors have entered the market, but not too many. The expansion was planned to explore new markets and prevent the competition from growing.
- What about price? Have prices gone up to help defray some of the costs associated with growth? No, they have stayed the same.
- Given the two types of businesses for each chain, do they have the same profit margin? No. In fact, because the garage services cost the business a great deal more and the mechanics are very well trained, we charge a premium. Profit margin on servicing cars has twice the profit margin of off-the-shelf products.
- Are the customers the same for both businesses? No. The customer that uses the garage service tends to come from a mid-to-high income bracket. Those that use the off-the-shelf auto parts tend to be of the lower-income bracket. They fix their cars on their own.
- Where has Wheeler Dealer traditionally been located? Mostly in, or very close to the suburbs.

- Has the geographical location changed as they expanded? Yes, They saw certain urban areas as very inexpensive. They located more in inner cities where there are a lot of used car sales.
- So, would it be fair to assume that the more profitable business, the garage service, has deteriorated and the sale of off-the-shelf parts has increased, causing overall profitability to go down? Yes.

Key Findings

- The garage service is the major revenue generator for the business. As they expanded into the inner cities, they began to attract the wrong customer. Profit margin on the off- the-shelf products is not enough to cover costs and make a healthy return for Wheeler Dealer. A price increase is unlikely given price sensitivity.

Recommendations

- Scale back from the urban areas. Focus on geographical areas where you can attract the suburban customers who will use the service aspect of the business. Maintain a healthy return on the car product market from the inner city dwellers.
- Where possible, drop the garage service in under-performing areas to reduce costs and focus on the retail end.

Travel Agency

A travel agency makes a 10% commission on all of its travel bookings. Their current profit before taxes is \$1MM, while the industry average ranges from \$2MM to \$3.5MM. Why are they making less than the industry average?

RECOMMENDED SOLUTION

High Level Plan of Attack

- We need to understand the revenue stream and cost structure of the travel agency and conceptualize how each transaction contributes to the bottom line.
- Focus on the types of customers the agency services and how each type relates to profitability.

Lay Out Your Thoughts

- Use the Profitability Framework, with a focus on the cost side of the equation.
- Break your analysis down to the two types of customers: business and leisure.

Dig Deeper: Gather Facts/Make Calculations

- What is the total gross revenue for the agency per annum, on average? \$10 million.
- How does the revenue compare to other agencies with similar size? They are about the same.
- What about the product line? Does the agency handle any bookings other than travel tickets? No. They just book tickets for their customers.
- What are the different customer segments that the agency services? There's the business traveler segment, which comprises about 40% of total revenue, and the leisure traveler segment with the remaining 60%.
- How many total transactions does the agency process and what is the break down for each customer segment? The total number of transactions is around one million per year. On average, about 300K go to the business segment, and 700K to the leisure.
- Is there a cost associated with each transaction? Yes, each transaction, regardless of which segment, costs \$9.
 - [Now you have all the necessary information to calculate the profitability of transactions for each segment. If you run the numbers, you will find the following information.]

<u>Segment</u>	<u>Share</u>	<u>Volume</u>	<u>Total Revenue</u>	<u>Revenue / Transaction</u>	<u>Cost / Transaction</u>	<u>Profit / Transaction</u>	<u>Gain</u>
Business	60%	300,000	\$ 6,000,000	\$ 20.00	\$ 9.00	\$ 11.00	\$ 3,300,000
Leisure	40%	700,000	\$ 4,000,000	\$ 5.71	\$ 9.00	\$ (3.29)	\$ (2,300,000)
			\$ 10,000,000				\$ 1,000,000

Key Findings

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

Recommendations

- Benchmark the cost structure of other travel agencies.
- Negotiate with the airlines on the possibility of charging a premium for leisure tickets or capture a larger commission through cost charged to the customer.

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

- Look into the possibility of reducing cost per transaction for the leisure travelers.
- Offer the leisure traveler other products to increase revenue per transaction such as hotel bookings and travel packages.
- Become a niche player and focus only on the business traveler

Hospital Profitability

Our client is a 350-bed hospital in a mid-size city. The organization has historically exhibited strong financial performance, and had a 1-3% operating gain each year for the last five years. However, they are projecting a \$12 million operating loss this year, and expect this situation to worsen in the future. As a result, the CFO believes that they will be out of cash within five years. They have asked us to identify the source of this sudden downturn, and to come up with alternatives to restore them to a break-even position. They are one of the largest employers in the market, and will not consider layoffs as a possible solution.

Background

This question addresses company profitability. The interviewer is looking for a candidate's business intuition and ability to apply this intuition to identify potential sources of the problem. In addition, the interviewer is looking for potential solutions to the client's problem.

Response

Candidate: Profitability is a function of an operation's revenues and costs. The first thing I'd like to focus on is the company's future revenue stream. As I understand the hospital industry, revenues may be fixed for several years due to long-term contracts with insurers. Is this the case for this hospital?

Interviewer: Your intuition is correct. Revenues have dropped approximately 15% so far this year due to aggressive pricing on capitated managed care contracts that were signed in January and declining admissions and length of stay for their fee-for-service contracts, most of which are still reimbursed on a per diem basis. All contracts are binding for three years, and cannot be renegotiated.

Candidate: In that case, it is important to understand the company's cost structure to see if it can adjust to this declining stream of revenue. Does the client have considerable fixed costs that will be difficult to reduce in the near term?

Interviewer: Hospital occupancy is approximately 70%, resulting in high fixed costs that are not covered by the current contribution margin. The organization is currently staffed for 80% occupancy.

Candidate: Since revenue is declining at a fixed rate and fixed costs are high in the short-term, the hospital will have to analyze its variable cost structure. I would surmise that staffing costs are the main source of variable costs. However, the hospital cannot address this due to its policy concerning layoffs. I would think that the other main driver of variable costs for the hospital lies in its utilization of resources. Am I headed down the right track?

Interviewer: In fact, you're right. The utilization of diagnostic and therapeutic services during a patient's stay is approximately 15% higher than what was expected when contract pricing was negotiated.

Candidate: Given that information, the hospital should focus on changing physician behavior since physicians ultimately control the utilization of resources. The hospital may want to align MD incentives with those of the hospital by sharing risk, giving physicians data and education on their use of resources versus the competition. Other ways to reduce expenses could be to sign exclusive contracts with a distributor in order to generate volume discounts and economies in purchasing, or by reducing choice by limiting the pharmacy formulary to generics and decreasing the number of vendors utilized for high volume items such as prosthetics and heart catheters.

Interviewer: That's a good discussion of cost implications, but have you given up on recommending ways to increase hospital revenue?

Candidate: Now that you mention it, the situation is not hopeless in this regard. The hospital may want to increase revenue by signing contracts with additional insurers, by putting salaried physicians on staff to guarantee that they admit to our client's hospital, or by creating an affiliated physician organization to increase their share of admissions. In addition, they can potentially leverage their distinctive competencies by developing Centers of Excellence that can be marketed to managed-care contractors as an exclusive provider for those services within the region, and possibly outside the region.

Interviewer: Are there any other solutions that may be feasible?

Candidate: One final thought that keeps coming back to me centers on the company's current competitors. What does the local market look like?

Interviewer: There are two other 350-bed hospitals in the city. One is an academic medical center, the other a catholic hospital recently acquired by a for-profit chain. Additionally, total admissions in the marketplace have dropped by 5% and total patient days have declined 10%.

Candidate: In that case the hospital may want to consider affiliating with a competitor in the market. This may help to decrease capacity across the city by rationalizing the services offered at each institution. This may allow one hospital to close, thereby reducing fixed costs.

General Summary Comments

The candidate should fully address the components of this issue ($\text{profit} = \text{revenue} - \text{costs}$) and should be able to demonstrate an understanding of fixed vs. variable costs. Moreover, the candidate should be able to brainstorm possible solutions to the problem, both from a revenue maximization and cost minimization perspective.

E-Grocery Market-entry

The client is a grocery store chain that is considering whether or not they should enter the emerging Internet-based grocery shopping/delivery market in the Boston area. This regional chain is currently one of the leaders in the traditional grocery store market in northern New England.

In their core market, two competitors have emerged in the Internet/at-home grocery shopping business, and are rapidly gaining market share. One of the companies that has already entered this new marketplace is the client's primary competitor in the traditional market. The second player is a chain that does not have grocery stores in the target region, but has entered the Boston area with Internet shopping delivery services.

Should the client enter the market? If so, how, and what concerns should they have? If not, how do they protect market share from the emerging market that is threatening to steal business?

Background

This is a market strategy issue. The interviewer is looking for a discussion of the client's customers, competitors, costs, core competencies and the overall market dynamics. In addition, the candidate should be able to present a solution and identify the key success factors for this solution.

Response

Candidate: The client must first do some preliminary work examining the market for groceries delivered over the Internet. I would like to get a better sense for the company's current customers, as well as potential customers, to see if the Internet is a viable delivery mechanism for the company. Can you tell me more about the client's customers in the area?

Interviewer: The client serves primarily upper-middle class customers.

Candidate: That's important to know. I would guess that prospective users of an Internet-based delivery system are upper-middle class. Can you confirm this and elaborate on the growth prospects for this market?

Interviewer: Your guess is correct. Users of the Internet delivery system are typically upper-middle class. As far as the market is concerned, home grocery shopping among Internet users is growing rapidly and the percentage of homes with Internet access is also growing.

Candidate: We've established that the market is an attractive one, however I still need more evidence before presenting a recommendation. I'd like to now turn to the two competitors described in your opening. Can you explain their current market share?

Interviewer: All three local players have an equal market share - roughly 15%.

Candidate: And can you address recent growth trends among the competition?

Interviewer: The competitor without stores in the target region is gaining market share more rapidly than the company with stores in the target region.

Candidate: We've established pretty convincingly that the market is attractive. I'd like to now focus on our client. Clearly not all companies are prepared to put their operations on the Internet. There are two central issues I'd like to better understand. First, the company's core competencies—does it have the requisite skills to address the Internet user? Secondly, I'd like to understand the company's cost structure. Is such a move feasible for the client? Do you have any information on the company's distribution capabilities? Specifically, is it able to address the Internet market?

Interviewer: The co.'s current distribution facilities are not adequate for the delivery system.

Candidate: How about the company's employees? Are they sufficiently trained to handle delivery tasks associated with the Internet?

Interviewer: The current employees cannot perform these tasks without more training.

Candidate: Those are some important considerations to ponder. However, given the market attractiveness for Internet groceries, the client would be crazy to pass up this opportunity. Its customers are Internet users, the competition has already shown a willingness to invest in the market, and the competitor with no stores in the region (i.e. totally reliant on Internet sales) is growing the fastest. That said, the company must be willing to invest in this market to succeed. First, it must improve its distribution capabilities. Further analysis must be done as to whether it should improve its current operations or develop a stand-alone capability exclusively devoted to the Internet market. Next, it must develop an inventory management system so that it can effectively track what it orders from suppliers, what customers are ordering, and where the product is delivered (Internet vs. traditional). Finally, it must spend enough money to cross-train its employees so that tasks associated with Internet delivery can be effectively performed.

Interviewer: Are there any other considerations?

Candidate: When the company rolls out its Internet operations, it must not disappoint customers. Many of the Internet-based customers will be cannibalized from the traditional operations. In itself, this is not bad. These customers obviously prefer the alternative, and it's better for the company to retain them versus losing them to competitors. However, failure to deliver on Internet delivery will cause customers to consider switching to the competition. As such, the company must be sure it can effectively deliver on its promises from the moment it enters the Internet market.

General Summary Comments

The candidate does not necessarily have to recommend market-entry for this case. If the candidate believes the company should not enter the market, it must present a compelling business reason why and craft creative alternatives for market share protection. In either case, the key components of market strategy must be understood and addressed.

Formula Producer Investment

The client is a manufacturer and distributor of infant formula. They sell their product nationwide, and are in the middle of the pack in terms of market share. They are currently trying to boost their market share while maintaining profitability.

There is a government welfare program called WIC (Women, Infants, Children) that allows individuals living below the poverty level to receive vouchers for infant formula for their children. Unlike most welfare programs, this one is subsidized by the actual producers of infant formula.

On a state-by-state basis, infant formula producers bid for the right to be the sole supplier of infant formula to welfare recipients in that state. In addition to paying the government for the WIC contract, the client also provides rebates to retailers for WIC sales.

As a result, income received from WIC sales is substantially less than that received from normal formula sales. In fact, sales to mothers that remain in the WIC program for more than 12 months result in a net loss. In trying to determine how much to bid on a WIC contract for a given state, what factors should you consider?

Background

This case is fairly wide open, and presents an issue that is most likely unfamiliar and ambiguous. One challenge will be for the interviewee to find one or more issues that they can explore more in-depth. The basic focus of their analysis should deal with the relative profitability of a WIC contract.

Response

Candidate: I think for this case I would first look at who the typical WIC customer is, and the dynamic of the relationship, meaning how long are they a customer, and what kind of loyalty is there. Since I don't have any children, could you tell me more about a typical WIC customer, in regards to buying formula?

Interviewer: Sure. Obviously the typical WIC customer is poor, since this is a form of welfare. But some things you might not know are that 1) the average WIC recipient stays in the program for less than 12 months, 2) mothers typically remain loyal to a brand through infancy for their first child, but for subsequent children recipients often switch back and forth between brands, and 3) infants typically require formula the first 22 months of their life.

Candidate: Thanks. With that knowledge, I can start to think about the issues facing this company. In trying to decide the terms for the contract, profitability is the primary driver. There's obviously some issue of social-enterprise here, but even so, I think profitability will drive much of the decision. Since the WIC recipient gets rebates in addition to the subsidized cost of the product, we need to quantify that rebate in order to understand what the profitability per recipient is. Can you tell me that?

Interviewer: For the purposes of this interview, let's assume that the rebates average an additional 10% (off of the retail price).

Candidate: OK. So the profit per customer might be determined by (WIC revenue - rebates - COGS). So if the revenue is \$100/customer/year, and the rebates are \$10, and COGS are \$75, we make \$15 per customer per year. As long as we're paying less per customer for these rights to be the sole-supplier, we're in the black.

Interviewer: For the most part, your logic is correct. But is there anything else that might be a factor in determining profit?

Candidate: Well, related to the actual profitability of the WIC product I'm not sure. But maybe there are some hidden costs or revenues that I'm not thinking about. In fact, maybe there are some synergistic revenues that the company can achieve. If they get the contract, that gets them additional shelf-space in the stores. And not just WIC recipients shop in the stores. So maybe they will be able to increase market-share, just by being on the shelf. Of course, they are getting full retail price for those sales. So I might add in an additional sales minus COGS to the equation. But to try and get an idea of that figure might be tough. How long to these contracts last?

Interviewer: Typically, several years.

Candidate: Ok, so knowing that a contract is several years, say 5, we can begin to get a total dollar value for the contract. If we know how many WIC recipients there are in this state that we're bidding, we can calculate expected revenues. Also, if we can get an idea of how much shelf space we would have, we can quantify the synergistic sales.

Interviewer: Good. I'm not going to make you go through the math on it, because we're about out of time, but you're right. There are 1.2 million WIC recipients in the state, and shelf-space is awarded based on volume sales. So for this company to get the contract, it can help them have more sales volume, and thus more shelf-space, and hopefully then more market share.

General Summary Comments

Ultimately, they should come up with some sort of explanation for how numbers would be run to estimate an appropriate contract bid. One example might be:

$(\text{WIC revenue} - \text{rebates} - \text{COGS}) + (\text{synergistic non-WIC revenue} - \text{COGS}) \geq \text{Contract Bid}$
COGS takes into account economies of scale.

Real world situation is that synergies are strong, and WIC recipients bounce in and out of program but stay loyal to product for first-borns. Not only are the synergies positive, but also on average WIC recipients are profitable because they pay retail for nearly half of the formula that they purchase over the first 22 months of their child's life.

Pharmaceutical Product-launch

Our client is the U.S. pharmaceutical division of a multi-national corporation. In about six months the division will receive FDA approval to launch an anti-depressant drug. Despite this apparent good news from the FDA, the U.S. division is not elated. It has concerns over the market potential for this drug and its ability to reach the key prescribers in this therapeutic category. We have been asked to help determine whether they should 1) launch alone, 2) co-market with a partner, or 3) sell, license or swap the drug.

The concerns over market potential center on whether the drug can gain adequate competitive advantage in a market segment having two dominant, patent-protected competitors and nearly 100 generic competitors. Additionally, a higher technology antidepressant, which appears to offer therapeutic advantages, was recently introduced by a competitor.

Gaining the professional endorsement of psychiatrists is crucial to success in this therapeutic category since they write approximately half of the prescriptions for antidepressants. However, the division has no experience marketing drugs to this physician group.

Consequently, it would have to hire a sales force and/or enter into a co-marketing agreement to gain access to psychiatrists through someone else's force. The client would be able to leverage its existing sales force to reach the other half of the prescribers (Internal Medicine Specialist and Family and General Practitioners).

How would you help them decide whether to 1) launch alone, 2) co-market with a partner, or 3) sell, license or swap the drug to a third party?

Commentator: Note here what is being asked, "How would you help them decide." What is not being asked is "Which is the correct option to choose?" The Interviewer is looking more for how this problem is approached than for the "correct" answer. Also note that it is totally appropriate to take some time to organize your thoughts before launching into the case discussion.

Response

Candidate: In helping the client decide which option they should choose, I will want to guide them to the option that will create the most value. To understand main value drivers (i.e., profitability drivers), I will first explore the market attractiveness and our competitive position within that market in order to determine revenue potential. After that, I will explore the major cost issues. Starting with the revenue, I'll want to understand first what the overall market revenue opportunities are for this type of drug in addition to our product specifically. Now, the client expressed concern over the market potential for this drug. How big is the market and what is its potential growth rate?

Commentator: Here the Candidate has done several things. First, the Candidate has stated the overall objective, value creation. Next, the candidate stated the method of walking through this problem, looking at revenue by using a market economics and competitive position framework, then looking at costs. The Candidate provided a roadmap. Now the interviewer understands the

approach and expected direction of questioning. This helps the interviewer understand the student's thought process - how he or she thinks through business problems.

Interviewer: The overall antidepressant drug market is relatively attractive at \$1.1 billion per year and is growing well in excess of the population growth rate.

Candidate: You mentioned that concerns over market potential center on whether the drug can gain adequate competitive advantage in a market segment having "two dominant, patent-protected competitors and nearly 100 generic competitors." You also mentioned that a higher technology drug had entered the market. Is the antidepressant market segmented by technology?

Interviewer: Yes.

Candidate: And the two patent-protected competitors along with the 100 generic competitors are within our technology segment?

Interviewer: Correct.

Candidate: So, the overall antidepressant market is attractive at \$1.1 billion, but within that market, there are segments based on different types of technology that may or may not be attractive.

Interviewer: That's correct.

Candidate: What is the technology associated with our client's product?

Interviewer: Tricyclic antidepressants.

Candidate: How fast is this technology segment growing?

Interviewer: As a matter of fact, substitution by the new technology may cause a decline in sales over the next 5 years. Additionally, the existing competitive environment is very intense and will only increase if the market shrinks.

Candidate: So, the overall segment is not very attractive.

Interviewer: Correct.

Candidate: What percent of the volume do the two main competitors have?

Interviewer: In our own technology segment, the leader has approximately 10% and the number two player has about 4%. The rest of the 100 competitors each has less than a 2% market share. By comparison, the new technology has captured a 20% market share of the total antidepressant market.

Candidate: How much will our client's product be able to differentiate itself within our technology segment?

Interviewer: Not much. In a market research study we commissioned, the product was seen as very similar to the number two product in our technology segment, slightly inferior to the number one product, and slightly better than the generic products. The new technology was viewed as far better due to a lower level of sedation.

Candidate: So to summarize the market environment, although the anti-depressant market is attractive, the segment that we would be participating in is relatively unattractive and runs the risk of becoming smaller and more competitive over time. Additionally, within this unattractive segment, we have limited ability to differentiate ourselves relative to our competitors, and thus, will not be able to charge a premium price. I would think that this unattractive market and relatively undifferentiated position within that market would translate to a lower market share. I would estimate that our share might be lower than either of the branded products given our new presence in the market, say maybe a 2-4% share and this, like the rest of the segment, would probably decline over the next couple of years.

Interviewer: That sounds about right.

Commentator: In understanding the revenue potential, the Candidate did several key things.

- 1) Disaggregated the antidepressant market.
 - 2) Established the overall attractiveness of the relevant market segment.
 - 3) Established the client's relative attractiveness to competitors within that segment.
- This enabled the Candidate to come to the correct conclusion that an undifferentiated position within a relatively unattractive market will limit the revenue potential. Also, note that the Candidate is doing most of the talking. Use the interviewer to clarify questions or provide information, but the Candidate must lead the discussion.

Candidate: Knowing that our revenue potential is relatively low puts more pressure on minimizing the costs if we were to market the drug. I want to see what area within the cost structure impacts profitability the most. What percent of net sales is COGS?

Interviewer: About 20%

Candidate: And what is the bulk of the remaining line items?

Interviewer: Most of it is selling expense. There are some overhead/admin and advertising and promotional expenses, but most of it is selling expenses.

Candidate: So, selling expense is the largest portion of the cost structure, which means that whichever option we choose, launching alone vs. with a partner will certainly impact the selling expense (in addition to the number of prescribers reached, thus revenue potential).

Commentator: You can pick up good "tips" here. Spend time on things having high impact and feel free to test and see how important they are. Tests might include how large something is as a

percentage of sales, how important it is to the customer, or how much of an impact it has on manufacturing economies, etc.

Candidate: In understanding the effect of the co-market agreement on number of prescribers reached, I think it would be helpful if I could get an idea of who makes the purchasing decision.

Interviewer: Well, there are four main parties involved. There are the manufacturers (such as our client), the doctors (who prescribe the drug), the druggists (who fill the prescription) and the patient (who initiates the transaction). Selling is concentrated on the doctors, since they are the group that determines if medication is needed and, if so, what type.

Candidate: Is the growth in managed care going to influence the dynamics of this?

Interviewer: Yes, but for the purposes of our work, let's not address that.

Candidate: So, for the purposes of our work, the doctors make the purchasing decisions, this includes two groups of physicians, the Psychiatric group and the Internal Medicine/General Practitioner group.

Interviewer: Correct.

Candidate: You noted that we don't currently have connections to psychiatrists. This group prescribes half of the antidepressants. Can we launch the drug by only marketing to IMs and general practitioners and ignoring psychiatrists?

Interviewer: No, they are at the top of the pyramid of influence and thus must endorse the drug before their colleagues in the IMP/GP will endorse it.

Candidate: So if we are to market this product, we cannot do so without the Psychiatric group. The weight of the decision then becomes a matter of what is the most efficient and effective way to reach them—either through a newly hired sales force or with a co-marketing agreement.

Interviewer: Correct.

Candidate: What are the advantages and disadvantages of marketing the drug ourselves?

Interviewer: In terms of having our own sales force, the main benefit would be that we would be concentrating on our product only and this may help sales. On the downside however, the cost of this focus is all attributed completely to our product, and having a dedicated sales force representing only one product would be expensive.

Candidate: Do you have any other psychotherapeutic drugs in development or plans to expand this part of your portfolio through licensing?

Interviewer: Nothing is planned for the next three years.

Candidate: So by entering a co-marketing agreement, the costs of the sales force is spread across several products, and, if the co-marketer did not have a competing product, then our product would get the appropriate selling attention warranted. Also, since this sales force has existing relationships with the psychiatrists and doesn't need to take time to further establish these relationships, sales of our product might peak sooner. So, all in all, I would think that if we were to market this product, it would be a less costly and higher value option to enter into a co-marketing agreement rather than go it alone.

Commentator: Here, as with most case interviews, the Candidate has the opportunity to go "deep" into an issue. The Candidate has chosen to do this here with one type of cost, the sales force. The Interviewer is looking to see if the Candidate can identify some of the key "value" drivers of the function being explored. In the case of the sales force, the Candidate correctly identified the key value drivers as being:

- 1) The ability to spread the cost of a sales call across multiple products.
- 2) The ability to choose a co-marketer that needs this product in their existing product line.
- 3) The ability to leverage an existing psychiatric sales force infrastructure to reach peak sales sooner.

Remember, there are many value drivers. We have touched on a few, but don't be concerned about identifying the "right" ones, just try to identify what type of issues affect the situation the most.

Interviewer: OK, and what about the third option, to sell, license or swap the drug to a third party?

Candidate: Again, the client would want to choose the option that was more value creating. There could be several reasons for going with the third option:

- 1) We might sell our drug because the sum of the promotional or overhead costs may make it unprofitable for us to market whereas a company having a similar product line might be able to carry this product at a very small incremental cost.
- 2) We might license it for the same reasons we would sell it.
- 3) We might swap it if we could find a company needing this type of drug while having a drug that might fit more with our existing infrastructure.

In any case, for the options being considered, I would want to forecast cash flows and discount them back to see what option is more value creating before making a final recommendation.

Interviewer: OK, thank you for your input on how to approach this problem.

Commentator: You'll note here, that the Candidate doesn't actually make a final recommendation. This is fine. The Candidate has demonstrated how he would approach the problem, and in doing so, has hit on many of the key issues you would find in a real client case situation. Recapping the steps the Candidate took into evaluating the client's options:

On the revenue side:

- 1) Segmented the market to the appropriate technology level.
- 2) Determined that the segment was unattractive .
- 3) Determined that the client's product was not significantly differentiated.
- 4) Concluded that for these reasons, the revenue potential was limited.

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

On the cost side:

- 1) Determined that selling expense was a key component to profitability.
- 2) Determined that the Psychiatric group needed to be included in the selling efforts.
- 3) Determined that it would be less expensive to co-market vs. go it alone.
- 4) Determined that there are other considerations to evaluate when comparing co-marketing vs. selling, licensing, or swapping the product.

Interviewer: Provide summary comments and wrap-up.

Scotch Manufacturer

We have been contacted by a large distilled spirits manufacturing and marketing company to develop a new strategy for one of their brands.

Before getting into the details on this particular case, how would you define strategy?

- Participation
 - Geography
 - Customer
 - High-Level Product Segment
- Offering
 - Product
 - Service
- Pricing
 - Product
 - Service
- Operating Configuration (cost/asset)
- Distribution

What would be your process to develop a new strategy?

- Position Assessment (i.e. understand sources and drivers of profitability)
 - Business Profitability
 - Strategies
 - Market Economics
 - Competitive Position
- Alternative Identification
- Alternative Evaluation
- Business Plan

In the first meeting with the client to "scope out" the potential project, what might be some of the things that you would like to know?

- Ulterior motives for the work (are there politics involved)
- What other work have they done on the subject?
- What do they want to find out?
- How would they like to work together?
- Are there any time constraints?
- Who would they like involved in the project?
- Basic information on the brand (profit, volume, etc.)?
- Any hypotheses on the key issues?
- Any thoughts on the likely alternatives?
- Any key questions that have to be answered regardless of the strategy?

What might be some of the reasons that you would NOT want to accept this project?

- Politics
- Not committed to value

- Looking for scapegoats
- Inability to satisfy the BU manager
- Difficult client in general

Here is a little background information on the scotch industry

The first scotch was introduced in North America in the early 1940s, and grew steadily and rapidly in popularity until the 1960s. The industry has subsequently declined in volume every year to 1996 at a rate of about 3% per year. From 1996-1998, the volume declined at only 1% per year for these two years.

What kind of information would you want to understand in order to determine the reason for the steady volume decline up to 1996, explain the "kink" in the volume decline, and then forecast what market volume is likely to do over the next several years?

- Is the answer to slower growth explained by fewer people drinking scotch, or by drinking less overall, or both? (fewer people have been drinking scotch)

What kind of information would you want to understand in order to determine why fewer people have been drinking scotch?

- Demographics
 - Male versus female
 - Age of typical scotch drinkers
- Popularity
 - Substitute products
 - Health reasons

What kind of analysis would you complete to quantify the reduction in number of scotch drinkers?

- Review census work
- Complete literature searches
- Interview customers
- Interview distribution channel members
- Interview other producers
- Complete market research studies
- Review the client's information gathered over time

Here is some additional information on the scotch industry

Scotch consumption has been declining because fewer people have been drinking scotch. Fewer people have been drinking scotch for two reasons.

First is a general decline in the popularity of scotch. Other distilled spirits, such as vodka and wine have increased in volume and become more popular. Second is a decline in the age group that traditionally drinks scotch (the 35-50 age group). As the baby boomers age, this segment of the population is growing, so even if popularity doesn't change, the scotch market should improve going forward due to the growth in this segment. In addition, scotch is becoming more popular, especially the unique single malt scotches.

What information would you like to know about the industry, in general?

- How is the scotch market segmented?
 - There are three segments in the market, low-end (such as private label CVS whisky), premium (typically seen on the back bar in a bar), and super-premium (including Chivas Regal and single malt scotches).
- What are the sizes of the segments?
 - 40% of the volume in low-end, 50% in premium, and 10% in super premium.
- Is the scotch market profitable?
 - Yes, all segments are economically profitable.
- How is profit concentrated?
 - 20% in low-end, 60% in premium, 20% in super-premium.
- What are customer needs?
 - Taste (do people like the taste of the scotch -- either in blind taste tests or do they "think" one brand tastes better because it has a darker color, or is a more thick liquid, etc.)
 - Fashion (is it fashionable to drink)
 - Badge (does the brand make me feel important/different/mature/sophisticated)

Would you think that the scotch industry is profitable? Explain structurally, and elaborate

- High barriers to entry, takes a long time to establish a brand name in scotch
- People are very brand loyal and won't switch easily
- People think it's bad for your health and it's difficult to get them to start drinking
- People think it tastes bad and it's hard to acquire a taste for scotch
- Customers are not price sensitive
- Regulatory pressures are high (high taxes, it's expensive)
- Competitor intensity is not that high (little price based competition, noticeable, but not outrageous investment in advertising)
- As a result, overall, the industry is very profitable, but volume is declining, so profit is declining

What information would you like to know about the brand?

- What segments do we participate in?
 - Only in the premium segment and with one brand
- Where is our brand positioned?
 - Tied as the #2 brand with 25% market share of volume (#1 has 35%, #2 has 25%, we have 25%, #4 has 10%, others have 5%)
 - Priced slightly above the industry average (10%)
- How have competitors performed?
 - #1 has gained share from us, the #4 and other brands, but mostly from us
 - #2 has held share
- How profitable are we relative to competitors?
 - We all have same cost of goods, differences are in selling costs and advertising costs
 - #1 has highest selling costs and advertising costs, #2 has second, #3 has third, and so on
 - #1 and we have a price premium, #2 is priced at the industry average, #3 and all others are slightly below the industry average, but no one is dramatically different than the industry average

- #1 has a lower per unit profitability but has the most share of profit given its highest market share

What are your potential hypotheses that you would want to test to understand our relative performance?

- Customers perceive our brand as having poorer rankings on the key attributes
 - We have a disadvantaged taste, disadvantaged badge, but competitive fashion
- We do not have the same distribution/availability as competitors
 - We actually have advantaged distribution
- We are priced too high relative to our attributes
 - True
- Customers are not aware of our products (advertising awareness)
 - False, people remember our advertising
- Customers are not convinced to buy our product from our advertising (advertising effectiveness)
 - True, we have very poor advertising effectiveness

Why has our advertising effectiveness been poor?

- We don't spend enough
 - True, we spend about 25% too little money
- We don't spend in the right media
 - True, we spend a lot on billboards because they're cheap but they don't reach the right audiences
- We don't spend at the right time of the year
 - True, we spend a lot at Christmas to get the impulse buyers but we don't get the brand loyal buyers
- Our advertising copy is bad
 - True, we have had poor campaigns while the #1 brand has had very good campaigns

How would you determine how much money to spend on the advertising budget?

- Set a target number of customers to reach and a frequency target, and then back out the required investment to achieve the targets, based on the media used, time of year, quality of layout, etc.
- Spend as much as competitors
 - This would require a 100% increase in advertising investment
- Spend the same % of revenue as competitors, or set a % of revenue target
- Look at the competitors, index their advertising investment relative to the price premium they receive, and thus index our investment relative to the price premium we receive (in other words, #1 brand has a 10% price premium and invests \$10MM/year in advertising and the industry average is \$5MM/year. So they have 100% more advertising for a 10% price premium. We want a 0% price premium, so we'd invest at the industry average of \$5MM. Or, we want a 10% price discount, so we'd invest at ½ of the industry average, or only \$2.5MM per year)
- Continue current spending
- Spend a % of our cost structure

- Do a break-even analysis and spend up to where we are economically break-even

If our goal was to make money, and not necessarily to gain/maintain market share, what might be some alternatives?

- Reformulate the product to change its attributes
- Change pricing
- Reduce costs
- Change distribution
- Change advertising/promotion strategy
- Sell the brand
- Milk the brand

Which of these is likely to offer the greatest profit potential and why?

- Milk the brand
 - Because market volume is declining so much, we will never recover the advertising investment to turn around the brand (the best strategy).
- Sell the brand
 - Because market volume is declining so much, we will never recover the advertising investment to turn around the brand, and the value of the brand declines every year as the volume declines.
- Invest to build the brand
 - Convince other producers to spend on advertising so the entire industry convinces more people to drink scotch and all producers win. We could also encourage people to switch from wine/vodka/other drinks to drink scotch (e.g., link with cigars to appear more fashionable).

Which of these will be easiest for the company to implement and why?

- Is this the largest brand for the company? (i.e., if this brand declines, will the entire company decline?)
 - This brand is only a small part of the company's portfolio.
- Fit with other brand strategies (i.e., are all of the other brands in the portfolio growth brands so that this is the only declining brand?)
- Fit with management time and attention (is there so much time focused on fixing this brand that other brands suffer and offset the potential improvement in this brand?)
- Because market volume is declining so much, we will never recover the advertising investment necessary to turn around the brand, and the value of the brand declines every year as the volume declines
- Invest to build the brand
 - Convince other producers to spend on advertising so the entire industry convinces more people to drink scotch and all producers win. We could also encourage people to switch from wine/vodka/other drinks to drink scotch (e.g., link with cigars to appear more fashionable).

Regional Jet Corporation

Initial Handout for Interviewee:

Regional Jet Corporation is a U.S. manufacturer of regional airplanes-airplanes with 100 seats or less. Its business consists of two types of aircraft: (1) jet engine, 80 to100-seat aircraft and (2) propeller, 20 to 30-seat aircraft. In fiscal year 1999, Regional Jet delivered 100 jet engine aircraft and 150 props. This represented a unit volume increase year-over-year of 10% and 5%, respectively, and revenues of \$730 million and \$225, million, respectively.

Although overall profitability for Regional Jet in 1999 was a competitive 5% economic profit margin, profitability varied significantly by business.

The prop business generated a stellar 30% profit margin, while the jet engine business was unprofitable with a margin of 3%. Over the past several years, Regional Jet has experienced eroding profitability in its jet engine aircraft business. Its prop business, despite being profitable, has been flat in most recent years.

At a January 5th analyst conference (a meeting with the investor community) Regional Jet's senior management team announced that the company was committed to managing for value. To this end, Regional Jet has hired you and a team of consultants to help the company develop and implement the value-maximizing strategies for its businesses.

For our case discussion today, please focus on the jet engine aircraft business:

- How would you go about further analyzing this business?
- What recommendations would you like to make to senior management?

Regional Jet Corporation - Profitability by Business (1999)

	Jet Engine Aircraft Business		Propeller Aircraft Business	
	Amount (\$mm)	% of Total	Amount (\$mm)	% of Total
Revenues	\$730	100%	\$225	100%
COGS	\$(588)	(81)%	\$(86)	(38)%
SG&A	\$(84)	(12)%	\$(16)	(7)%
Delivery & Other	\$(42)	(6)%	\$(8)	(4)%
Taxes (40%)	\$(15)	(2)%	\$(46)	(20)%
Net Income	\$1	0%	\$69	31%
Capital Charge (10%)	\$(21)	(3)%	\$(3)	(1)%
Economic Profit	\$(20)	(3)%	\$66	30%

Note: Assume debt-to-total capital of 70%

Interviewer's Discussion Guide

Case Summary (for Interviewers only)

Regional Jet Corporation is losing money in one of its two business units: jet engine aircraft. However, the market for jet engine aircraft is profitable. Although Regional Jet has a parity

offering and operating position, it has a disadvantaged overall competitive position, driven by a pricing disadvantage in serving its large lessor customer segment. Lessors, in purchasing large volumes of aircraft, have been able to exert significant buying power over our client to achieve large price concessions.

Jet Engine Regional Aircraft Business

I. Market Economics

An "A" candidate should seek to understand market size, growth and profitability, as well as conduct an indirect structural assessment of the industry, e.g., suppliers, customers. Information to be provided to student if asked, although some may require prompting:

- **Market Size:** In 1999, the U.S. jet engine, 100 seat or less aircraft market was ~\$5 billion.
- **Competitors:** There is no dominant competitor in the jet engine, 100 seat or less market. The market leader has 20% market share. There are 4 other competitors with market share from 12% to 18%. Regional Jet Corporation has ~16% share.
- **Market Growth:** The market has been growing ~5% (in units delivered) each year for the past 5 years and is expected to continue to grow 5% over the next decade. In 1999, a total of 625 jet engine regional aircraft were delivered to customers.
- **Market Profitability:** Ask the student whether he/she thinks the market is profitable, and how he/she would go about assessing market profitability. (Answer to be provided post discussion on structural forces below):
 - **Supplier Power:** The supplier base for regional aircraft parts is highly fragmented and Regional Jet uses approximately 50% proprietary parts in its jet engine aircraft. Hence, supplier power is low.
 - **Intensity of Direct Competition:** Fairly concentrated market with only 6 jet engine regional aircraft manufacturers. Hence, intensity of direct competition is low-to-moderate.
 - **Customer Power:** In 1999, there were 225 customers. Types of customers include airlines, aircraft lessors, local and national governments, businesses and private individuals. Hence, customer power varies by segment.
 - .. Only if the student asks about customer power, share with him/her the following facts: Aircraft lessors (i.e., Regional Jet's aircraft customers who lease jets to airlines, governments, businesses and individuals) make large purchases (often 20 or more aircraft) during a buying cycle and hence exploit their negotiating leverage over manufacturers, such as Regional Jet. Hence, aircraft lessors have high customer power. All other customers have low-to-moderate buying power, depending on their credit worthiness.
 - **Intensity of Indirect Competition:** Larger commercial jets (100 seats or greater) with longer range manufactured by large commercial aerospace and aircraft manufacturers can be used on regional routes. However, these larger aircraft are expensive for customers to operate solely on a regional basis. Hence, intensity of indirect competition is low.
 - **Barriers to Entry:** Jet engine, regional aircraft manufacturing requires significant capital investment in production facilities and equipment, as well as strong relationships with various labor unions. Hence, barriers to entry are high.

- Based on the information provided thus far, ask the student if he/she thinks the market is profitable or unprofitable. The market is profitable with the average competitor generating 4% economic profit margins over the past 5 years.

II. Competitive Position

An "A" candidate should seek to understand competitors and Regional Jet's offering, pricing and operating position..

Information to be provided to student if asked, although some may require prompting:

- Offering position: Overall, the company's offering position is at parity.
 - Commonality: The company's jet engine aircraft has a cockpit that is similar to the industry standard and results in low switching costs for new customers (pilots and flight crew do not need extensive re-training).
- Performance: The company's aircraft offers a range of 500 miles, which is similar to the market average.
- Maintenance and Asset Life: The majority of the fragmented jet engine aircraft maintenance companies have the capabilities and parts to service Regional Jet's aircraft. For the aircraft customer, maintenance costs over the life of the asset is in line with regional jets of the company's competitors. On average, the life of the aircraft is 20 years.
- Pricing Position: Question for the student: Based on the discussion thus far, what does he/she think that the company's pricing position is relative to competitors? Answer: Regional Jet is pricing below the market average, since it is gaining market share (unit volume is growing at 10% vs. market growth of 5%) with a parity offering. Hence, Regional Jet is pricing for share, i.e., in 1999 it had a disadvantaged pricing position.
- Operating Position: Regional Jet's operating cost per aircraft is at parity with the industry. Every jet engine aircraft the company delivered in 1999 cost approximately the same to produce. The student should recognize that achieving scale is critical to the spreading of fixed costs, and hence, the lowering of per unit costs.

III. Regional Jets Customers

- Customer Segments: Regional Jet serves 3 types of jet engine aircraft customers:
 - Customers who purchase only 1 aircraft in a buying cycle (approximately every 5 to 15 years, depending on the customer)
 - Customers who purchase 3 aircraft, and
 - Customers who purchase 20 aircraft
- At this juncture, the student should inquire about customer segment profitability. Provide the student with the handout: "Jet Engine Regional Aircraft Business - Profitability by Customer
- Description of Segments:
 - Customers who buy only 1 aircraft during a buying cycle are comprised mostly of small aircraft customers with moderate-to-high credit risk.
 - Customers who buy 3 aircraft are comprised mostly of medium aircraft customers with moderate credit risk.
 - Customers who buy 20 aircraft are comprised of creditworthy aircraft lessors.

- **Key Driver of Segment Profitability:** If the student has not discussed it already, at this point in the case, he/she should recognize that the 3 aircraft lessors (i.e., Regional Jet's aircraft customers who lease jets to airlines, governments, businesses and individuals) in making large purchases (often 20 or more aircraft) during a buying cycle exploit their negotiating leverage over Regional Jet. The data to support this can be quickly calculated by the student by referencing the "Profitability by Customer Segment" handout: \$408M/60 aircraft = \$6.8M average sales dollars per aircraft from aircraft lessors, compared to \$8.4M to small aircraft customers and \$8.0M from medium aircraft customers. [Ask the student to compute average price by customer segment, if he/she has not done so without being prompted.] Of course, the student should be able to conclude that the main driver of profitability between segments is solely price without doing any math, since operating cost per aircraft produced and delivered is the same regardless of the intended customer.

IV. Overall Competitive Position

Question for the student: Does he/she think that the company's overall competitive position is advantaged, disadvantaged or at parity?

Answer: Regional Jet is competitively disadvantaged overall with negative profits (compared to a profitable market) driven by a disadvantaged pricing position, particularly to the large lessor customer segment.

V. Alternative Generation

Key Question: What are some strategy alternatives that Regional Jet can pursue in order to improve its jet engine aircraft profitability?

- **Potential alternative #1:** Aggressively pursue new small and medium, non-aircraft lessor customers and do not increase sales to existing aircraft lessor customers.
 - Ask the student what key questions he/she would seek to answer in the evaluation of this alternative. Key risks may include a slow road to profitability and unlikely to result in the doubling of the jet engine aircraft business' value. Ask the student to compute how long it would take for Regional Jet to double the economic profit of the business given the company acquires new small and medium, non aircraft lessor customers at the market growth rate of 5%.
- **Potential alternative #2:** Aggressively pursue new small and medium, non-aircraft lessor customers and do not serve any aircraft lessors.
 - Ask the student what key questions he/she would seek to answer in the evaluation of this alternative. Key risk may include the inability to achieve scale (currently at 100 units, with 60% of units purchased by aircraft lessors), and hence, profitability in any customer segment.
- **Potential alternative #3:** Regional Jet to increase its negotiating leverage vis-a-vis aircraft lessors by entering the aircraft leasing market.
 - Ask the student what key questions he/she would seek to answer in the evaluation of this alternative. [See discussion below]
- **Others?**

Potential Alternative #3: Enter the Aircraft Leasing Market

Some facts to share with the student:

- The jet engine, regional aircraft leasing market is large and growing
 - In 1999, the new aircraft leasing market represented almost 50% of all new aircraft delivered (with operating leases comprising half) and is expected to grow 5% per year.
- The aircraft leasing market is profitable with the average competitor generating ROEs of ~15% (cost of equity ~10%).
- Three aircraft lessors (also Regional Jet's customers) dominate the market with a combined share of 65%.
- The key driver of profitability is cost of funds.
- Regional Jet currently provides vendor- or manufacturer-financing on a very limited basis in the form of leases.
- Regional Jet would be at parity in terms of cost of funds.
- Regional Jet has marketing relationships with all aircraft end-users who are leasing their aircraft from the company's aircraft lessor customers. Regional Jet works with these end-users to help them configure the plane during the front end of the sales process.

Additional Handout for Interviewee

Jet Engine Regional Aircraft Business Per Aircraft Economics and Profitability by Customer Segment (1999) Per Aircraft Economics (1999)

(thousands)	Per Aircraft Cost
COGS	\$(5,880)
SG&A	\$(840)
Delivery & Other	\$(420)
Taxes	\$(504)
Capital Charge	\$(214)
Total Economic Cost	\$(7,858)

Profitability by Customer Segment

(millions)	Customers Who Buy 1 Aircraft	Customers Who Buy 3 Aircraft	Customers Who Buy 20 Aircraft
# of Customers	5	11	3
Revenues	\$42	\$280	\$408
COGS	\$(29)	\$(206)	\$(353)
SG&A	\$(4)	\$(29)	\$(50)
Delivery & Other	\$(2)	\$(15)	\$(25)
Taxes	\$(3)	\$(12)	0
Net Income	\$4	\$18	\$(20)
Capital Charge	\$(1)	\$(7)	\$(13)
Economic Profit	\$3	\$11	\$(33)
# of Aircraft Delivered	5	35	60
Share by Segment	2%	33%	50%

British Times

You're a new senior strategy associate and have just finished your orientation training. You are immediately assigned to our British Times team.

The British Times is an upscale, highly respected newspaper. It is the most widely read newspaper in Great Britain, especially its very strong business and financial section. The paper is a cross between the Wall Street Journal and the New York Times, both in content as well as in reputation.

The team has already had one meeting with the newspaper's online spin-off: BritishTimes.com. You are going to join the team for the second meeting, which will be held with only the CEO of the BritishTimes.com. Currently, their web site is nothing more than an online version of the newspaper, otherwise called brochureware.

The newspaper's and the web spin-off's single biggest asset is the highly respected brand name: British Times. The purpose of this second meeting is for the consulting team to present its response to the CEO's current predicament: how to realize greater revenues from their current online spin-off (BritishTimes.com).

Company Background:

Your team has provided you with the following information as background about BritishTimes.com:

- BritishTimes.com conducted a viewer survey, receiving a high enough number of responses to be statistically significant, allowing them to feel comfortable using the following information for planning purposes.
 - Their web site has a large number of hits, only 30% fewer unique visitors than the number 1 site in the UK.
 - Their hits are from viewers in the 75th percentile of customer income.
 - Their viewers are also highly educated: 60% have a university education and 30% of whom have graduate degrees.
- BritishTimes.com is a spin-off from the newspaper.
 - However, the same parent corporation owns both.
 - The CEO of the dot-com does not report to the CEO of the newspaper.
 - The dot-com CEO has worked for the newspaper for a long time and knows its operations well.
- The brand name is very strong in the UK, but not outside.
 - The newspaper's content is primarily focused on the UK, but it does have an international section.
 - The CEO wants the dot-com to use the newspaper's content and brand, but otherwise has no need to connect to the newspaper.

Your Challenge:

Create 3 or more ideas for the BritishTimes.com company to increase their revenue through their Internet strategy.

Possible Solution:

Candidate: In general, it's fair to say that the bulk of Internet revenues comes from three sources: advertising, subscriptions, and transactions. I think that the key to helping the CEO is to tailor these initiatives to British Times.com core assets.

[Great way to start. The candidate did not try to use an ill-fitting framework such as 3Cs or 5 forces to approach this case. Instead he's showing a good understanding of the Internet's major sources of revenues. He also acknowledges that further discussion of the company's core assets is critical to formulating a robust solution.]

Interviewer: Good points. Can you give me more details on each of these sources of revenues?

Candidate: Well let's look at advertising first. We could suggest two avenues: banner ads and corporate sponsorship. Upscale or corporate banner ads such as insurance companies, banks, or brokerage firms would make a lot of sense with our audience. They are highly educated and more importantly, have the highest level of disposable income. In addition to banner ads, we should look into corporate sponsorship. We should take full advantage of the fact that the strong business section can obtain corporate sponsorships; for example, banks or e-trade companies pay for their section of the site.

[Well-structured answer. The candidate is using the case facts to support his answer.]

Interviewer: Good. They do some of that already but probably not as much as they could. You also mentioned other sources of revenues. Could you explain your subscription model?

Candidate: We could imagine a three-tier approach. For example, in tier 1, readers could have access to today's news for free. For a small fee, Tier 2 subscribers could research up to one-week-old articles in the archive. Finally, in the last tier, subscribers could have access to the entire archive.

Interviewer: Coming from a traditional publishing company, they are fairly familiar with these two models. I would be interested in hearing more about your third option.

Candidate: One way to "monetize" their attractive audience would be by offering targeted products and services. Some examples could be a tollbooth model similar to Amazon Z shop concept or selling tabs on their site. This would clearly require a deep analysis of the competitive landscape and of the company's capability (technical, people...) to start a completely new line of business. These products or services would have to be:

- High margin,
- Upscale,
- Highly profitable vertical businesses; for instance: golf store, tax advice, investment advice, upscale travel (cruises, etc.)

Interviewer: Golf equipment? This is interesting. How would you go about sizing the market for golf equipment in the UK?

[The interviewer decides to test the candidate's ability to do some real time analysis, to articulate a methodology, and to make reasonable and explicit assumptions in order to arrive at a ballpark

estimate. Here the interviewer could have chosen to discuss more in detail how the candidate would have thought about launching a completely new line of service.]

Candidate: To determine the golf store's (equipment only) first year total revenue, we would have to figure out the following:

- The population of the UK
- The percentage connected to the Internet in the UK
- The number who browse this site
- The number who browse the golf store
- The number who buy from this site: the buy to browse ratio
- The average amount spent per transaction
- The number of times they buy per year
- The commission received by BritishTimes.com

There are approximately 60 million people living in the UK. If we assume that a third of them are connected to the Internet, we have: $60M \times 1/3 = 20M$

[It's always a good idea to take numbers that are easy to manipulate. Do not hesitate to round up the number to help your calculations. The examiner is not looking for an accurate answer.]

If we assume that 20% of the people connected will visit the British Times site, we now have:
 $20M \times 20\% = 4$ million visitors

Not all of them will click on the golf site. Probably about 20% will do. We can now estimate the number of people browsing the golf site:

$4M \times 20\% = 800,000$ visitors

If we assume that only 10% of them will actually purchase on the site, we now have:

$800,000 \times 10\% = 80,000$ buyers.

Each buyer may spend on average \$100 each time they visit and they may visit the site 2 times each year.

If we assume a 5% margin, we now have a rough idea of the golf equipment first year revenues:

$80,000 \times \$100 \times 2 \times 5\% = \$800,000$

Children Clothes E-Retailer

It's a Friday afternoon. You've just accepted an offer to join our consulting company as a Senior Associate in the Business Strategy Competency. You've just called in to confirm your start time on your first day and find out you have an excellent opportunity to be the lead business strategist on a high profile project. We have partnered with a leading bricks-and-mortar children's apparel retailer to help them analyze, design, and build their Internet strategy. There will be a kick-off meeting for the project with the client (including the client's CEO) on Monday morning. The Principal/Engagement Leader on this project has asked you to lead a discussion about how the client should think about opportunities on the Internet. Right now, the client only has a marketing and informational presence on the web (a.k.a. "brochureware"). The Principal/Engagement Leader wants the client to think about the range of opportunities and challenges the Internet presents and whether the client should invest aggressively in pursuing any initiatives.

Company Background:

- The client's web site and some associated articles found on the Internet have provided the following information.
- The client is a publicly traded company with a \$3B market cap. The share price has risen from \$15 to \$45 in the past 12 months.
- The client has 300 stores, mostly east of the Mississippi, and all stores are within the U.S.
- Revenues are approximately \$250M, and the firm has average profitability for its industry.
- The client has been on a rapid store expansion program adding about 25 new stores each quarter for the past two years. They claim to expect similar growth going forward.
- The market for this client is clothing for children 12 and under. Sales are roughly split between boys and girls.
- The company is vertically integrated: It designs all its own products, has deep relationships with contract manufacturers in Asia, and distributes all of its products through company owned stores.
- The company sells a high quality product that is priced about 25-30% lower than its chief competitors.
- The company has done only limited marketing. The brand remains relatively unknown.

Your Challenge:

- Plan for the client meeting. Structure the problem at hand. What questions would you ask?
- Then, work with your interviewer to explore and broaden those questions and brainstorm the client's hypothetical responses.

Possible Approach:

To present the best solution, the candidate must have a better understanding of the customers, the competitors and the client. Some of the important questions to ask are:

Market and Competitive Landscape:

- What are the main trends and dynamics going on in the client's industry?
- What are their competitors doing?

- Who are they?
- What are the brick-and-mortar children's apparel retailers doing?
 - How are they using the Internet: Has there been a direct causal relationship to their revenues and/or expenses from their Internet strategy and implementation?
- What are the Internet pure play apparel retailers doing?
- Who could some of the oblique or peripheral competitors be?
- Would they be likely to enter the market?

Customers:

- Who are the client's customers?
- What is the value proposition to the client?
- What are the trends in the customer base over time?

Client:

- What are the client's goals?
- To increase revenues? To reduce costs? To increase market capitalization?
- How could different Internet initiatives accomplish each of these goals?
- Are these the right goals for the client to have?
- What are the client's organizational capabilities?
- Are they capable of supporting an Internet initiative with the existing culture? Talent? IT infrastructure, legacy, processes? Operational structure, processes, procedures, policies? Accounting processes?

[The goal of the interviewer is to assess the candidate's ability to analyze and develop questions for the client to answer. The interviewer will often play the devil's advocate and challenge the hypothesis the candidate generates.]

Quantitative Analysis:

After spending part of the weekend preparing for your kick-off meeting and discussion facilitation, you check your voicemail from the airport before hopping onto the shuttle on your way to the client's office for the meeting. The one new message is from your Principal/Engagement Leader asking you to provide an estimate of the size of today's online component of domestic children's apparel sales and how large it might grow in the next 5 years. As you step onto the plane, you realize that you'll have no access to the Internet or other research before the meeting starts. Instead, you will need to create a "back-of-the-envelope" analysis on the plane.

Your Challenge:

Spend about 5 minutes creating an answer to these two questions:

- What would you estimate the size of today's online component of domestic children's apparel sales today?
- How large do you think it will grow in the next 5 years?

[The point of this scenario is to test the candidate's ability to do some real time analysis, to articulate a methodology, and to make reasonable and explicit assumptions in order to arrive at a ballpark estimate.]

Possible Response

Assume the children's apparel category is dollars spent on clothes for kids ages 12 and under, as stated in the case facts.

There are approximately 275M people in the U.S., perhaps 15% are under 12.

$275M \times 15\% =$ approximately 40M kids under the age of 12.

Assume the average parents spend \$250 on each kid age 12 or under each year.

$40M \text{ kids} \times \$250 =$ \$10B children's apparel industry for kids 12 and under.

Of the people who spend this \$10B, assume 35% of them have Internet access and have the potential to shop online.

Therefore, the theoretical current maximum potential size of the market is \$3.5B.

However, just because people use their online access to buy their kids' clothes doesn't mean they spent all \$250 for each child online for their apparel. In fact, only a small fraction of those dollars are spent online today, perhaps 5% (a.k.a. share of wallet).

$5\% \times \$3.5B =$ \$175M

(which is not too far off the actual estimate of \$130M in 1999-Forrester Report)

In the next five years, let's assume the number of kids increases to 42M, average spending goes to \$300 per kid age 12 and under, Internet access rises to 55% and share of wallet rises to 20%.

The 5-year growth estimate would be: $42M \text{ kids} \times \$300/\text{kid} \times 55\% \times 20\% =$ \$1.4B

(which is not too far off the Forrester estimate of \$1.6B).

Consumer Products

It's Monday morning and as a new Principal/Engagement Leader, you've just gotten a call from a well known and respected French-based Consumer Products company. The company has offices in the US and has been selling through traditional channels throughout its history. It designs and manufactures plastic products like pens, pencils, disposable razors, etc. It's an old company that's been around for about 60 years and wants to take advantage of the Internet, starting with the US sales.

Company Background

You talked at length with the President of the dot-com part of the company and this is what you learned:

- This company now wants to sell directly to consumers through their Internet site.
- Their current online business is nothing more than a small catalog and is not doing very well: sales and hits are less than expected. It offers:
 - More convenience than their other channels. It is open 24x7 and has more product information.
 - But, limited selection: only high margin items.
- The President's strategy is to add key functionality to the online business to increase the hit rate and improve revenue.
- She reports directly to the CEO
- She wants your consulting team to create:
 - A multi-ship-to-functionality,
 - A site-wide search functionality,
 - An ability to add checkout sales (e.g. impulse buy items similar to end caps in grocery stores next to the register).
- She wants your consulting team to build this immediately.

Your Challenge:

This coming Thursday, you will meet with the President and her team. Her expectation is that you will present a plan for your consulting team to build the functionality ASAP.

- What will you do on Monday?
- What will you prepare?
- What questions will you ask the President?
- What is your goal for that meeting?

Candidate Response:

There are many ways to answer this challenge, but the candidate should at least know not to accept the client at face value, realizing that the functionality the President wants will not materially improve the hit rate or revenue, at least as far as the information provided indicates.

The candidate should want to create a conversation with the President and her team to present the plan for delivering the functionality (or state that there is a plan), primarily to gather additional information to better understand the online company's business issues and goals. In other words, the candidate should want to open the eyes of the President and her team through questioning.

The candidate will want to offer the notion that the additional functionality will not solve the pressing problem.

The candidate's questioning of the President should follow a logic path that includes asking about the value proposition of the line store; for instance:

- Who is the store trying to target?
- What is the store's value to the customer—its real offering (e.g. convenience, price, selection)?
- Why is it a unique and attractive offering?
- How will the online store deliver on the promise?

The Video Store near HBS

Two business school classmates laud their entrepreneurship intentions and mock your interest in entering the management consulting industry. They decide that despite trends that indicate otherwise, what is needed is a video rental store closer to the HBS campus.

They try to convince you to join, but in your infinite wisdom you instead join a prominent strategy consulting firm in Boston.

Their first two years meet unprecedented success. They buy matching Porches and a townhouse in Beacon Hill. Needless to say, each time you meet up for social occasions, they share with you (mostly with tongue in cheek) their success and an "I told you so" attitude. You handle their jobs well, as you feel you have had a terrific experience at your consulting firm.

The story, however, changes in about 12 months. Despite two and a half years of dramatic profit and revenue growth, profits have dramatically fallen. They call you (with a fair amount of egg on their face) and say "we don't know what happened and our mortgage and car payments are getting tougher to meet. Can you help us? We know that you help CEO's of large companies get to the bottom of their issues." With more than a little satisfaction and justice in your voice you agree to help. What do you think the problem is?

Suggested Questions:

This is an example of a case where the student must probe to get to the heart of the matter. The student needs to ask questions which first diagnose the situation and then (and only then) talk about causes of the situation and then (and only then) talk about areas of improvement.

Here are questions that the student should ask to get to the analysis that will help them diagnose the problem:

- Have costs increased?
- Have revenues declined?
- Have prices been changed?
- Have new video stores opened in the area?
- Are fewer customers coming to the store?
- Are customers renting fewer videos?
- Have other entertainment venues opened in the area?
- Have there been economic changes in the area?

These key questions will get behind what is happening (competitive changes, pricing adjustments, macro factors, people not coming to the store, or people just not renting as many videos, etc.)

Suggested "Excellent" Response:

This is an example of a case that is founded in 3C's type issues. The student has to diagnose the problem and find out what exactly is going on and then find out what is causing it. This is how efficient analysis is performed:

Candidate: If profits have declined then I assume that either revenues have declined or costs have increased, what is the case?

Interviewer: Revenues have decreased.

Candidate: Why would you think that cost is probably not the problem?

Interviewer: Video rental is a high fixed cost business - rent, videos, and labor are all fixed in the context of rental revenue. Thus, the business' profits will be susceptible to changes in revenues (capacity utilization). Revenues are made up of the number of videos we rent in a year and the price we charge.

Candidate: Has the management changed the price of the videos?

Interviewer: No. What does that tell you?

Candidate: That means that either fewer customers are coming to the store or each customer on average is renting fewer videos. Which is it?

Interviewer: How would you figure that out?

Candidate: The security system probably has a counter so that could tell us store traffic, and clearly the register receipts could give us number of videos rented per day. We can look at that data last year versus this year and determine whether there is a traffic problem or share of wallet problem.

Interviewer: Excellent. If you found out it was a share of wallet problem, what would you think might be the problem?

Candidate: Share of wallet problems are often driven by internal execution problems (bad selection, poor service, etc) whereas, traffic is often external (or market) problems.

Interviewer: Again, excellent. The data shows that traffic has fallen. What now?

[Here the student should begin to think about hypothesis development. They have diagnosed the problem... i.e. fewer customers are coming into the store.]

Candidate: If traffic has fallen, it is either a macro factor or a competitive situation. My inclination is that video rentals are not that impacted by economic factors, so it is probably a competitive situation. Has a new store opened in the area?

Interviewer: No.

Candidate: Has a new movie theatre opened?

Interviewer: No.

Candidate: Hmm... That is surprising. I was sure that this was a competitive situation and we have a fixed pool of rental community (or movie interested community) and that once a new store opened regardless of how good it was, it took share from my client's store.

Interviewer: Let me ask you something and maybe this will help you along. What business is your client in?

Candidate: They are in the video rental business or the entertainment business or leisure business... I see there could be other entertainment preference shifts or options, etc.

Interviewer: That is good intuition, but have you fully defined your client's business? What does your client do? What purpose to they serve?

Candidate: They rent movies for people to watch at home. They are in the home entertainment business and specifically in the home movie entertainment business. That means that the competitive set is anybody who provides movies in the home. Not just video stores.

Interviewer: Excellent. What do you think is going on?

[Here the student has now diagnosed the problem and can make a very good hypothesis that either delivery, cable, PPV, or new Movie on Demand technology has infiltrated the market or is experiencing rapid growth, reducing the market size for video rentals at stores.]

Summary Comments

There is no one right way to approach cases. Structure your case interviews to (1) perform structured analysis and fact gathering to properly diagnose the problem; (2) share your logic and hypothesis whenever you can; (3) drive to an answer/assessment.

The English Church

Assume you are the new pastor of a rural English church in the late nineteenth century. Over the last three years, attendance has been declining. Your boss has just come to town to tell you that she is considering shutting down the church. You have two weeks to diagnose the problem and come up with possible solutions. How would you think through what these problems might be and the possible solutions?

Suggested Sample Response:

There are many potential reasons why the churchgoers of the parish have stopped going to church. First, I will talk about the possibility of competitive churches; secondly, I will talk about the possibility that people in the area have simply stopped going to church.

There is the possibility of competing churches. There are two reasons why competing churches could be taking our parishioners away: better location, better religion, or better services. I remember from my history classes in college that some churches were located far away from pockets of the population, and churchgoers often would establish churches closer to home. Also, sometimes people change what they believe or new ways of thinking emerge. This could also be driving people to other churches.

I would also want to figure out if the nearby churches are preaching different religions. There is at least a chance that these churches are offering parishioners a different kind of religious viewpoint that is more attractive than the religion we have been preaching.

Their rules regarding behavior, for instance, may be different from ours.

Lastly, I would want to understand the different services being offered at "competing" churches. There may be different value that these other churches offer that we do not. For instance, these churches might provide childcare, adult education and job training, or singles dances. These churches may offer more personal attention and guidance from the pastors.

I will also talk about the possibility that people who live in the area around the church simply may have stopped going to church. Off the top of my head, I can think of two reasons why people may stop going to church: progress and inconvenience. As science and communication advance, people may rely less on the church to explain the world and more on scientific findings and written forms of communication such as books and newspapers. This could be happening in our parish. On the other hand, going to church may be becoming inconvenient or economically nonviable.

Maybe our parishioners feel that they need to stay at home to work in the fields in order to maintain subsistence. I would want to talk to these parishioners to find out why they have stopped going to church

There are many ways I could test my hypotheses. I think the most important thing is to talk to the former parishioners to ask them why they have left the church and what we would need to do to

entice them back. After that, I would want to send someone (or myself) to the other churches in the area during services to understand what is being preached at these churches. To help prove if the issue is location,

I would draw a map of our current and former parishioners and analyze how distance from the church affects attendance. To understand if there are other churches in the area taking away our parishioners, I would also map these new churches on my newly created map.

Once I understand why people are leaving, I would devise a plan to bring the parishioners back. I would want to be focused on the needs of my parish, by offering enhanced services, such as day care as well as flexibility, such as offering services at different times of the day. If distance is a factor, I may want to consider having services at different locations at different times, making our church more accessible.

Summary Comments

This would be a very good answer. The candidate came up with a number of hypotheses, identified ways to test those hypotheses, and formulated an action plan to address the issues. This answer shows thoughtfulness, creativity, and structured thinking. While there may be some issues that this candidate did not identify, he/she does a good job structuring a comprehensive answer. For a 3Cs answer to be good, a candidate does not have to address every single issue.

HBS as a Business

You are Dean Clark. A wealthy benefactor has come to you with the news that she will give HBS \$100 million. The grant is contingent, however, upon you using the money effectively. You have 1 week to propose to the benefactor where you would use the money before she will finalize the transfer. How would you, as Dean Clark, propose to use this money?

Suggested Sample Response:

First, as Dean Clark, I need to think through what does spending the money effectively mean? This is a not-for-profit learning institution, but that does not mean that it is not a business. For Dean Clark to be successful, he needs to understand what drives his business and where he can achieve the biggest return for his investment.

There are currently 4 major "business units" that provide a revenue stream for HBS. These include:

- MBA program
- Executive Education program
- Publishing
- Grants and donations

While there are many budding initiatives, including distance learning, these are the four largest sources of revenue.

If you rank the relative profitability of these revenue streams, you would likely find that the least profitable of the four is-the MBA program.

Publishing is a very profitable business but it seems to have high reliance on the education business. Executive Education is very profitable, as the fees charged to the executives are quite large when compared to the length of program. Grants and donations are virtually pure profit. At first glance one might conclude that HBS should focus their resources and efforts on the highest return areas of securing grants, publishing and expanding the Executive Education program. It would follow then, that the MBA program would fall as the lowest priority for resource allocation.

That would be an incorrect conjecture, however. Consider what draws people to the executive education program, for example. The brand cache of HBS drives the attendance and enables the price premium. Similarly for publishing, the value of the HBS brand provides the credibility behind the content and drives sales. So what drives the HBS brand? Clearly it is the MBA program.

Dean Clark must focus on maintaining the reputation of HBS as the premier MBA program to attract the best and brightest professors and students. It is then the academic and professional work of these people that contributes to the integrity and value of the brand. Obviously the professors publish, hence enabling that revenue stream. The MBA students graduate and achieve notable success, further driving the brand. Finally, the alumni are responsible, to a large extent, for the grants and donations that HBS receives.

In the end, the MBA program effectively ties in every other revenue stream both directly and via the resulting brand cache. Clearly the \$100 million is best spent on the MBA program.

Summary Comments

This is not a particularly difficult case but it does assess the candidate's ability to think through the school as a business and reason through to the underlying driver of that business. A superb candidate will need little to no prompting to think through this case in its entirety.

Fast Food Profitability

Six months out of HBS, a frustrated classmate calls you to complain that the fast food burger joint that he bought has been steadily losing money for the last 3 months. He wants to know what you think he should do about it. Where do you start?

Suggested Questions:

This is an example of a case where virtually no information is provided and the student needs to take a minute to figure out where to start probing. In this type of case, the student is evaluated based on the number of factors questioned up front plus the ability to logically pare down that list to get at the heart of the matter.

Here are some of the initial questions the student should ask:

- Have revenues decreased?
- Have costs increased?
- Have prices increased?
- Was the store making money 3 months ago? What has changed?
- Is there new competition?
- Has there been a major economic change in the area?
- Was there a major event like someone getting sick? Health code violation? Crime?

These answers will help to frame the extent of the required analysis.

Suggested "Excellent" Response:

Candidate: What do you mean by "losing money"? Have profits declined or is the business in the red?

Interviewer: Profits have declined.

Candidate: Have revenues decreased? Costs increased? or both?

Interviewer: Revenues have decreased.

Candidate: If revenues have decreased, there are either fewer paying customers or the customers are spending less when they visit. Which is the case?

Interviewer: While they could both play a role, in this case, there are actually fewer customers. Fewer customers could be due to external factors like new competition, change in eating habits, local changes like a major business closing in the area. There are also internal factors to consider such as poor food quality, higher prices, or a major event like someone getting sick or a health code violation.

Candidate: Recognizing that there are likely many factors involved, is the issue primarily internal or external?

Interviewer: The issue is external and is driven by a new competitor that opened across the street.

This new competitor must be offering a better value to have made such an impact on the burger joint.

Candidate: What is their value proposition? Are they offering a different type of food? Is it better quality? Is there a price disparity?

Interviewer: They serve chicken dinners and appear to offer a completely different experience. How would you get a deeper understanding of their value proposition?

Candidate: First, I would visit and learn everything that I can from what I see and experience first hand. How is the quality of the food? Are the prices reasonable? Do they offer healthier options and more variety? How is the service? Cleanliness? How is the facility laid out? Do they have more parking? Easier access? Once I get a first hand view of the competition, I would take a hard look at the burger business and the value proposition they are offering. The same questions would apply.

Candidate: Next, I would do some primary research including customer interviews at both locations. The focus of these interviews is to discern the differences in perception between the two locations. I would pay some customers to go to each restaurant and rate the food and experience. I would also determine how many of the customers are former burger customers but now are exclusively chicken customers, versus how many visit both, and how many are completely new to the chicken place but would not visit the burger restaurant.

Candidate: Armed with the data on what customers' value, I would then create a set of options to evaluate. There are likely a number of areas that need improvement including new menu options, improved facility layout, better taste/quality. Which will drive most traffic back into the restaurant fastest? Which give the largest return on investment? After analyzing the alternatives based on the chosen criteria, I would prioritize them and develop an action plan to include timing and responsibilities.

[At this point, the case could go in several directions from leadership and project management issues, to brand marketing and promotion, to financial decisions about whether to close the facility.]

Summary Comments:

This type of case can be very intimidating since it is broad and ill-defined. The interviewer may not provide much guidance or detail; increasing the stress level. When faced with an interview of this type, the student should try to remain calm and methodical. Writing down the alternatives and crossing them out as they are ruled out is a good way to show their thought process.

Thinking aloud is encouraged. The student should take a little time in the beginning to frame the issue so as not to develop a hasty hypothesis and head down the wrong path.

Automobile Product-design

The director of marketing at an automobile manufacturer suggests changing the current design, where two separate keys operate the ignition and the doors to a design where one key operates all lock mechanisms. How do you think about whether this a good idea or not?

Suggested Sample Response:

The goal of any business including automobiles is profit throughput that can be measured by the Net Present Value impact of the proposed change.

For the proposed change to have a positive impact on profit throughput, the change must be a net positive of change in cost structure or product demand weighed against the investment needed to implement the change. An expanding of demand in this case must come from the product meeting customer needs better than the direct competition or substitutes. Customer needs that this product may address are simplicity, security, and cost of ownership (related to security). One should also consider if the improvement is defensible or would be easily copied.

For cost structure, the relative expense of using what is assumed to be the more complex locking mechanism of the ignition on the door and trunk (assumed 5 locks that would be more complex) would have to be weighed against the reduced cost of developing or purchasing separate key and lock mechanisms. As most automobile manufacturers are very large, it is assumed that the simpler locking mechanism needed for the doors could be reused across many product lines or purchased from large parts suppliers who supply the industry as whole and the development cost of a separate locking mechanism would be low.

Therefore, the change in cost structure will be driven by the relative cost difference of buying 6 complex locking mechanisms vs. 5 simple locking mechanisms and 1 complex mechanism. It is assumed that a more complex locking mechanism is needed for the ignition. Therefore, the hypothesis is that the net change of cost position is negative. It is also assumed that the market power of buying more complex locking mechanism would not significantly impact the price charged by suppliers or cost basis if developed internally. This hypothesis would be easy to check by looking at the relative cost position of the different locking mechanisms and the discount structure available for mass purchasing the various locking mechanisms.

On the demand generation side, the product would have to create a net positive in demand across the customer needs of simplicity, security, and cost of ownership. The fact that the marketing director suggested this change hints at the fact that customers may demand the increased simplicity of only carrying one key. This does not seem intuitively true as the two keys are almost always carried on the same key ring so the relative improvement to simplicity is probably minimal.

For security, there are two factors to consider, the theft of valuables in the car and the car itself. If more complex locking systems were to improve the security to valuables, then the value of going with the more complex locking system on the doors of the car may be a positive. The assumption, however, is this is not the case as door locks are typically compromised not by

picking the lock but by compromising the areas around the lock (i.e. Slim Jim). Also, security systems, which are becoming more common on cars, mute the affect of a more complex locking mechanism, as the key lock mechanism becomes the non-primary mode of defense. I do not see how moving to one key would impact the chance of theft of the entire car, as in either case the same locking mechanism would have to be beaten. This also means the cost of ownership, which could have increased if the change of car theft increased due to insurance premiums, would exhibit no affect.

The customer reaction to a single key mechanism could be tested through surveying or product pilots where a sample set of customers are given actual cars with one key and asked to gauge their reaction. Or larger regional pilots could be run and the change in demand affect measured. The investment required to implement the change of eliminating a separate key and lock for the doors and ignition is assumed to be minimal as key locking mechanisms are fairly standardized and the ignition key lock, which is probably more complex, could be transferred to the doors and trunk with minimal amount of rework of the parts assembly infrastructure for building the auto. The primary investment cost would then be the cost of piloting or surveying for the increase in customer demand by implementing the change. Surveying and piloting costs can be significant, but it is assumed a cheaper survey would suffice in this case to gauge demand so investment costs would be minimal.

Three final possible points to consider on demand generation. One, an increase in demand is necessary but not sufficient to improve profit throughput, as the company also needs to be able to meet the new demand generated. As auto manufactures almost always have an excess of capacity, this is not an issue. Two, even if this change was beneficial it could be easily copied by competitors and it is assumed that the change would not provide any lasting brand advantage in the customers mind or raise the demand of the sector as a whole.

Therefore, in the long run, the cost reduction benefits would override the decision to go forward and we have already argued the affect would be negative. A final factor that should be considered is the assumption that the majority of cars sold in the US in the past have included two keys and the two keys have most likely generated a lot of unanticipated use that may be hard to anticipate that might cause customers to reject the change. So, from a customer perspective, I would want to see the demand for this from customers to be strong and the benefits large before implementing a change.

Because it does not appear the proposed change would positively impact cost position or increase demand significantly, the recommendation is against the proposed change. I recommend even against investing to gauge customer demand as the long run benefit would be in cost position and the assumption here is that the affect is negative.

Summary Comments

This candidate starts with a framework and works through to a hypothesis and how the answer might be tested. All the customer factors or cost impact that could be considered are obviously not included, the interviewer should look for a structured presentation that arrives at a hypothesis with ideas how to test and a proposed answer.

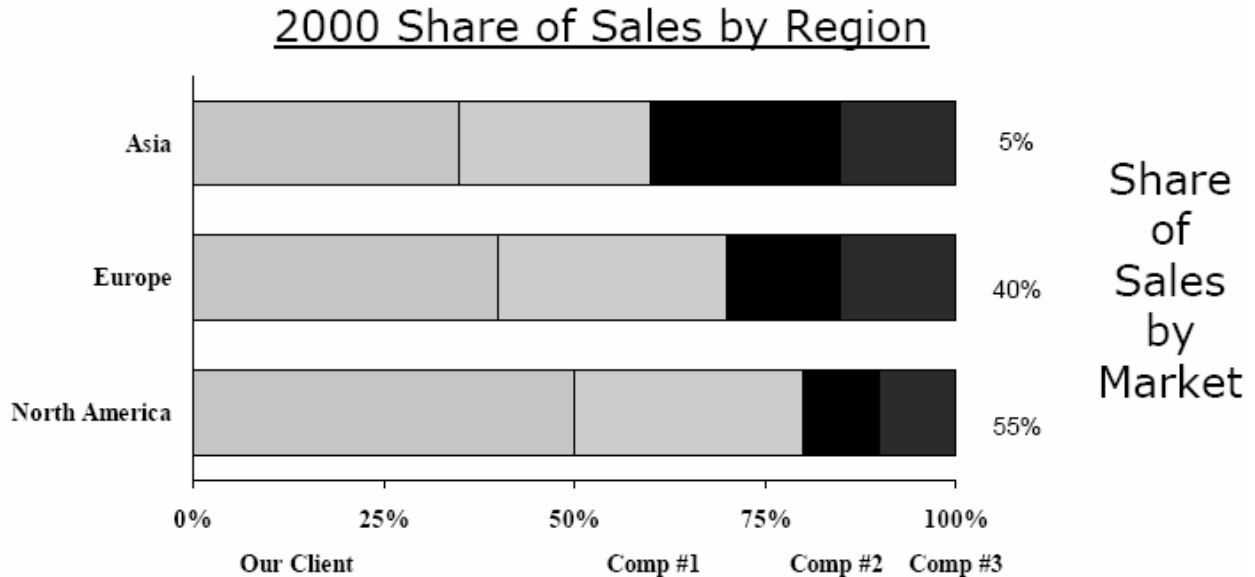
From Kellogg's case-book

Food Wholesaling Case

Our client is an established food wholesaler that is trying to increase profitability

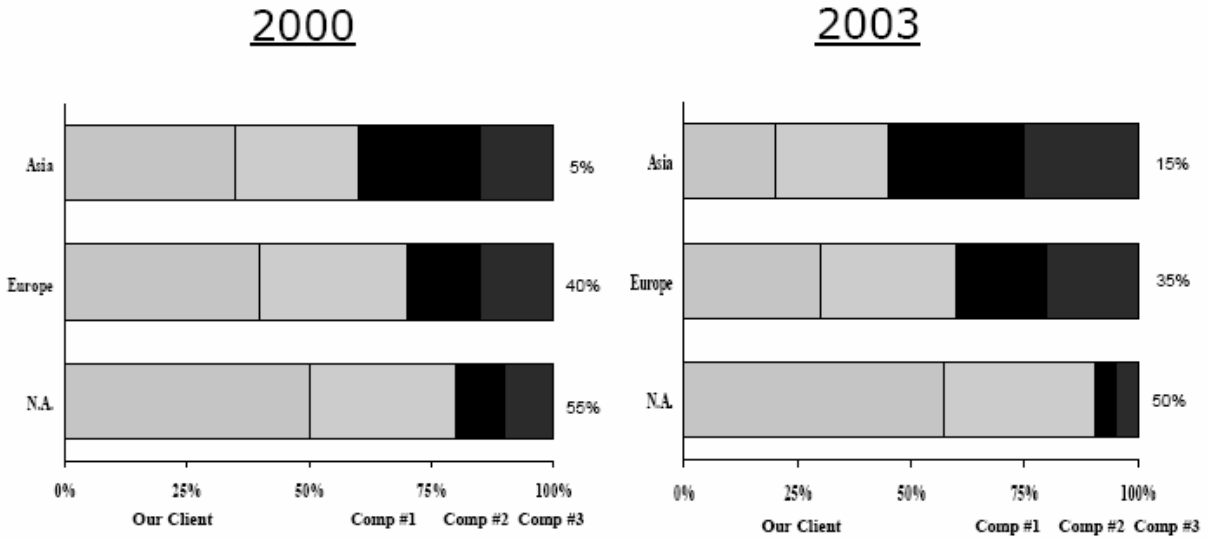
- The situation is that our client is a wholesaler of a variety of different food items.
- The client has a steady stream of business and is already profitable, but is looking to unlock more profitability from its existing lines of business.
- The question is: how can they best increase profitability from their existing businesses?
- The client is a leader in an established, mature industry
- Industry Characteristics/Market Economics
 - Growing at the rate of GDP
 - Significant barriers to entry
 - no new competitors have entered the market in the last several years
- Client Characteristics
 - Client is currently the industry market share leader
 - Margins are good, but depend on product line
 - Offers a range of high-end and low-end food products
 - Consumers are high and low-end hotels and restaurants
- Competitive Dynamics
 - The dynamics (duopoly vs. fragmented industry) depend on the region, but there are key competitors in each region

The client's position in the year 2000 was that its sales came from Asia, Europe, and North America:



- What observations can be made from this graph?
- What would you expect to happen in three years?

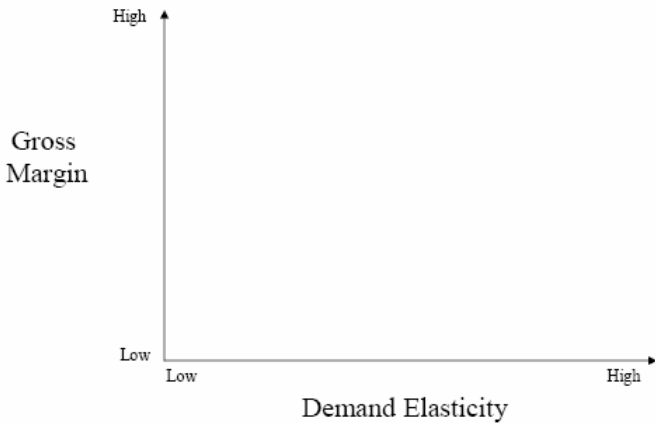
The client's position in the year 2000 is now shown side-by-side with its 2003 position:



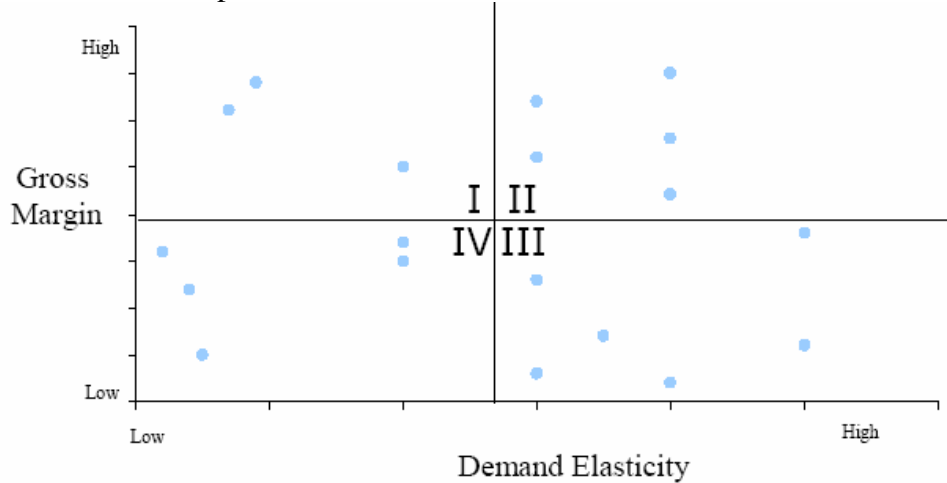
The client is trying to figure out which exogenous factor is driving the gross margins of its individual products. If we have a graph with gross margin on the y-axis, what would go on the x-axis?



The client now wants to know how demand elasticity will affect the gross margins of its individual products. What should the graph look like?



It turns out that demand elasticity and gross margin do not have the inverse linear relationship that we would expect



- What observations can you make from this graph?
- What should the client’s new strategy be in each of the four graph quadrants?

General Comments

The case primarily tests an understanding of microeconomic concepts. As such, it is a little bit more qualitative and less quantitative than the average case. However, it is entirely possible that you will see a case such as this one at some point during your interviews.

Solutions

The key insights on question #1 are that the client is the leader in a two-company oligopoly in North America, its biggest market. It is in a highly competitive situation in Europe, and an even more competitive position in Asia where it has two competitors that are only slightly smaller, and a third competitor with a decent market share as well.

For question #2, the prospect should ideally identify three major points:

- 1) given the economies of scale and distribution that are likely prevalent in this business, we expect them to use these advantages and the “experience curve” to increase their market share lead in North America;
- 2) conversely, we would expect them to lose market share in Asia and Europe during this time, for the same reasons; and
- 3) given the high growth rate in Asia relative to the other two continents, we would expect the Asian share of our client’s overall business mix to increase. (Note: The candidate can infer from the information presented that the market in Asia is growing, since our client’s market share in Asia is declining, but at the same time Asian sales are accounting for more and more of its total. This means either that the Asian market is growing or that our client’s sales are drastically declining. The former explanation seems to be the more logical of the two.)

If the candidate produces these insights, the chart should confirm their hypotheses. If not, it will be necessary to tease these insights from him or her, or just say why if (s)he is really stuck. As for question #2, price competition should be softer in the U.S. than in Asia due to our client’s

commanding market share and the fact that there are fewer competitors. For bonus points, the candidate could also mention that the U.S. market may be more fertile ground for price leadership and that it may be easier to track competitor moves.

Next question asks him or her to label the x-axis. The correct answer here is demand elasticity. That answer is revealed on next chart, which in turn asks the candidate to draw the most logical line on the graph, which is a downward-sloping straight line from the upper left-hand corner to the lower right-hand corner.

Finally, at last chart, the actual graph appears and is different than what we expected. The observation from the graph is that there is no apparent effect at all from demand elasticity on gross margins. This leads us to the conclusion that profits will increase if we change our pricing strategies in Quadrants II and IV. We should leave pricing alone in Quadrants I and III, since points in those areas are behaving in the way that we would expect them to. In Quadrant II, demand elasticity is high, yet we are still earning a high margin, indicating that there is room to cut prices here and still increase profits. In Quadrant IV, demand elasticity is low, yet margins are also low, meaning that we can raise prices to capture additional consumer surplus. These insights regarding elasticity and profit-improving price changes will occur to the candidate easily if (s)he invests some effort in understanding price elasticity of demand and its relationship to changes in revenues as price is reduced 1%. These are the main concluding insights of this case.

GOTONet Case

GOTONet currently is a leading ISP in the USA

- GOTONet, an ISP (Internet Service Provider) offering services in the United States, is thinking about entering the European market for ISPs. Thus far, they have successfully captured the dominant position and sustained profitability domestically while receiving revenues in two separate ways:
 - charging a subscription access fee; and,
 - receiving a percentage of all e-commerce transactions that their subscribers undertake.
- GOTONet has already performed some due diligence on the ISP market in Europe and has learned that the market is very fragmented and may be ripe for entry
- You are in a meeting with the CEO of GOTONet and have been asked to perform some quick “back of the envelope calculations” on what the potential profitability of expanding into Europe would be

Key question

Can GOTONet achieve profitability in Europe with its current pricing model?

GOTONet has already made some assumptions about the European Market

- GOTONet has done some research on the European market and has made the following assumptions about its proposed entry there:
 - GOTONet plans to capture a customer base of 10 million subscribers
 - GOTONet subscribers will pay €20 per month for access
 - The average GOTONet subscriber purchases €1,800 annually on the Internet
 - Of these purchases, GOTONet receives a 3% commission
 - - Fixed costs are €1 billion annually
 - - Variable costs are €110 per subscriber annually

The GOTONet CEO has some questions that she wants you to answer:

1. Please determine our annual net income (before taxes) in Europe, given the current revenue model and set of assumptions.

ANSWER: €_____

2. Given the above, what is our annual gross mark-up, in percentage?

ANSWER: ____%

There is now a new wrinkle in the GOTONet situation. GOTONet has now learned that recently a new entrant has captured a high degree of market share by offering consumers Internet access for only €10/month.

3. The CEO now wants to know: can we lower our monthly subscription fee in Europe to €10 and still make money?

YES NO

The GOTONet CEO now has some more questions that she wants you to answer:

4. Given an assumption of high demand elasticity, we cannot charge more than €10/month for access. How much would each subscriber have to buy on the Internet each year to keep profits the same?

ANSWER: €_____

5. How much would each subscriber have to buy on the Internet each year to enable us to break even?

ANSWER: €_____

6. Given that we cannot charge more than €10/month for access, or get each subscriber to buy significantly more products on the Internet each year, how many subscribers would we need to sign up in order to break even?

ANSWER: _____

Final 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'll lose money?
3. How would you sum up the situation, and what do you recommend?

General Comments

This case has a lot of number crunching!! As such, it is a little bit more quantitative and less qualitative than the average case. However, it is entirely possible that you will see a case such as this one at some point during your interviews. Also, it is not entirely quantitative, as there are some non-numerical insights that the candidate needs to come up with as well.

Solutions/How to Give the Case

Based on the background, the candidate should be able to come up with the key question. Thereafter, GOTONet's assumptions provide sufficient background for the calculations required in questions 1 through 5.

For question #1, annual subscription revenues are €2.4 billion (10 million subscribers x €20/month x 12 months/year). Annual commissions are €540 million (10 million subscribers x €1,800/year x 3%). Total annual revenues are therefore €2.4 billion + €540 million = €2.94 billion. Fixed costs are €1 billion. Variable costs are €1.1 billion (10 million subscribers x €110/month). Total annual costs are therefore €2.1 billion.

For question #2, annual percentage profit margin is therefore 40% (€840 million/€2.1 billion). Annual subscription revenues are now €1.2 billion (10 million subscribers x €10/month x 12 months/year). Annual commissions are still €540 million (10 million subscribers x €1,800/year x 3%). Total annual revenues are therefore €1.74 billion. Total costs remain €2.1 billion, so we'll lose €.36 billion by halving the subscription charges, making the answer to question #3 "no". At this point, the interviewer should pause and ask the interviewee what (s)he thinks is the likely elasticity of demand. The likely answer is that it is high, meaning that it will be difficult for us to win European subscribers with a €20/month offering.

For question #4, we want to keep our previous level of profits (€840 million) the same. Total annual costs remain at €2.1 billion, so revenues will have to be €2.94 billion. Annual subscription revenues are €1.2 billion (10 million subscribers x €10/month x 12 months/year). So, annual commissions will have to be €1.74 billion. There are 10 million subscribers, so we need to receive commissions of €174/year per subscriber. That means that they will have to buy €5,800/year in goods (€174/year divided by 3%). This is more than a threefold increase from the current projection of €1,800/year. Ask the candidate if (s)he thinks that this is realistic. The answer should be no.

For question #5, total annual costs remain at €2.1 billion, so revenues will have to be €2.1 billion also. Annual subscription revenues are €1.2 billion (10 million subscribers x €10/month x 12 months/year). So, annual commissions will have to be €900 million. There are 10 million subscribers, so we need to receive commissions of €90/year per subscriber. That means that they will have to buy €3,000/year in goods (€90/year divided by 3%). This is better, but still represents more than a 50% increase from the current projection of €1,800/year. Ask the candidate if (s)he thinks that this is realistic. The answer should be no again.

On next question, the trick is to understand that each incremental customer contributes to variable costs as well as to revenues. A new customer adds €120 (€10/month x 12 months/year) in annual subscription revenues and €54 in annual commissions (€1,800/year x 3%). This sums to €174/year in incremental revenue, compared with €110 in incremental cost, a total incremental profit of €64/year. These profits have to cover total annual fixed costs of €1 billion, so the break-even point is $\text{€1 billion} / \text{€64} = 15,625,000$ customers. Many candidates foul up this part by forgetting about the variable costs that are incurred when new customers join.

Finally, the case asks the candidate some open-ended question to challenge him or her qualitatively, now that the number-crunching is over. For question #1, our client could reduce the fixed costs of investment by outsourcing capacity, leasing networks, working in localized geographies only, etc. For questions #2, our client could continue with the investment even if it looks like it will lose money, perhaps as a foothold for expansion of Internet retailing. But that in turn raises questions or whether or not this will materialize, and whether or not the competition will eliminate the ability to charge commissions.

The third and final question asks the candidate about the key points of the case, which are:

1. We could theoretically make money in Europe by charging what we charge in North America (€20/month), but the competitive landscape and high demand elasticity mean that it will be difficult for us to win European subscribers with a €20/month offering.
2. There are various ways around this, the most promising of which is to drop price to €10/month and hope to convert over a higher number of customers than we had initially budgeted. But we need to do some market research to see if this is practical before we jump in to the market.
3. Other solutions, such as reducing fixed costs and/or using this project as a loss leader, should also be considered, and may be desirable, depending on the situation.

Maine Apples Case

Danut is a Korean conglomerate that has just made an acquisition in the United States

- Our client is a Korean conglomerate named Danut that has acquired a small Boston-based biotechnology firm
- The company that they have acquired has developed a chemical that helps control the ripening of produce. After limited 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 would like to know if they should attempt to commercialize this chemical

Key question

Is the market size large enough and the estimated profitability high enough for Danut to attempt to commercialize this chemical?

Danut is going to use the state of Maine as a “test market”

- Apples are grown throughout the United States. Our client, for the moment, is only concerned with the market in the state of Maine, which is the closest apple-growing state to the Boston headquarters of the company that it has acquired
- We know some facts about the Maine apple market:
 - \$30,000/acre is the average annual revenue for apple orchards
 - There are approximately 200 apple orchards in Maine
 - The average orchard has a 100 acres of land
 - The market is growing at approximately GDP
 - There is only one apple harvest per year (in the fall)
- So, we now need to know:
 - What is the total market size in the state of Maine?
 - Does this seem large enough to continue?

Pricing is easily the most important issue in this case. This is a value-based pricing problem:

- How much incremental profit does our product create for an apple orchard owner?; and,
- How much of that benefit can we capture?

Our client’s product provides three benefits to orchard owners, the first of which is earlier harvesting

- It costs money to maintain a growing field of apple trees. For example, the possibility of frost in Maine forces farmers to cover their trees, etc.
- Our client has given a sample of the product to a farmer with an average-size orchard:
 - This farmer spends \$1,500/night to maintain an active crop of apple trees
 - He was able to harvest his crop 10 days earlier by using the product

What is the estimated savings to the farmer per acre per year?

\$ ____/acre/year

Our client’s product provides three benefits to orchard owners, the second of which is better consistency

- Orchards split their harvest between the whole-apple market and the juice market
 - On average, 25% of the total revenue comes from whole apples
 - The other 75% of the total revenue comes from apple juice
- For the whole-apple market, the farmers must sort through the harvested apples and separate out any apples that are not red and ripe
- Our client's product improves the consistency of red apples and improves this yield by an estimated 10%.

What is the estimated incremental revenue to the farmer per acre per year?

\$ ____/acre/year

Our client's product provides three benefits to orchard owners, the third of which is increased sweetness

- For apples dedicated to the juice market, this product improves the overall sweetness of apples
 - Thus, it takes fewer apples to make apple juice
 - Said another way, the same number of apples will make more juice
- It is estimated that the sweetness factor improves juice yield by 5%.

What is the estimated incremental revenue to the farmer per acre per year?

\$ ____/acre/year

Our pricing will depend on the total benefit delivered and on an assumption about how much of that benefit we can capture.

What is the estimated incremental profit to the farmer per acre per year?

\$ ____/acre/year

How much of that benefit can we capture in our pricing?

\$ ____/acre/year

To project profitability, we also need to calculate what our costs will be

- It is estimated that the product will cost \$100,000/ hectoliter to produce
 - This is a fully-loaded cost, including labor, raw materials, transportation, warehousing, sales and marketing, delivery, etc.
- Tests indicate that 1 hectoliter of the product can support 200 acres of apple crop.

So, in conclusion:

- Will we make a profit?
- If so, what will our gross margin be?
- If not, what is our negative margin?

There are other potential issues to explore as well:

- Differentiation: What is our positioning? Is it unique? Is it defensible?
- Environmental Issues: Is there any risk of a 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: Do we already have a patent on this product? If yes, when does it expire? If no, is it possible to get a patent? If not, can we at least patent the manufacturing process?
- Representativeness of Maine as a test market: What is the sensitivity of the key assumptions? Does it cost less to cover apples in Michigan or Wisconsin?
- Strategic Fit: Is this opportunity too small relative to the size of the client?

General Comments

This case also has a lot of number crunching!! As such, it is a little bit more quantitative and less qualitative than the average case. However, like the GOTONet case, it is entirely possible that you will see a case such as this one at some point during your interviews. Also, it is not entirely quantitative, as there are some non-numerical insights that the candidate needs to come up with as well.

Solutions

Based on the background, the candidate should be able to come up with the key question. Ideally, the candidate should come up with both facets of the question:

- the minimum necessary size of the market, and
- the need for profitability.

Thereafter, enough information is provided to enable the candidate to answer the two questions about size of the market in Maine. The answer to question #1 is $\$30,000/\text{acre} \times 200 \text{ orchards} \times 100 \text{ acres/orchard} = \600 million . The answer to question #2 is yes – that is indeed large enough to continue.

The interviewer should then ask how the candidate should go about solving the problem. The best answer is to focus on pricing, and the prospect will be doing well to identify the two questions about value of the benefit. If (s)he is having trouble getting to those questions, ask him or her about the components of profitability. (The answers are revenues and costs.) Among those, which should be harder to estimate? Since the client should have a decent idea of how much this stuff costs to produce, the answer is revenues. Then, within revenues, there are pricing and volume components. Since we now know the market size, we can at least estimate volume, leaving pricing as the unsolved question.

Pricing will be a function of how much money we make for the client, and how much of that we can capture. The case breaks out this question into three separate calculations. The interviewee should be given one piece of information at a time, asked to calculate incremental profits on a per-acre, per-year basis, and then to write the answer in the blank space at the bottom of the slide. The answers are as follows:

- $\$1,500/\text{day} \times 10 \text{ days} / 100 \text{ acres} = \$150/\text{acre}/\text{year}$
- $\$30,000/\text{acre} \times 25\% \times 10\% = \$750/\text{acre}/\text{year}$
- $\$30,000/\text{acre} \times 75\% \times 5\% = \$1,125/\text{acre}/\text{year}$

Then, the candidate should sum these numbers to a total benefit of $\$2,025/\text{acre}/\text{year}$. The next question is more subjective. Ask the candidate what a reasonable percentage would be. This is a perennial question for many products. Working in our client's favor is the monopoly nature of the product, but working against it is the newness and resulting lack of social proof. The best

answers will be between 25% and 50%. Anyone who thinks that the client can capture all 100% of the orchard owner's profit is smoking crack. After the interviewee gives you his or her percentage, say that we will use \$1,000/acre/year as our pricing for the sake of simplicity (this is just under 50%). Using that pricing, and the operations & cost information given next, the candidate then calculates that our costs are \$500/acre/year ($\$100,000 / 200$). That gives us a gross margin of $\$1,000/\text{acre}/\text{year} - \$500/\text{acre}/\text{year} = \$500/\text{acre}/\text{year}$, or 50%. This is high, and indicates that our client should proceed ahead with commercialization. Finally, ask the interviewee what other, non-financial factors should be considered. (S)he should be able to come up with at least some of the issues noted above.

In conclusion, this case tests a candidate's ability to do a lot of number crunching and come up with the right answers. It is best to do all calculations in terms of per acre per year, but the candidate should figure that out on his or her own. If (s)he calculates the numbers in a different way, (s)he can then normalize the units when it comes time to add. The key qualitative insights relate to the nature of value-based pricing: the need to quantify how much money our client's product will make for its clients, and a realistic estimate of how much of that money our client can capture. Finally, common sense and a basic familiarity with new product introduction should guide the successful candidate to some or all of the qualitative issues on the last slide.

Orrington Office Supplies Case

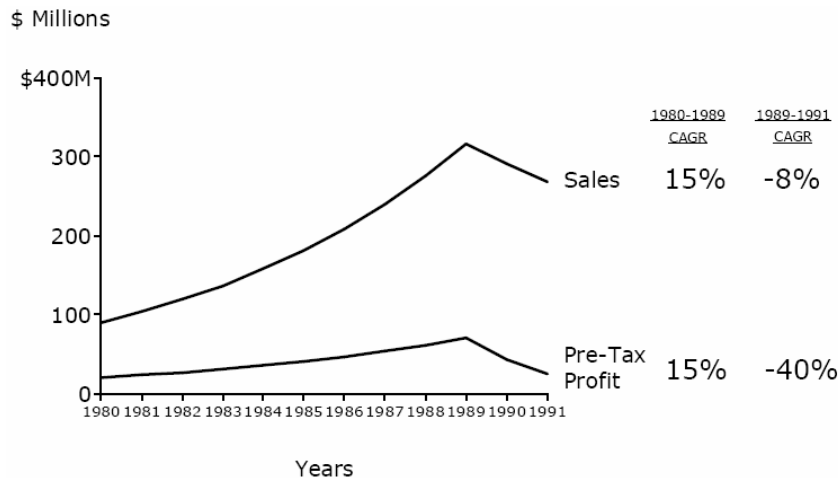
Our client, Orrington Office Supplies, is a leading manufacturer of office products in 1992

- Orrington Office Supplies (OOS) is one of the largest diversified manufacturers of office products, with sales of ~\$275 million in 1991
 - Strong brands
 - Significant advertising and marketing expense to support these brands
 - Historical growth generated by product line extensions and four key acquisitions
- OOS is organized into 5 autonomous operating divisions, but with shared manufacturing and marketing functions
 - Shared costs (45% of total) are allocated to products on a % of sales method
 - Current manufacturing capacity utilization is ~50%

Orrington Office Supplies is a potential acquisition target

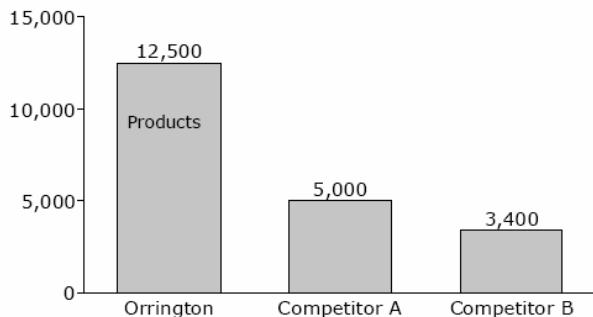
- OOS is a publicly-traded company on the NASDAQ
- The company’s current P/E ratio is 8
- It has little long-term debt
- Some industry analysts are predicting that OOS will become an acquisition target in the near future, given a strong balance sheet but weakening earnings

OOS experienced consistent revenue and profit growth during the 1980s



OOS offers a broader product line than its competitors

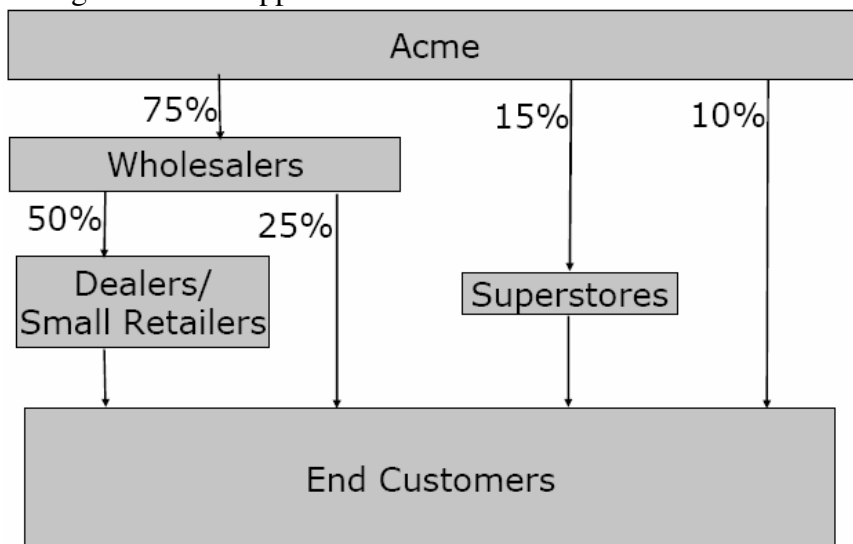
Number of Different Products (SKUs) Manufactured



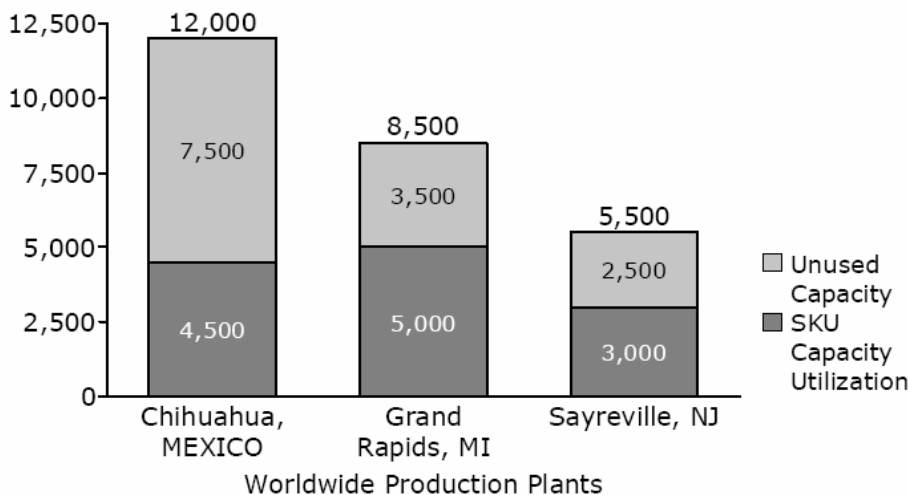
There are some general market trends that affect the client in this case

- The U.S. office supplies market grew at a 5% CAGR during the 1980s
 - In 1990 and 1991, however, the market declined at 5% per year
- The superstore channel is becoming increasingly critical
 - Superstores have gained 10 share points in the past two years
 - Superstores typically offer products at a 30% discount to small retailers/dealers
- Superstores are aggressively substituting private label products for traditional brand names
 - For example, Staples Inc. is currently negotiating with private-label stapler manufacturers in China
 - Acme's most profitable product is a high-end branded stapler
 - Staples, Inc. is now Acme's largest single customer

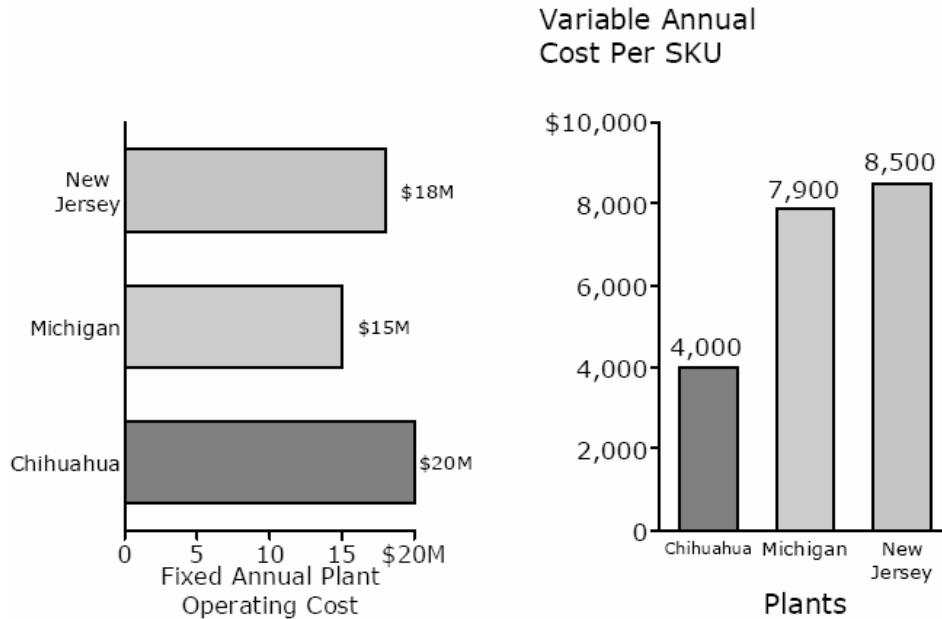
Orrington Office Supplies has several simultaneous distribution channels



Orrington Office Supplies operates three production plants, all in North America
 # of SKUs That Can Be Produced



Each of the company's plants face a different fixed and variable cost structure



One potential solution is to discontinue 500 SKUs and to combine all production in Chihuahua

- How would this change revenues, which are currently \$275 million per year?
- How would this change production costs? What are they now?
- How would this change pre-tax profits, which are currently \$25 million per year?

There are other potential issues to explore as well

- 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 to address this.
- 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".

General Comments

This case combines public math with the need to come up with some key qualitative insights. More information than usual is presented up front, leaving the candidate to create the structure and decide which the most important issues to pursue are. The candidate also will need to ask for the information that they need, and interpret it once they have it. And the calculations toward the end of the case will definitely provide a public math workout!

Solutions

The interviewer needs to give the interviewee the background before asking him or her how to structure the analysis. Hopefully the candidate will realize that a recent profitability decline is the most urgent and important issue and ask for some revenue and/or profitability trends. At that

point, the interviewer can show revenues & profit chart. Ideally, the candidate should not only be able to interpret the data on this slide, but also to come up with two insights about this slide:

- the fact that profits have been declining more steeply than sales reflects the fixed-cost nature of this business, and
- 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.

Next 2 charts and trends information can then be given. The interviewer should then ask what should be done about the situation. While the channel migration to superstores is interesting, it and other macroeconomic trends are beyond the scope of the client to control. That piece of analysis, coupled with the fact that our client's manufacturing capacity utilization is only 50%, should point the candidate in the direction of plant consolidation. The interviewer can provide hints if necessary, but should not give SKU chart for the three plants until the candidate has been able to produce this insight.

The chart reveals that only the Chihuahua plant is close to having the capacity to produce the required number of different stock-keeping units (SKUs). Either OOS can close that plant and move all production to the U.S. or it can close the two U.S. plants, discontinue 500 SKUs, and consolidate all production in Chihuahua. Insightful candidates will ask to see fixed and variable cost data from the different plants; the interviewer will then produce the cost-structure chart. The interviewee should realize without doing too many calculations that the latter option (consolidating in Chihuahua) is preferable. To reality-test this hypothesis, ask the candidate to make all of the relevant calculations, which are:

- Revenues: Each SKU earns annual revenues of \$22,000 (\$275 million divided by 12,500 SKUs). Therefore, eliminating 500 SKUs will shave \$11 million, or 4%, off of annual revenues.
- Costs: Each plant currently has the following annual costs, totaling to \$136 million:
Chihuahua: $\$20,000,000 + (\$4,000 * 4,500 \text{ SKUs}) = \$20\text{M} + \$18\text{M} = \38 million
Michigan: $\$15,000,000 + (\$7,900 * 5,000 \text{ SKUs}) = \$15\text{M} + \$39.5\text{M} = \54.5 M
New Jersey: $\$18,000,000 + (\$8,500 * 3,000 \text{ SKUs}) = \$18\text{M} + \$25.5\text{M} = \43.5 M
 - Consolidating production to Chihuahua will reduce annual costs by 50% to:
Chihuahua: $\$20,000,000 + (\$4,000 * 12,000 \text{ SKUs}) = \$20\text{M} + \$48\text{M} = \68 M

Profits: We have reduced costs by \$68 million and lowered revenues by \$11 million. This will increase profits by \$57 million, to \$82 million, which more than triples them. This discussion may take up to 10 minutes, which is OK, because many of the earlier issues take much less time than average. Finally, common sense and a basic familiarity with manufacturing operations should guide the successful candidate to some or all of the qualitative issues on the last slide.

Syzygy Supercomputers Case

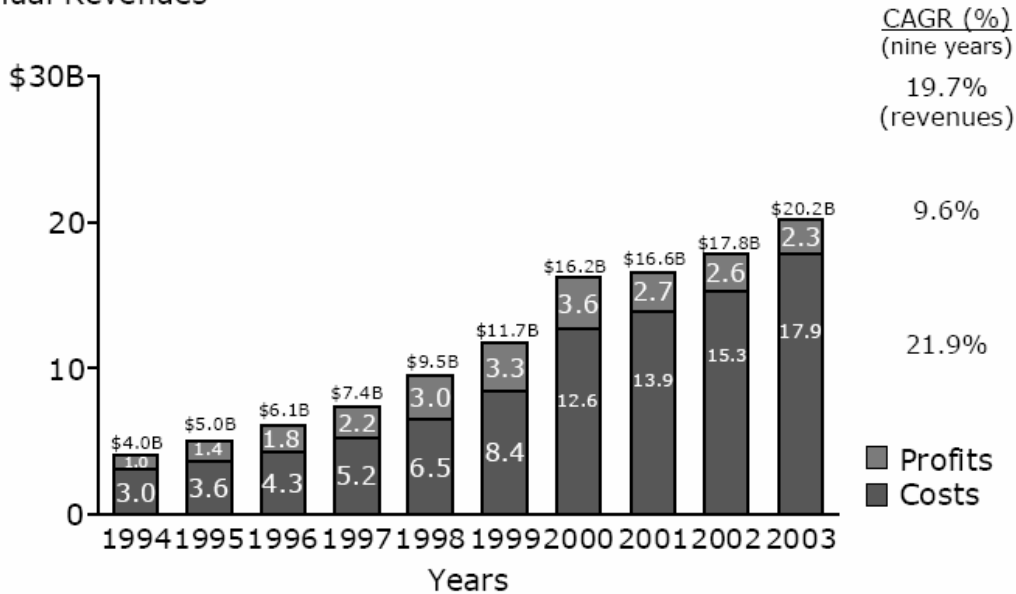
Situation: Syzygy Supercomputers is a large international fully integrated computers and communications company with annual revenues of approximately \$20 billion U.S.

Complication: Syzygy’s profits have been declining steadily over the past several years

Action: Your consulting firm has been hired to evaluate the cause of the problem and to recommend solutions

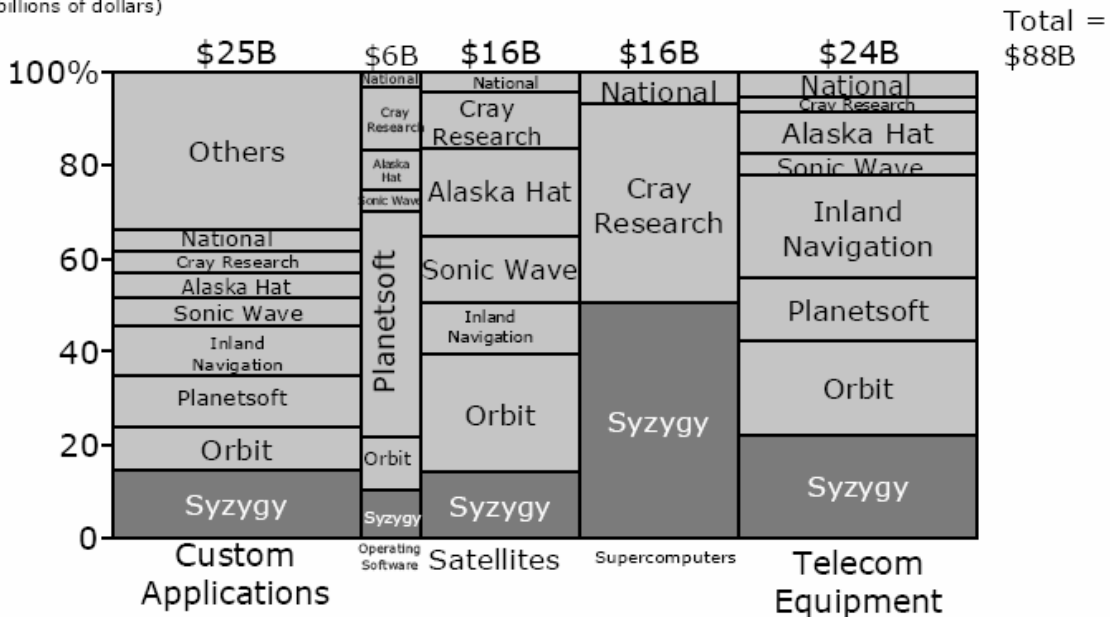
Syzygy’s historical costs, revenues, and profits are:

Annual Revenues

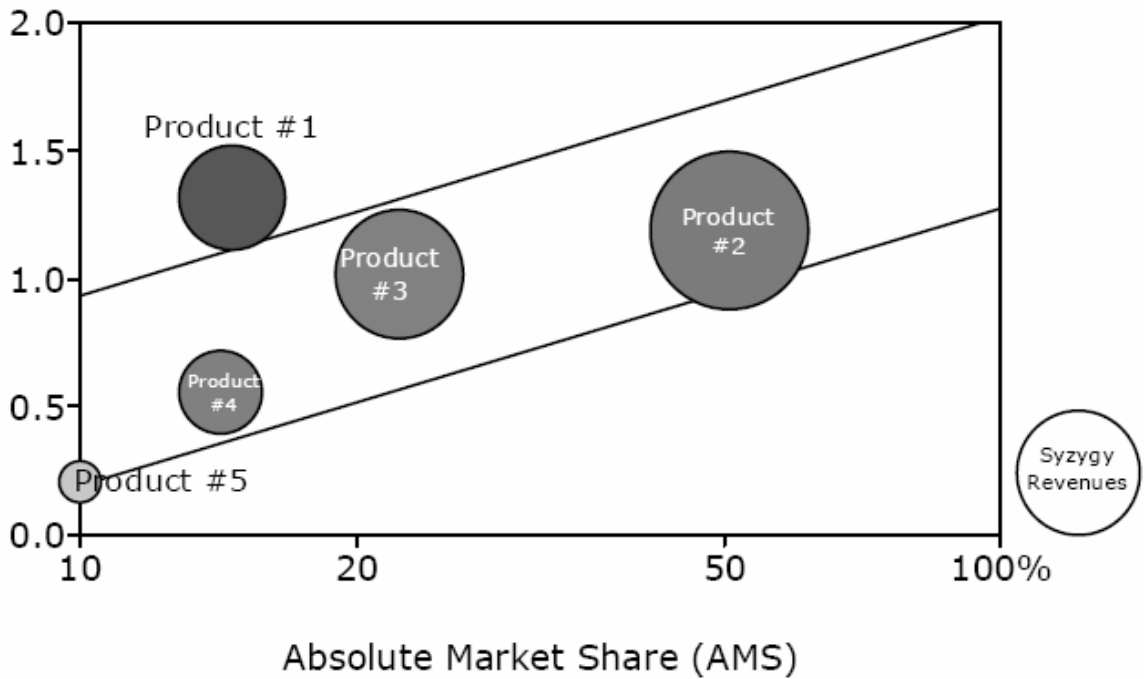


Worldwide telecommunications computing market (today):

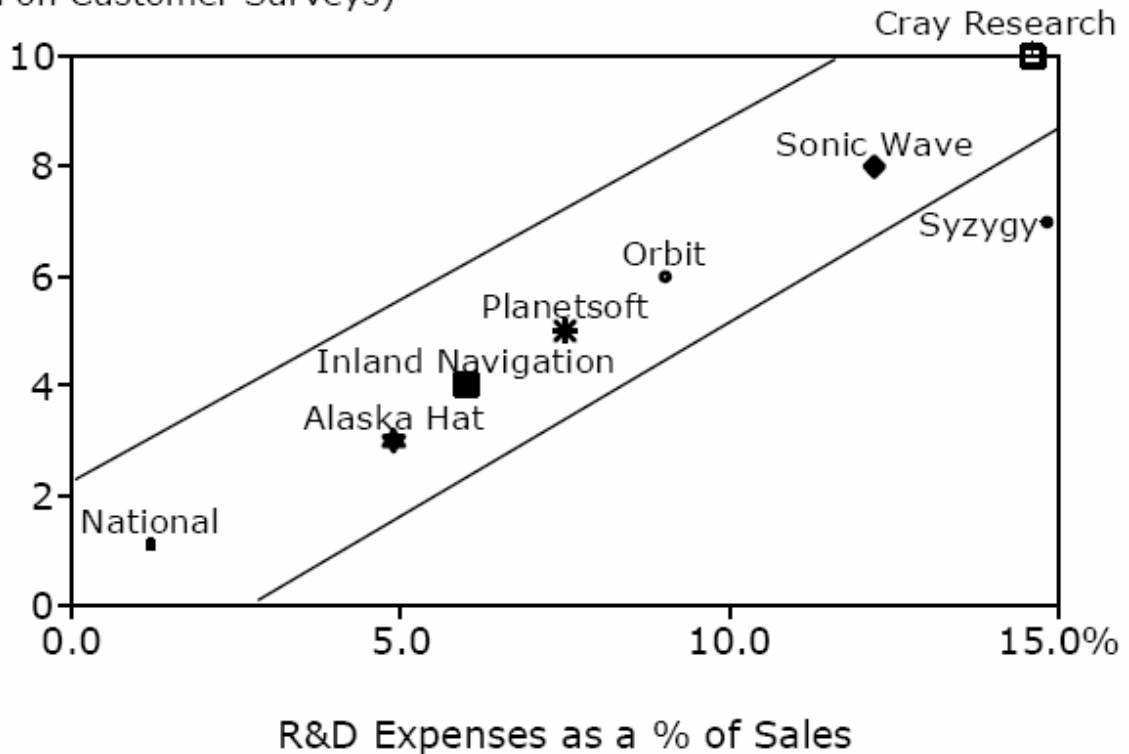
Annual Worldwide Market
(in billions of dollars)



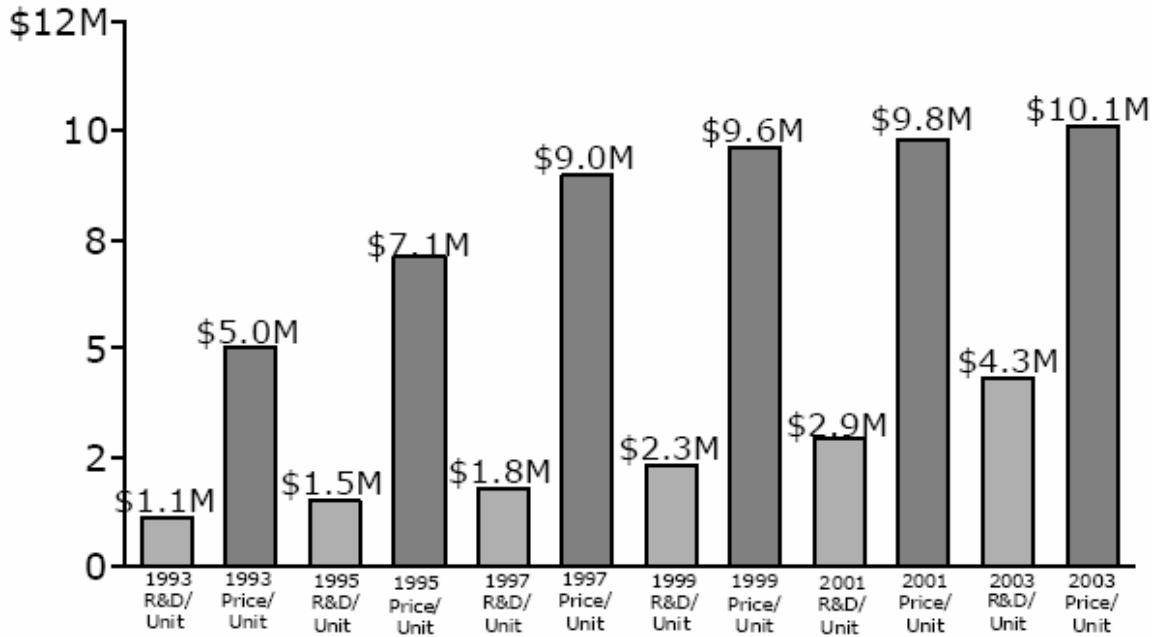
This graph plots Syzygy's absolute market share (AMS) vs. its relative market share (RMS)
Relative Market Share (RMS)



This chart compares companies' R&D with their degree of technical leadership
Technical Leadership
 (Based on Customer Surveys)



Syzygy's R&D expenses for supercomputers and their selling prices are shown over time
\$ millions



General Comments

This is a challenging case that tests several relevant concepts, and is heavy on chart interpretation. The candidate will need to use logical, inductive reasoning to discover and highlight the relevant ideas and insights.

Solutions

First, give the relevant background information. Based on that, the candidate should identify this as a profitability problem, and ask to see historical revenue and cost information. Wanting to see this information over time, rather than just for the most recent fiscal year, is important, indicating the candidate's understanding of the need to see trends rather than just a snapshot at this moment in time. The first chart provides this profitability information. The correct interpretation is that both costs and revenues have risen over time, but that profits peaked in 2000 and have fallen ever since.

Charts 2 and 3 should be given in tandem. Chart 2 uses the famed "marimekko" format. Candidates should take some time to familiarize themselves with this chart. Bain loves these charts. Marakon uses a similar data format in some of its studies. The interviewer should then present chart 3 and ask the candidate which product on the chart is which. This will require the candidate to identify the meaning of the two axes and the bubble size. The x axis is absolute market share (AMS), which is Syzygy's revenues divided by the total revenues in the category. AMS is best estimated by the height of Syzygy's rectangle in each of the five product areas. The y axis represents relative market share (RMS), which is calculated as Syzygy's market share divided by the market share of the next closest competitor, if Syzygy is the market leader in that category, in which case the RMS number will be greater than one. If Syzygy is not the market leader, then the calculation is Syzygy's market share divided by the market share of the leader, in which case the RMS number will be less than one. Estimating RMS from the information on

chart 2 is best done by looking at the ratio of the height of Syzygy's rectangle in each of the five product areas to the height of competitors' rectangles in each of those areas. Finally, the diameter of the bubbles is driven by Syzygy's total revenues in that category, estimated from the marimekko chart by the height of Syzygy's rectangle (its market share) multiplied by the width of the rectangle (the size of the market). Correctly interpreting these two charts will lead the candidate to correctly identify the products:

- Product #1 is custom applications;
- Product #2 is supercomputers;
- Product #3 is telecommunications equipment;
- Product #4 is satellites; and,
- Product #5 is operating software.

So, now – how do you interpret the graphs and what to do about them? Looking at chart 3, the bubble in the upper-left hand corner of an AMS vs. RMS slide (product #1, in this case) indicates a position as the market leader in a very fragmented industry. The obvious question, then, is what if any advantages accrue to such a leader. In this case, it is probably true that there are little if any economies of scale in custom applications, so increasing either AMS or RMS seems unlikely to lead to a competitive advantage. By contrast, the bubbles to the right hand side of a chart like this (product #2, in this case) indicate a duopoly market in which the client company is in either first place or a close second. Finally, the bubble in the lower left-hand corner of such a chart (product #5, in this case) indicates a weak position and begs the question – are there economies of scale, network effects, and/or an experience curve at work here? Since this product is operating software, the answer is probably going to be “yes” in all three cases. The likely conclusion is that Syzygy's already small market share in operating software will continue to erode. Translation: Syzygy should probably exit this business.

Charts 4 and 5 conclude the case by looking at Syzygy's research and development (R&D) spending. The key insight in chart 4 is that Syzygy is the only major competitor in this industry whose R&D spending is below the “normative band” (the band indicated by the area in between the two parallel lines). 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 than Cray Research, enjoys less of a perception of technical leadership from its customers, and is also dominated by Sonic Wave, which has a position to the north and west of Syzygy as well.

Chart 5 builds on this point by examining Syzygy's R&D expenses as compared to its product prices over time. Although R&D as a % of the product price is clearly increasing over time, the key insight here is the absolute expenses, not the % taken up by expenses. Spending \$4 million/unit on R&D for features that will allow a company to charge \$6 million/unit more for its product is a good strategic move, even if it raises the overall % of a product's sale price that is spent on R&D. However, Syzygy is spending more money on features than the customer's corresponding “willingness to pay” – for instance, from 2001 to 2003, Syzygy's R&D spending per unit increased by \$1.4 million, but the corresponding price increase was only \$300,000/unit. Likely translation – Syzygy is spending money to develop features that consumers are not willing to pay for. That's a bad business practice.

In conclusion, this is a complex case with multiple possible interpretations. In light of the information presented, the candidate should be able to produce the most important insight, which is that Syzygy should either

- cut R&D to eliminate spending on unnecessary customer features, or
- 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.

Syzygy's position as the overall market leader would argue for Option B, but either option could be argued for successfully. A second-order insight from the case is that Syzygy should exit the operating software business, since economies of scale, network economics, and the experience curve are all working against it. By the same token, it should increase its focus in some of the categories where it is the market leader, to get some or all of those economies to work for it and against its competition.

Winter Olympics Bidding Case

Our client is a major U.S. television network

- We have been retained by a television network that is trying to decide how much to bid for the rights to broadcast the 2010 Winter Olympic Games in British Columbia, Canada
- The Winter Olympics lasts for 16 days
 - The first day, a Friday, is taken up with the Opening Ceremonies (3 hours of broadcasting) from 8-11 PM
 - The games themselves are held during the next fourteen days (10 hours of broadcasting per day)
 - Our client will broadcast Olympics weekday coverage from 9 a.m. to noon, 2-5 p.m., and 7-11 p.m.
 - Our client will broadcast Olympics weekend coverage from 11 AM to 9 PM
 - The final day, a Saturday, is taken up with the Closing Ceremonies (3 hours of broadcasting) from 8-11 PM

Revenue for this project is entirely based on advertising

- Our client is a broadcast television network that receives no subscription revenue
- It will, however, be able to keep 100% of its advertising revenue, without sharing any with its affiliates
- Advertising rates are estimated to be \$400,000 per 30-second ad for prime-time programming and \$200,000 per 30-second ad for non-prime-time programming
 - “Slot” = 30 seconds of advertising time
 - Prime Time = M-F from 7 PM – 11 PM; Sat-Sun all day
 - Non Prime Time = M-F all other times
- Market research has shown that consumers / watchers can take no more than 10 minutes of advertising time per hour of television; they will stop watching if there is more advertising than that

There are other potential issues to explore as well

- Tangible Costs: These are estimated to total \$428,000,000
- Opportunity Cost: How profitable would the other programming that would be airing on our network be?
- Time Value of Money: We can assume a six-year lag time between payments of our rights fees in early 2004 and the receipt of revenues in early 2010.

Finally, there are also some intangible factors

- This might give us access to viewers that we would otherwise not have
- There is prestige associated with this event
- We can use some of the air time to promote our other programming

General Comments

This case combines public math with the need to come up with some key qualitative insights. This is a high-level case that is more likely to be given by a partner in a second-round case interview than by a manager or consultant in a first-round case interview. But, regardless of the

setting, the successful candidate needs both to nail the math and also to come up with the important questions to ask to value the project. This is not a slide-heavy case, but the prospect really needs to identify the relevant issues to do well here.

Solutions

Background information should be presented to the candidate at the beginning of the case. From there, (s)he should identify this as a valuation problem, and ask about potential revenues. At this point, revenue details can be shown. From there, the candidate should be asked to calculate the total revenue for this project, which are \$928 million. The revenue math calculations are as follows:

Prime Time Revenues:

Weekday (M-F): $10 \text{ weekdays} \times 4 \text{ hrs/weekday} \times 10 \text{ min/hr} \times 2 \text{ slots/min} \times \$400,000/\text{slot}$
= \$320 Million

Weekend (Sat-Sun): $4 \text{ weekend days} \times 10 \text{ hrs/weekend day} \times 10 \text{ min/hr} \times 2 \text{ slots/min} \times \$400,000/\text{slot}$ = \$320 Million

Opening Ceremony: $3 \text{ hrs} \times 10 \text{ min/hr} \times 2 \text{ slots/min} \times \$400,000/\text{slot}$ = \$24 Million

Closing Ceremony: $3 \text{ hrs} \times 10 \text{ min/hr} \times 2 \text{ slots/min} \times \$400,000/\text{slot}$ = \$24 Million

Non-Prime Time Revenues:

Weekday (M-F): $10 \text{ weekdays} \times 6 \text{ hrs/weekday} \times 10 \text{ min/hr} \times 2 \text{ slots/min} \times \$200,000/\text{slot}$
= \$240 million

Total Revenue = \$320M + \$320M + \$24M + \$24M + \$240M = \$928 million

It may take the candidate up to 3-5 minutes to do these calculations. A good candidate will work slowly and steadily rather than rushing and risking a mistake. And, as with many public math problems, the candidate should set the problem up correctly which is as important as, if not more important than, doing the calculations correctly.

After the candidate does the math, the interviewer should ask about how to value the project. The next element that needs to be calculated is cost. Successful prospects will identify that there are three main areas of cost before told: actual production costs, opportunity costs, and the time value of money. Candidates should ask the interviewer to provide data on each of the three cost categories. That data can then be given. If the candidate asks, which (s)he should, the interviewer can also say that the opportunity cost is \$1 million/hour of displaced programming and that the weighted average cost of capital (WACC) for this project is 12%/year.

In calculating the time value of money, the candidate will be helped by knowing the “rule of 72,” which says that the number of years that it takes money to double is equal to 72 divided by the rate of return. In other words, money invested at a 9% annual rate will double in 8 years, money invested at a 12% annual rate will double in 6 years, etc. Since there is a six-year lag between expenses (buying the rights in early 2004) and revenues (getting money in early 2010), and since the cost of capital is 12%, it therefore follows that all 2010 cash flows can be halved to find their 2004 equivalents.

So, the relevant profitability analysis is:

Revenues	+ \$928,000,000 in 2010
Actual Costs	- \$428,000,000 in 2010
Opportunity Costs	- \$146,000,000 in 2010

	= \$346,000,000 in 2010 divided by 2
	= \$177,000,000 in 2004

The interviewer should then ask the candidate about any intangible issues that would affect the bid. Hopefully (s)he can come up with some or all of the three insights noted above. The interviewer should NOT give the insights to the candidate – the candidate needs to come up with this information on his or her own. The interviewer can provide hints if necessary. While there is no “correct” answer for this case, the \$177 million net present value (NPV) of this project, coupled with the intangible benefits, would argue for a bid in the \$200 million range. Any candidate who comes up with a number that is not in that ballpark will have to provide an in-depth justification as to why that is right.

Rotisserie Ranch

This case is going to take a slightly different path from some of the others that you've probably practiced. We're going to work through a business issue together – I'm going to ask you questions to guide you in your analysis, and I'm going to look to you to come to a conclusion on how to solve our client's problem. If you're ready, I'm going to read you a short description of the situation and then begin asking you questions. Ready?

Our client is Rotisserie Ranch, a poultry farming collaborative 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 retail stores. Rotisserie Ranch is the market leader in rotisserie-ready chicken production. It grows its chickens to a specific size, weight, fat content and muscle tone so that they will remain juicy on the spit (or under the heat lamp) while waiting to be taken home by a customer. It has developed a differentiated process for sterile packaging the chickens (after they have been plucked), so that they will remain fresh for an extended period of time under refrigeration, rather than freezing. This is a benefit to grocers, because predicting demand for cooked chickens is hard, and if the meat department staff has under-provisioned, a Rotisserie Ranch chicken can go from refrigerator to roaster faster directly, bypassing the costly delay of thawing a frozen bird.

Market research has revealed to Rotisserie Ranch that more and more consumers have begun buying flavored rotisserie chickens recently. Rotisserie chicken flavoring started when some grocers began drenching chickens in barbecue sauce prior to roasting, but has branched out into other flavors like lemon herb, tandoori and teriyaki. Rotisserie Ranch is thinking of pre-spicing some of its chickens for grocers. It has engaged us to determine whether or not this is a good idea.

Question #1

How would you go about analyzing this issue?

The candidate should now lay out a clear structure for analyzing the case. This structure should include a proposal to analyze:

- Revenue and Cost implications of new venture
 - How this will affect existing sales (expand the market?)
 - How this will affect cost structure (increased raw materials & labor? Same distribution channel?)
- Value to customers (grocery chains)
- Competition
 - What competitors exist?
 - Do they have similar offerings?
 - How they might respond?

Question #2

Your team begins analyzing this issue by interviewing grocery retailers. Do you think that grocery retailers would be interested in pre-seasoned chickens from Rotisserie Ranch?

It is more important that the candidate's answer this question be well thought-through than a specific "yes or no" answer per se. The response should be grounded in solid business thinking, and not on personal experience or gut instinct.

A "yes" response would include justifications like the following:

- Pre-seasoned chickens would cut the grocer's labor costs (meat department workers don't need to spend time seasoning the chickens). There will be significant economies of scale in seasoning centralization;
- Quality of seasoning on pre-seasoned chickens will be more consistent (it will be done centrally and optimized by Rotisserie Ranch, rather than by a multitude of meat department workers in hundreds of stores); or,
- Rotisserie Ranch, being a chicken specialist, will be able to expend more resources to research the ideal seasoning blends – making its seasoned chickens more appealing than a grocer's homemade seasoned chickens.

A "no" response would include justifications like the following:

- Grocery chains differentiate from one another based on value-added departments, like meat. If Rotisserie Ranch offers chickens with the same seasoning blend to competing chains, it will eliminate one point of competitive distinctiveness;
- The meat departments of specific grocery stores are likely to be better attuned to local consumer tastes than a centralized seasoner like Rotisserie Ranch;
- Adding different flavors of chicken will increase the total volume of chickens that a grocer needs to keep in stock at any one time. Delaying "specialization" allows the grocer to tailor flavoring based on specific customer demand.

Question #3

It turns out that the grocers are very interested in Rotisserie Ranch's proposal. Superstore grocers, in particular, are interested in increasing variety while cutting staff labor. Your team uncovers that many grocers have found seasoned chicken sales to be very inconsistent across their retail network. They attribute this to low seasoning skills by their meat department workers. In the course of your interviews, they reveal to you that they will be happy to switch to Rotisserie Ranch's pre-seasoned chickens, but first they want to be sure that the Rotisserie Ranch chickens will sell well. How would you test this?

The correct answer is to run a test market. 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; and,
- The pilot needs to have some control or comparison group

Question #4

Good. We ran a test market on Rotisserie Ranch's barbecue chicken at two price points: \$3 and \$5. We found that, on average, a large grocery store will sell 1,000 chickens a week at the \$3 price point and 300 barbecue chickens a week at the \$5 price point. How would you use this information to help sell Rotisserie Ranch's barbecue chicken to a grocery chain?

The candidate should now ask how much an average grocery store sells of its own barbecue chicken a week.

If the candidate asks this immediately say: “Good question” ...and proceed to (A)

The interview cannot really continue until the candidate recognizes that he or she is missing this piece of information. If the candidate misses this, give him or her some time to get it, then ask: “What other information would be valuable to know before making your pitch”. If they get it, proceed to(A). If they don’t get it say: “OK, one thing that was helpful to us was that.”

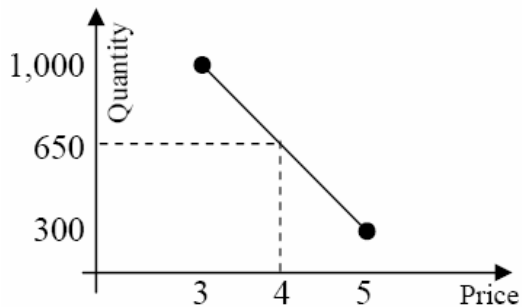
(A): A large grocery store generally grosses \$2,000 a week on barbecue chickens, and sells 500 of them.

Given this information, can you calculate whether the Rotisserie Ranch chickens are likely to sell better than the grocery store-prepared chickens?

The candidate should be able to quickly back out that the average price point of grocery store chickens is \$4 (\$2,000 divided by 500 chickens).

The candidate should assume that the demand function for Rotisserie Ranch chickens is linear. If this is the case, a \$4 price for a Rotisserie Ranch Chicken should result in sales of 650 chickens (the average of 1,000 chickens at the \$3 price point and 300 chickens at the \$5 price point). If the grocery chain can sell more pre-seasoned chickens at the same price, it will be interested in carrying the new Rotisserie Ranch product line.

Chicken Price Quantity Sold
\$3.00 1,000
\$5.00 300
 $(\$3.00 + \$5.00) / 2 = \$4.00$ $(1,000 + 300) / 2 = 650$



If the candidate correctly calculates 650 chickens, at a \$4.00 price, then say: Good. So, what would be the incremental revenues that a grocery store would make each week by selling Rotisserie Ranch chickens, rather than their own, assuming a \$4.00 price?

Chicken Price Expected Quantity Sold Revenues
Rotisserie Ranch: \$4.00 x 650 = \$2,600
Meat Department: \$4.00 x 500 = \$2,000
Incremental Revenues = \$600

Question #5

Frank Fieldsmith, Rotisserie Ranch's VP of Marketing, is excited about the prospect of selling pre-seasoned chickens. He thinks that this presents a branding opportunity for Rotisserie Ranch with consumers. Would you advise Rotisserie Ranch to start a direct-to consumer (DTC) campaign with its pre-seasoned chickens? Why or why not?

Yes, Rotisserie Ranch should start a DTC campaign on its chickens. This will give it:

- Better defense against "me too" competitors
- More power in negotiations with retailers over price and placement
- Increased ability to get distribution into retail chains that currently don't carry its product line
- The ability to do more effective consumer research about their opinions of its chicken
- The potential to expand the category, drawing consumer attention to the benefits of pre-seasoned rotisserie chickens
- etcetera

A "no" answer is also acceptable, but only if very well justified.

In either case, the candidate should provide a clear structure to how he or she answers this question. Similar to the outset of the case, the best candidates will define a methodology for assessing this question. Allow the candidate to explore each of the avenues that (s)he defines by explaining the circumstances under which branding would or would not be a good idea. Once the candidate begins to coalesce on an opinion, you can move on.

Question #6

Suddenly, your manager bursts into the team room. "The chairman or Rotisserie Ranch's board just called," she says. "He's skeptical about whether he should agree to continue funding this pre-seasoning research," she adds. How would you respond to the chairman? Should Rotisserie Ranch continue to pursue this pre-seasoned chicken venture?

This is the classic "elevator pitch" moment. The candidate should provide a clear recommendation to the chairman. This recommendation should not recapitulate the analysis performed, but should draw upon that analysis to provide a succinct opinion.

In sum, this case requires some clear-headed intuition and logic around the process of new product introduction. Applying a structure that is rigorous but not completely rigid is the key to solving this case.

Tarrant Fixtures

Your client, Tarrant Fixtures, is a low-intensity manufacturing company that produces display fixtures for retail clients. It has been determined that the company's financial performance has deteriorated in each of the last three years. Management is specifically concerned with the company's falling Return on Investment ("ROI"). You have been asked to diagnose the root cause(s) of this problem and recommend one or more solutions to put the company back on track.

Information to be Given by Interviewer (as the candidate asks for it)

- The company has two types of products, each of which account for approximately 50% of revenues:
 - "custom displays" (which are customized in design and manufacturing)
 - "standard displays" (which are manufactured according to standard blueprints)
- During the last three years:
 - Total Revenues have grown by 25% [\$100M to \$125M];
 - Costs of production (materials, labor, SG&A, etc.) have remained stable as a percentage of revenue [80%];
 - The company has made no new investments in property, plant, and equipment (PP&E);
- Standardized product information:
 - Total number of "standardized" products has increased from 5 to 12;
 - 5 standardized products account for 80 percent of sales in standardized products;
- Inventory levels have increased by 300% during last three years (primarily in finished goods), from \$25 million to \$75 million;
- Built-to-stock from sales forecast; and,
- Total Capital Employed today-3yrs = \$80M; Total Capital Employed today = \$130M

Solution

The critical insight of this case involves the division of ROI into its component pieces - profits and "investment." This case can be quite challenging to the interviewee who focuses solely on the company's recent profits, which have grown substantially over the relevant time frame. A good first step to "cracking" this case is to establish the parameters of the analysis using the ROI metric given.

$$\text{ROI} = \frac{\text{Return}}{\text{Investment}} = \frac{\text{Profits}}{\text{Capital Employed}} = \frac{f(\text{price, quantify, fixed costs, variable costs})}{f(\text{PPE, working capital})}$$

Most candidates will begin by examining the profit element of ROI. It should become quickly apparent, however that the company's absolute level of profits have increased substantially during the last three years (Profit today = \$25M; Profit today-3 = \$20M). So this road is a dead end.

A successful candidate should examine what level of investment was required to support the observed increase in profits. A line-by-by line examination of a typical balance sheet will indicate all of the relevant categories of capital for purposes of calculating ROI. The following conclusions may then be drawn:

- No increase in A/R minus A/P;

- No increase in net PPE (in fact, most assets are fully depreciated);
- No increase in cash balances; and,
- Significant increase in inventory.

Determining that inventory build-up has negatively impacted ROI is the first-order insight required by this case. Second-order insights will correctly identify the reasons behind this buildup:

- proliferation of “standardized” product lines;
- inaccurate demand forecasts resulting in excess safety stock;
- obsolete inventories of “out-dated” product lines.

Based upon the three factors identified above, management could consider a number of process improvements. A successful candidate should identify one or more of these improvements and should be prepared to discuss potential pitfalls that might be encountered when implementing them:

- Write-off or work-down "obsolete" inventory (this will cause an immediate "hit" on profits, so management may be reluctant);
- Improve demand forecasting to set more realistic safety stock levels (how can the company improve demand forecasting?); and/or,
- Regulate product-line proliferation to avoid future occurrences of problem (how?).

Conclusion

This is a short case, designed to be solved in approximately 15-20 minutes. The important steps are 1) establishing a viable structure, 2) breaking down the problem into its component parts, and 3) continuing to examine issues until the correct ones are identified.

Vindaloo Corporation

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.

In addition, the following information applies (give this to the candidate, only if he or she asks for it):

- Beets grown from the new seeds will produce sugar in a 1:2 ratio rather than the 1:1 ratio that is now prevalent. In other words, now 100 beets produce 100 pounds of sugar, an average of one pound per beet. 100 beets grown from the new seeds will now produce 200 pounds of sugar, or an average of two pounds per beet.
- Sugar is a mature commodity. The wholesale market is \$2 billion worldwide per year.
- The elasticity of demand for sugar is 1.
- The value chain can be broken down into four primary processes:
 - farming (planting, harvesting, and selling beets), which takes 40% of the cost;
 - trucking, which takes 10% of the cost;
 - refining, which takes 30% of the cost; and
 - distribution, which takes 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.
- The worldwide sugar market is predicted to grow at 100% annually.
- We can assume a 100% market penetration, since there are no competing products, and the efficacy of the product is proven.

Solution

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 how much cost saving its product effects – this is similar conceptually to the Maine Apples case.

To solve for the cost savings, we should look at each component step of the overall value chain in turn:

- Farming – The product allows farmers to grow the same amount of sugar on half of the land. 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. If everyone in the world produced twice as much sugar as they were producing before, there would be far more supply than demand. 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 as profitable as sugar currently – this means that it will be only a tenth as profitable as the “new” sugar. Since profits per acre go from X to 1.1X, there is a 10% increase in profits from farming.

- Trucking - variable trucking costs, which represent 95% of the total cost structure, will decrease by 50%, leading to an overall costs savings of $95\% \times 50\% = 47.5\%$.
- Refining – refining costs drop by half because only half as many sugar beets are being refined. However, then there is a 25% increase in costs per beet. So the costs go from “X” to “.5X” to “.625X”, an overall savings of 37.5%.
- Distribution - there are no cost savings in distribution.

Now the candidate needs to weight the cost savings by the amount of costs that each step adds to the value chain, as follows:

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%

So, our client’s product will save 20% a year in sugar costs – multiplied by \$2 billion, 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:

$$Value = \frac{YearlyCash}{(r - g)}$$

We are given the growth rate, g, as 2%. “r” is not given, but we can go with the standard assumption of 10%. Therefore the company can be valued at:

$$\frac{\$400M}{(10\% - 2\%)} = \frac{\$400M}{8\%} = \$5B$$

Conclusion

This is a valuation case and, as such, has a lot of number crunching. But 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.

Zephyr Beverages

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.

Additional Information

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. When asked, the interviewer can reveal the following additional information:

- Chilled beverages are a \$5 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.
- As far as we know, the two companies with more market share than Zephyr are both profitable.
- The two market leaders are able to do more advertising, couponing, promotion, and trade than Zephyr is able to do.
- The market leaders produce pure orange juice and blends that are based on citrus juices. Zephyr's product uses more elaborate blends of juices, usually with a base of pear or peach juice (95% of the inputs) and flavored with cranberries, bananas, mangoes, etc. (the other 5% of the inputs). Pear and peach juice are about the same price as orange juice, but the other flavorings cost about twice as much.
- The market for chilled juices is dominated by mothers with school age children.
- This is a highly price sensitive market that loves coupons, promotions, etc.
- Brand name is important in this market, as in juice boxes and frozen concentrate, as mothers tend to prefer highly reliable products for their children. However, the brand premium must be in line with other branded products. Therefore, all branded juices tend to sell in the same price range.
- One plant in California produces all of the products; chilled, juice boxes and frozen. It would be difficult to find another use for the plant without a major conversion.

Solutions

There are three possible solutions:

- 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 probably 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.

Conclusion

This is a relatively short case that requires the candidate to create a holistic structure for solving the problem. Any of the three possible solutions can probably be argued for persuasively, but the third solution is the one most likely to make economic sense. Prospects that do well on this case will have to be comfortable with ambiguity and with a lack of perfect information.

Prozac (A.T.Kearney)

Fluoxetine hydrochloride – commonly known as Prozac – is the world's most widely prescribed antidepressant, with sales that totaled \$2.8 billion in 1998. Produced by Eli Lilly & Company, Prozac has already been in the market for several years, presenting very impressive growth rates (only between 1997 and 1998, the product accounted for 20% of the company's growth). Prozac is a prescription-only, very high margin product, one that represents approximately 40% of Eli Lilly's earnings.

However, in the last years, Prozac has been facing stagnant and even declining sales in some periods. Eli Lilly's management team is not quite sure why this has happened to one of their most important brands. It is now your job to try to figure out why Prozac's sales are flat/declining.

In order to help you do that, the extremely busy Eli Lilly CEO, Sidney Taurel, will meet you in a VIP lounge at Indianapolis International Airport, between his arrival and his next connection. He will only have 15 minutes, in which time you will be allowed to ask no more than 5 questions. Right after that, you'll have to call your manager at A. T. Kearney's Chicago office and give him your assessment of the situation and a set of potential solutions, so the team can start to work in order to meet the very tight deadline imposed by the client.

What might be causing Prozac's stagnant sales and which are the possible solutions?

Note from Author: I was only allowed to ask 5 questions. That was a new situation for me, as far as case interviews were concerned, so I had to both manage the stress and think carefully on my strategy to get the most out of each question. In a situation like that, there's not one single framework that would help you ace the case. I decided to write this case on a dialog format, based on the notes I took during the interview. I also took the initiative to add some more information, in order to make the write up more complete.

Interview Dialogue

Myself (paraphrasing the interviewer): Prozac is an antidepressant that is only sold under prescription. It has been the first drug in this market and has rapidly grown due to its effectiveness in the treatment of depression. Is that correct?

Interviewer: Yes, it's correct...

Myself (smiling): Did that count as one of my five questions? Ops! I've just missed my second one...

Interviewer (smiling): Don't worry, go ahead...

Myself: So, if this was the case, I would imagine that some competitors tried to follow Prozac and develop similar formulas over the years in order to gain a stake of this profitable market. The

product's impressive record of success may have attracted not only generics but also brand name competitors.

Interviewer: Yes, the company saw the entrance of new products in the antidepressant market...

Myself: So, I will make this one my first question: do any of the competitors exhibit any distinctive feature and/or characteristic (such as higher effectiveness, fewer side effects or lower prices) that would pose a major threat to Prozac? If yes, it would be great if you could describe those specific features and/or characteristics. Question count = 1.

Interviewer: Sure. But before that, let me give you a brief perspective on how the market for antidepressants has developed... Before Prozac was launched, the most commonly used type of antidepressant was called "tricyclics". Those drugs were carefully controlled and largely prescribed by psychiatrists only, due to their serious and sometimes fatal side effects. The innovation Prozac brought to the category was a reduction on the side effects, which prevents users from committing suicide by ingesting large doses of medication. As a result, the number of patients treated for depression grew five to seven times from what it used to be. Now, you're right: Prozac has been a favorite target for both generics and other brand name drugs (such as Zoloft, from Pfizer, and Paxil, from GlaxoSmithKline). Generics basically compete on price (30-40% lower). Moreover, Prozac has been particularly suffering attacks from other patent-protected antidepressants in the same category, the Selective Serotonin Reuptake Inhibitors (SSRI). Those products, among other indications, have been specifically prescribed for General Anxiety Disorders (GAD).

Myself: As you described, it seems to me this is a very mature category and I wouldn't expect much of the growth opportunity coming from category expansion...

Interviewer: Right. If you were in another product category, it could be the case. However, manifestation of psychotic disorders are so apparent that we can assume there are very few untreated patients.

Myself: Right... If other products within the same category are growing, while Prozac's sales have been stagnant or declining, the company must have experienced a decline in market share. Was that loss observed more notably in one particular segment of the market as opposed to the others? Question count = 2.

Interviewer: Yes. Prozac's market share is decelerating pretty significantly in the psychiatrists' offices. So far, prescriptions by primary care practitioners are holding up better, but they tend to follow specialists' lead.

Myself: I see... Apart of the generics, do prices vary significantly among branded drugs? Question count = 3.

Interviewer: No. All of them are at about the same price range. Price only varies significantly between brand name products and generics. As I mentioned before, generics tend to be 30%-40% cheaper in average.

Myself: And when does the Prozac patent expire? Question count = 4.

Interviewer: The basic patent expires in 2001, and subsidiary patents in 2003... I believe should remind you that you only have one question left.

Myself: Yes, thank you. Is there any other information, an important external factor, for example, that I should be aware of before developing my final recommendations? Question count = 5.

Interviewer: Yes, and I'm really glad you asked me that. In recent years, Prozac has deserved more attention from the general media than we probably would like to. It all started at about 10 years ago. Around 8:30 a.m. on September 14th, 1989, Joseph Wesbecker walked into the Standard Gravure printing plant in Louisville carrying an AK-47 assault rifle and hundreds of rounds of ammunition. Within 30 minutes, he killed eight people and wounded 12 others before pulling a pistol from his belt and shooting himself in the head. He had worked for the company for many years, but had found it so stressful that he had been off sick for a year. He was under treatment from a psychiatrist, and shortly before the fatal incident he had been prescribed Prozac. Without Prozac, the killings would have been just another horrifying instance of the senseless mass killings that seem to plague modern life. With Prozac, they became a famous cause. By 1990, 54 civil and criminal suits concerning Prozac had been filed against Eli Lilly, including one by the survivors of Wesbecker's killing spree and the families of the dead. The victims claimed that a reaction to Prozac, not Wesbecker's inherent mental illness, had caused the act and that Eli Lilly had consistently misrepresented Prozac's safety to the Food and Drug Administration and the medical community. Until today, Prozac has been frontally attacked on the general media, which has generated disbelief from the general public.

Myself: Ummm... pretty interesting story. Well, I know your time is scarce, so I would like to summarize my general assessment of the situation and briefly share with you a set of potential recommendations that I will be forwarding to our project team in Chicago. Is that okay with you?

Interviewer: Yes, please, go ahead...

Myself: Prozac has been extremely successful since its launch, rapidly achieving market leadership and still producing high margins. Despite all the difficulties and the tough competitive environment, Prozac is still a very important product on Eli Lilly's portfolio, accounting for a significant portion of the company's earnings. Various factors contribute to the current decrease in sales: a more fragmented and aggressive market, new improved products, and public misjudgment. The development of a new drug could be costly and takes several years before it's ready to go to market. Moreover, the patent expires in a few years.

Interviewer: Good...

Myself: My very first impression is that Prozac fits very well the concept of a “cash-cow”: large market share and high margin, but stagnant/declining sales. But for the development of a first set of hypotheses, I would also consider other less probable possibilities. In order to save us some time, I’ll list some of the possibilities I currently have in mind, and then we can go through each one of them as time permits. Would that be fine?

Interviewer: Yes, that sounds perfect to me...

Myself: Right... Here they are (I took a clean white sheet and started to write in bullet points):

- Do nothing
- Extend Prozac’s life cycle
- Product development
 - Product modifications (expand user base through OTC status)
 - Develop a new antidepressant
 - Develop a new drug in other segment
 - Own R&D capabilities/resources
 - Look for partnerships

Myself: As a “cash-cow”, Eli Lilly should consider “milk” this product, extracting earnings as long as the product survives in the market. The first alternative to that would be to extend Prozac’s life cycle as long as possible. That could be achieved, for example, by prolonging Prozac’s patent protection.

Interviewer: But how could that be achieved?

Myself: Honestly, I’m not very familiar with the mechanisms through which a patent can be extended. Having said that, I would imagine there might be a legal mechanism to do that... And this issue brings us to one of my other points. There have to be a way to prolong Prozac’s life cycle and/or expand its user base. Lobbying might be a valid option. Also, we could consider product modifications that would allow Prozac to be used for applications different of the ones it is currently prescribed.

Interviewer: Right. I think that can be possible...

Myself: ... and if developing a new version of Prozac is possible, imagine if this modified drug could be sold as an over-the-counter medicine! That would bring a huge market expansion potential for Eli Lilly.

Interviewer: Wow! That would be huge!

Myself: In the product development field, I would also explore two addition possibilities. First of all, I would assess Eli Lilly’s current R&D capabilities and resources, and evaluate whether the company is able to: 1) develop the modified version of Prozac we have just mentioned, and 2) develop a new drug, either in the antidepressant market or in any other promising segment. Alternatively, I would recommend Eli Lilly to do some industry research in order to identify

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

potential partnerships. Do you want to get into the details of any of those (pointing to my bulleted list)?

Interviewer: No, actually not. Unfortunately I do have to catch my plane and I do believe we have a pretty good start for this project. Send my congratulations for you're A.T Kearney project team, you did a very good job.

Shamrock Chemical

Advanced difficulty. The candidate will most likely need to be pushed in the right direction at times. Use a leading interview style. The case is designed to see if they can draw the appropriate insights and not structure a solution to a very broad problem.

Question (posed by the interviewer):

The agri-chemical industry has been consolidating for some time, down from 20 to 10 worldwide manufacturers in just 5 years. The market has been declining as genetically modified seed technology and superior farming methods have decreased the need for agri-chemicals.

Shamrock Chemical is a company based in Missouri with several factories across the United States that produce both packaged (dry) and bulk (large quantities of liquid) chemicals used in agriculture production. Shamrock Chemical has long been the beneficiary of its proprietary AIs (Active Ingredients) that have enabled it to charge prices well in excess of its costs. Shamrock has continually invested a large percentage of its sales in its research and development program. Nonetheless, many of its most profitable AIs are about to come off patent and the VP in charge of sales is concerned that Shamrock's EBIT will soon take a nosedive. He wants to know your thoughts on how Shamrock could maintain its profitability over the next few years.

Information to be given if asked:

- Agri-chemicals consist of herbicides, insecticides, and fungicides, which are chemicals, designed to kill weeds, insects, and fungus that destroy or damage crops.
- The average gross margin on Shamrock's products is approximately 60%. There is no correlation between type of chemicals and margins.
- The incremental margin on products is even higher than gross margins. Generic competitors are in the market.
- In fact, other branded competitors of Shamrock have seen share decreases by as much as 20% and price decreases by as much as 30% following patent expiration.
- There appear to be no more break through AIs in development by any of the manufacturers in the industry.
- Shamrock is the result of a several mergers in the past 10 years and is very lean, having reduced nearly all its overcapacity in production. In addition, it calls on the same channel members with a sales force no larger than any of the legacy companies. Lastly, most of Shamrock's fixed assets are fully depreciated.

Solution:

Basic Model to push the candidate towards:

Push the candidate towards a profitability model. But, like the facts above, de-emphasize the cost side. If the candidate continues down that rabbit hole, simply inform him/her that the sales force

portion of the organization that he is consulting for is positive it can get no smaller and the efficiencies of factories and other overhead are beyond the scope.

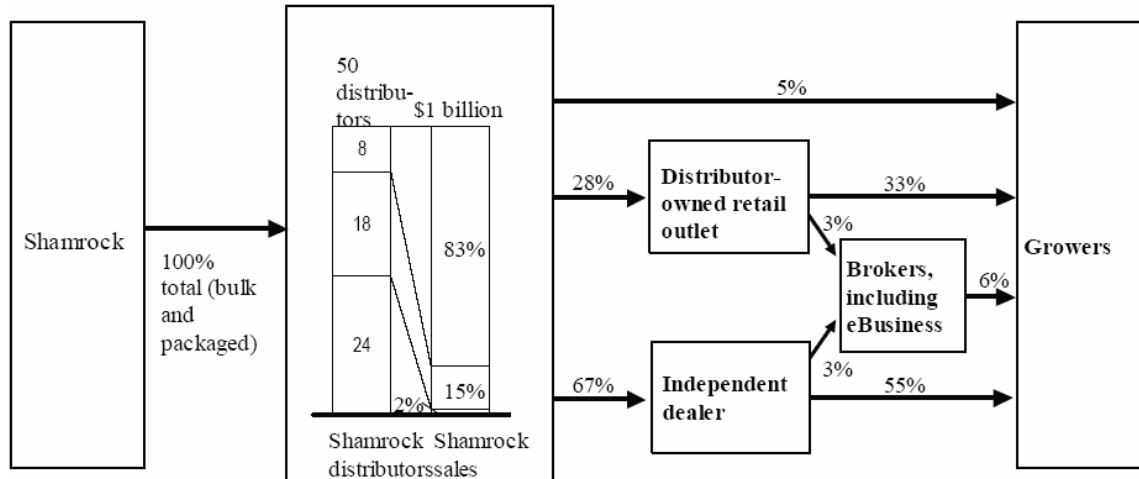
A good basic hypothesis at this point

In order to maintain Shamrock's EBIT, it must maintain its revenues, a combination of volume and price), amidst future generic pressure.

So how do you achieve that?

Distributors: The candidate may have lots of ideas on how to maintain earnings. For example, he/she may explore the idea of advertising, adding services with the product, or aggressively attacking generics through capacity or price competition. These are all logical starting points, but you should first drive them to understand the channel structure of the industry and the two "solutions" that derive from that structure.

Show Exhibit 1



- Exhibit 1 should prompt some questions/discussion.
- Shamrock sells to distributors and distributors sell to dealers. However, Shamrock has salespeople that call on both parts of the channel.
- The exhibit clearly shows that a few distributors account for a large portion of Shamrock sales. This could look like one of two quick wins for the candidate – forward integration or align with the most profitable and influential distributors and insulate against generic competition.
- A good response to forward integration is to ask the candidate why we can do a better job at distribution than the distributors. Don't spend much time on this but mention that distributor margins are low (1-3%) and see if the candidate realizes that it is unlikely that Shamrock could do better.
- A good response to this is to ask them how they keep out generics with the distributors (by them answering or you filling in the blanks it sets them up for success later.) The answer should be around limiting the amount of generics a distributor purchases on your key chemicals as they come off patent. In that way, you limit the amount of generic penetration and minimize the effect of your EBIT (it would probably be unrealistic to believe you could completely stop the flow).
 - Move to dealers: Follow this up by asking the candidate how much distributors influence the dealer/retailers. By looking at exhibit 1, they should see that distributors

only own 28% of dealer/retailers. The independent dealers are in fact not influenced much by distributors.

- This information should prompt the candidate to ask about dealer structure or how it compares to the distributor break out on exhibit 1.

Show Exhibit 2



- Exhibit 2 basically has the same insights as the distributor portion of exhibit 1. A small number of distributors account for a disproportionate amount of Shamrock’s sales. In fact, margins are also small at the dealer/retailer. This pressure, combined with a declining market, is causing increased consolidation at the dealer level.
- Aligning with winning dealer/retailers is a key insight here and was alluded to earlier in the distributor discussion. At this point, we have hit the 80/20 mark. Beyond this, first look for ideas on how to align with winning dealers and prevent generic erosion of market share. Here are a few:
 - Pay them for performance and maintaining share of products as they come off patent.
 - Certain dealers are high service dealers, can generally charge a higher price, and are attracting more and more end-users (farmers).
 - Pay dealers more for higher service and increasing your share of the business.
 - Increase sales force time spent with high service, winning dealers.
 - Collect CRM data to evaluate the profitability of each dealer.
 - End-User: Treat this as a creative section. Another area to explore is how Shamrock interacts with the end-user. There is the possibility to generate increased brand loyalty with farmers and pull the products through the channel. Areas that the candidate could explore:
 - Providing some services to the grower / maybe tying them to products.
 - Increasing the percentage of sales directly to the grower. The largest growers may not want the channel and be willing to split the transaction cost savings.
 - Partnering with down stream users of crops to preference Shamrock treated crops.
 - Find unmet needs of the grower and fulfill them.

Solution:

- Finish the interview by allowing the candidate to summarize and outline how Shamrock should proceed to preserve its profitability:
- Shamrock must align with winning dealers to preserve its profitability. It must reward these dealers for supporting our products and growing our business. Going forward, Shamrock should also determine the viability of selling directly to farmers and providing them with services that strengthen our products' experience and provide differentiation from generics.

Distilled Spirits

You are consulting for a major United States producer of distilled spirits. Their primary products are a line of mid-priced vodkas and two brands of mid-range rum. Over the past few years, the business has become less and less profitable. What are the possible causes?

Information to be given if asked:

- Product
 - The split of product sold has consistently been 60% vodka / 40% rum over the past few years.
 - The selling prices of the two lines are essentially the same.
 - Overall sales are growing at about 3 to 5% per year, the same as the industry average for these product lines.
- Cost
 - Production Costs have remained constant
 - Advertising Costs have remained constant on average
 - Distribution Costs have increased significantly
- Distribution
 - The products are sold throughout the country.
 - In 27 “open” states, alcohol is sold in privately managed supermarkets and liquor stores. In “open” states, shelf space is extremely expensive and trade promotions are critical. Such stores are also becoming less and less willing to hold inventory, which is increasing distribution costs by requiring more frequent deliveries.
 - In the other 23 “closed” states, liquor is only sold through state regulated liquor stores. Distribution costs in these states is much lower, as there are far fewer outlets to service and central warehouses for the state-run stores. Also, Advertising of alcohol is much more tightly regulated, and therefore, advertising spending is lower.

Solution:

A greater and greater share of the volume is being sold in the “open” states, with sales in these states increasing at about 10% per year. Sales in the regulated states are actually decreasing. Because the regulated states are less expensive to serve, and therefore, more profitable, the fact that they represent a shrinking portion of the total has caused total profits to decline.

Commodity Manufacturer (McKinsey)

Your client is a commodity manufacturer (pork bellies for instance). They have the largest market share and the lowest cost producer. The CEO wants to increase profits in the next 3 months. What would you tell the CEO about how to increase profits in 3 months?

Information to be given if asked:

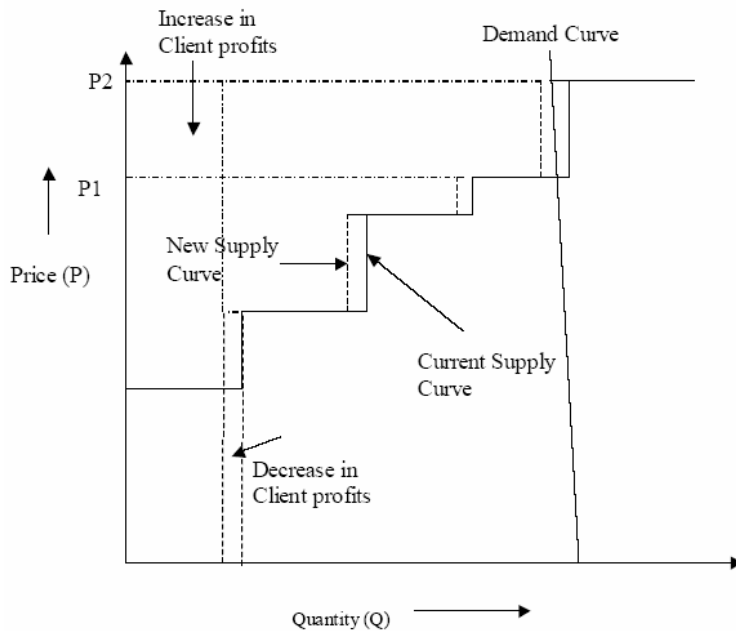
Profits = Revenues – Cost. This means that profits can be increased by increasing revenues and/or decreasing cost.

Costs: We have already established that the client is the lowest cost producer, hence the costs cannot be lowered any further.

Revenues

- Focus on increasing revenues. Revenues consist of Price x Quantity.
- The firm is running at maximum capacity utilization. Hence quantity cannot be increased.
- The only solution is to increase Price.

NOTE: The interviewee should draw the supply curve



Solution:

Commodity Demand Supply Analysis

- The demand is highly inelastic. The two ways to increase price are to increase demand or to decrease supply.
- Due to the commodity nature of the product, it is unlikely that the demand can be increased sufficiently in the short run (3 months). Hence focus on supply.
- The client should decrease its capacity utilization, which will cause the industry demand curve to shift towards the left. This will increase the market clearing price from P1 to P2.
- The interviewee should point out the 2 boxes showing increase (due to increased price) and decrease (due to decreased supply) in client profits. The increase in profits outweighs the decrease here.

Snack Food Company

A large salted snack food company has steadily been losing market share over that past two years, from a high of 20% to the current level of 18%. Profits as a percent of sales, however, have been growing. What could be causing this?

Information to be given if asked:

- Market
 - The size of the total salted snack food market has grown from \$15 billion to \$17 billion during these two years; (the interviewee's conclusion should be that the client's total dollar sales have actually grown, but not kept pace with the market.)
 - The largest competitors are two multinational consumer products companies that feature complete lines of snack foods. Together, these two companies have 55% of the market.
- Product
 - The product line of the client has not changed over this period.
- Costs
 - The costs for the client have changed over this period: (% of selling price)

	Current	Two years ago
Raw Ingredients:	28%	26%
Conversion costs:	24%	24%
Distribution:	8%	9%
Marketing:	16%	18%
Sales force:	7%	9%
Pre-tax profit:	17%	14%
 - The sales force was cut to reduce costs, though the same number of outlets are still covered by this sales force.
 - The changes in the marketing budget come from reduced trade promotions.
- Sales Force/Distribution
 - The products are mostly sold through large grocery store chains and convenience stores.
 - The sales force generally visits each customer at least once per quarter.
 - Promotions usually occur at the end of each quarter. Grocery stores and convenience stores require some type of promotion to grant valuable end of aisle displays or advertising space.
 - Competitors' sales forces are regarded as the best in the industry.

Solution:

The data show that the greatest change is in the sales force numbers. It turns out that the company went on a cost-cutting spree over the past two years. The sales force was drastically cut and the commission scheme was reworked.

The marketing expenditure was also decreased. Most of the reduction came from trade promotions. The product is sold through the same channels as previously: large grocery chains and convenience stores. These channels are traditionally driven by periodic trade promotions.

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

The reduction in trade promotions brought about a loss of shelf space, which has directly led to the decrease in market share. Also, the product line has not changed in the past two years in a product category where new products and line extensions are routine. In addition, the market has been growing, indicating a missed opportunity for new products in the market. Lastly, the increase in profitability has resulted from the lower costs, but may not be sustainable.

Conglomerate ROIC Increase (McKinsey)

Your client is a 5B dollar conglomerate with 50 plants nationwide. They were formed by acquisition of various small firms over the last 10 years and there are still some integration issues. The CEO would like to increase the ROIC of the firm from 10% to 20% in 3 years. Is it possible and how would you achieve this?

Information to be given if asked:

ROIC Definition

- ROIC is Return on Invested Capital. This can be achieved by growing the profits of the firm and/or by decreasing the invested capital.
- There are firms in the industry that have 20-30% ROIC. Hence the client's target looks achievable.

Customers

- Client has 30% customers in Europe, 10% in Asia, 50% in North America and 10% in ROW.
- The client has 2 types of products – Standard (almost a commodity) and Engineered (designed specifically for the client).
- The standard products are getting commoditized, hence have significant price pressure.
- The engineered products have good margins in the 1st year and then the margins decrease in subsequent 3-4 years.
- The client has 30,000 SKUs in their product portfolio.
- The industries that the client serves are as follows:

Industry	% of Revenues	Standard product	Engineered product
Automotive	55%	65%	35%
Electronics	25%	45%	55%
Construction	10%	75%	25%
Others	10%	70%	30%

- NOTE: The interviewee should recognize the following by now based on the Customer Information
 - Client % revenues from Electronics industry are quite low and that industry has the highest % of Engineered products. The client should focus more closely on that industry.
 - Engineered products offer much higher margins.
 - 30,000 SKU seem like a lot, and should address that in the case as well. There will be interdependencies among these products.

Competitive Landscape

- This is a highly fragmented industry with 20,000 competitors.

Investment/Cost

- There are integration issues among the small companies under the client umbrella. The issues pertain to decentralized sourcing, sales staff and back office operations. These should be centralized to decrease cost (economies of scale) and improve coordination.
- The product portfolio needs to be optimized. Evaluate profitability of each product along with its interdependency, i.e. its importance in a product portfolio supplied to important clients. Evaluate profitability of each client as well. Suggest using databases for this analysis.

- Divest assets pertaining to certain non-profitable low volume standard products to decrease capital investment.
- If these components are still needed for a client portfolio investigate outsourcing their production and having exclusive contracts to maintain quality.
- Evaluate the capacity utilization and supply chain for the 50 plants. Decrease investment if possible.

Solution:

The client can increase the ROIC from 10% to 20% by the following initiatives:

- Optimize product mix while keeping product interdependencies in mind
- Sell more engineered products by growing business in electronics industry
- Decrease cost by improving the internal integration

Agricultural Equipment Manufacturing

Your client is a large agricultural equipment manufacturer. Their primary product line, farming tractors, is losing money. What questions would you ask of your client to help them solve their profitability problem?

Information to be given if asked:

Market

- Your client has 40% of the market, competitor #1: 30%, competitor #2: 15%, with the remaining 15% belonging to many small manufacturers.
- Five years ago, your client had 60% of the market, competitor #1, 15%, and competitor #2, 10%. Obviously, your client has lost significant market share to its two competitors over the last few years.
- All three competitors sell to the same customers.

Product

- Your client's product is priced higher than competitors and has historically been the most expensive.
- Essentially the tractors have the same basic features. Of course, tractors are not commodity items and a few differences do exist.
- Your client has a strong reputation/image of quality in the market and the market has always been willing to pay a premium for that reputation because it meant they would last longer and need less maintenance. This can be critical for some farmers because they cannot afford to have a piece of equipment break down at a critical time.
- Client has been involved in product improvement efforts-- tightened tolerances and improved the durability of component parts.
 - They have needed to buy more expensive parts to execute this.

Margins

- Sales quantity and revenues are down.
- However, price and costs are up. Fixed costs are constant while material costs have increased. The client has no answer as to why material prices have gone up so staggeringly.
- The operation is primarily an assembly operation and finished part prices have gone up.
- Client does not think that raw material prices or labor costs for your suppliers have increased.

Solution:

It turns out that prices have been raised to cover the costs of these improvements, but customers do not value these improvements unless they are essentially free --so sales are down. The client needs to incorporate a cost/benefit analysis procedure into its product improvement process. Don't forget though, that you must consider the long-term effects of these decisions.

Paint Manufacturer (McKinsey)

Your client is the CEO of a paint manufacturing company. One McKinsey team has previously worked on optimizing their cost structure. The CEO wants to further improve their profitability. How would you analyze the situation?

Information to be given if asked:

Industry Structure

- The industry growth rate is same as GDP growth.
- Client has 30% market share.
- 2nd competitor has 35% market share. There are number of small regional and local paint manufacturers as well which serve the rest of the market.

Customers

- The customers are of 2 types: Professionals (contractors) and Private Consumers.
- The customers are not very loyal (recognize this as an issue to be addressed later if time permits).
- They have multiple brands and have good basic quality paint.

Firm's Economics

- The total revenues are 1B.
- There are 3 sales channels as follows:
 - Company owned stores: 600M in sales. Focuses on contractors (professionals).
 - Consumer division: 300M in sales. Sold through mass merchandises.
 - Independent dealers: 100M in sales. Sold to local mom & pop stores. The client maintains a separate set of warehouses to serve this channel.
- Make the candidate calculate the Profitability numbers as below:

Channel	Revenues	Return on Sales	Profits
Company owned stores	600M	5%	30M
Consumer division	300M	3%	9M
Independent dealers	100M	1%	1M

- The target for the firm is \$80M.

Competition

- The competitors also have 3 distribution channels. There is no data on competitor's profitability.

Solution:

- The candidate should recognize that company store channel, which focuses on contractors (professionals) have the highest ROS (return on sales). The company needs to focus on this segment.
- The independent dealer channel has the lowest ROS. The company needs to re-evaluate their strategy/presence in that channel.
- The client needs to focus on their sales force and strengthen their relationship with the contractors. Since loyalty is an issue, introduce switching costs. Some techniques are order automation by establishing web presence, which will allow the contractors to quickly and easily re-order.
- Re-evaluate the sales force compensation and their commission structure.

Super Regional Bank

You have a have recently been assigned to a project with one of the nation's super regional banks. The bank is one of the top 10 largest retail banks in the country. Like most banks in its class it has branches in 8 geographically contiguous states.

Your client has recently concluded that the old "local branch" way of business is no longer viable. Typically, this bank has canvassed its territory with small freestanding branches; however, the new age of electronic banking and commerce is changing all of that. They are considering replacing many branches with Calling Centers. Calling Centers offer both live and phone automated services that may be accessed by phone. The new Centers would offer virtually all of the services currently offered through local branches plus some additional things.

The question to you is: how would you go about setting up the engagement to determine the viability of this new concept? Specifically, what kinds of things would you investigate? And what hypothesis would you form?

Solution:

Summary: It probably is best setup as a cost benefit analysis. The number of new customers times the expected revenue from them plus the additional revenue generated by potential new services plus the cost savings must outweigh the forgone revenue generated by the customers you end up driving away.

This is a very open broad-brushed case. There certainly is no right answer; however this type of case occurs frequently. The following is a guideline of some things you should probably consider:

Market analysis: What kinds of customers would be attracted to this no service? What kinds of customers would be turned off? (Hypothesis: younger people would be heavier users and more attracted than older) Of the people attracted to this new service, how profitable are they? How profitable are the people who are turned off by this service? (Hypothesis: older people have more money and thus are more profitable)

Revenue: What types of new services could be added to increase revenues? Automatic bill payment, Fund transfer, etc.

Cost Savings: How much would it cost to establish a Calling Center and what are the risks involved? Do we have the expertise in-house to do this? How many branches could we close? Can we cut down on traffic to existing branches - thus requiring fewer tellers?

Local Banking Demand

How would you determine whether a location in New York City holds enough banking demand to warrant opening a branch?

Suggested framework:

Because this is a demand-oriented question, one should consider a marketing framework, such as the 4 P's.

Solution:

The demographics of the area surrounding the prospective branch should be examined. Population, business concentration, income levels, etc. should be compared with those of historically successful branches.

Competitor reactions could easily make this venture unprofitable, so it is essential to anticipate them. These will depend on the importance of the area to competitors (in terms of profit, share, etc.)

The client will have to match competitors' incentives to customers and should estimate the cost of doing so.

The client must examine if the new branch would complement their existing competence and strategy (retail or commercial, high growth or high profitability, etc.) and what purpose it would serve. If the need focuses on deposits and withdrawals only, maybe a cash machine would suffice.

Cement Manufacturing Capacity

You are consulting for the number-one producer of cement in Portugal. This company currently has 45% of the market, and feel it could have more, but is running at 100% capacity of their one plant, located near Lisbon, in Southern Portugal. The CEO has asked you to help him decide if they should build another plant or expand the current plant.

Information to be given if asked:

Cost

- The cost structure for cement production is as follows:

Raw materials	28%
Labor and allocated fixed costs	16%
Distribution	26%
Sales and overhead	18%
Pre-tax profit	12%

- Raw materials are purchased from a government-owned company, and prices are set by a yearly contract with the government.
- The plant is unionized, and extra shifts are not possible.
- The fixed cost of plant additions is roughly the same as the cost of a new plant of the same capacity.

Logistics

- The trucks are owned by the company, and transport all products directly to the customers throughout the country.
- Customers pay for trucking by the mile.

Prices

- The company's selling prices are set by prevailing market prices in Portugal.

Location

- Land is available to expand the current factory; there is also a suitable site near Porto, about 200 miles to the north.
- Approximately 80% of the customers are within 100 miles of the current plant.

Solution:

As distribution is the second-largest cost item, it makes sense to minimize distribution costs in choosing the site of the next facility. From the data, it is safe to assume customers that are further away are less inclined to buy due to the increased trucking costs. Therefore, location of the plant in the north may increase sales in the north by reducing delivery costs to these customers.

Candy Company

Your company is a rather successful producer of candy. It originally started as a single product line. The production process consists of two basic activities: manufacturing and packaging. The firm has also expanded its sales through product line extensions. Management is concerned that sales are growing but profits are not increasing at the same rate. What can your company do?

Information to be given if asked:

- Raw materials are commodities with cyclical prices which have fallen in recent years but are expected to swing up again. Labor and fixed capital has increased per unit over-proportionally compared with ten years ago.
- The company's controlling system still focuses on the manufacturing part of production and the cost explosion occurs in packaging (candy is candy, the product line extension is primarily an issue of different packaging.)
- Controlling schedules manufacturing which is rather efficient already but not packaging, thus causing slack in labor and fixed capital (small batch sizes, high setup times.)
- Revenue killers: concentration of retailers, trade brands, retailers demand large introductory discounts for new products, high failure rate of new products.

Solutions:

- Reduce product line if customers (retailers) are willing to accept the reduced product line.
- Reduce low margin trade brand production.
- Emphasize pull marketing, reduce introduction rate for new products.
- Introduce controlling/scheduling measures for packaging.

Direct Mail Retailer

You are consulting for a direct mail retailer that sells ladies clothing. Your client's catalog printing and postage costs have just increased to thirty-two cents per catalog. How can your client decide if the new price is acceptable?

Information to be given if asked:

- The average response rate for catalogs mailed is 2%.
- In addition, 25% of customers who order product can be expected to reorder within six months.
- In other words, each 100 catalogs mailed results in 2.5 orders placed.
- The average order size is \$80.
- The fully allocated profit margin (excluding mailing costs) on catalog orders is 15%.

Solution:

- For each 100 catalogs mailed, printing and postage costs are \$32. (100×32 cents).
- Each 100 catalogs will result in 2 orders, plus $2 \times 25\%$, or .5 additional reorders, for a total of 2.5 orders placed per 100 catalogs mailed.
- 2.5 orders will result in 2.5×80 , or \$200 in sales. At a profit margin of fifteen percent, these sales will return a total profit of \$30.
- The \$30 profit is not sufficient to cover the printing and mailing costs of \$32. Therefore, the client should reject the printing arrangement at 32 cents per copy.

Selective Binding

Your client is a major fashion magazine that has been offered by its printer a proprietary new process called selective binding which enables publishers to customize the pages included in readers' magazines based on demographic data known about the reader. For example, an ad in Better Homes & Gardens for lawn chemical services could be placed only in those issues going to subscribers who live in houses and not to those living in condominiums or apartments. In this way, advertisers can focus their communications on the demographic segment they are targeting. Would you advise your client to take advantage of this new process and offer selective binding to its advertisers?

Information to be given if asked:

Readers

- The magazine's database can make demographic breakdowns between subscribers who make under \$50,000 and those who make over \$50,000.
- There are 1 million readers, 80% of who are subscribers.
- Twenty-five percent of subscribers make under \$50,000, 75% make over \$50,000. The same mix applies to the newsstand buyers according to readership audits.

Advertisers

- Most advertisers are selling high-end fashion products, so 75% of them are targeting the high-income group.

Costs

- The service is being offered to your client free for 3 years since the printer wants to promote the service's use by getting a major magazine to start using it.
- The client charges \$50 per thousand per full-page ad (selective binding can only be offered on full-page ads). Therefore revenue associated with a single inserted page (front and back) in an issue is \$100 per thousand.

Competition

- The client's closest direct competitor has 500,000 readers, 100% of whom are subscribers. Effectively, all of their readers make over \$50,000. They charge \$70 per thousand for their full one-page ads.

Solution:

The Magazine would want to consider offering the service to its advertisers if it would be able to enhance its earnings by being able to charge its advertisers a premium for being able to more exactly and efficiently target the demographic segment they want to reach. Of course the increased revenue from the any premium must be able to offset any revenue lost as advertisers stopped targeting.

Cost/Benefit Analysis

Since the printing cost to the client of selective binding is zero, the client simply needs to evaluate cost on the basis of revenue per thousand gained or lost as their advertiser base uses the service to better target their ads to their desired segment. Presumably, instead of 100% of advertisers paying the full \$50/thousand per page, the 25% of advertisers targeting the lower income segment will choose to advertise only to the 25% of subscribers targeting the high income segment will choose to advertise only to the 25% of subscribers falling into that segment and the 75% of the advertisers targeting the high income segment will advertise only to the high

income subscribers (75% of subscribers). Assume that all advertisers continue to advertise in 100% of the newsstand copies. The revenue effect of this change can be calculated by looking at the impact the change would have on average ad rate per thousand on subscription readership: New ad revenue per page = Old ad revenue per page X [(% low income subscribers X % low income target advertisers) + (96 high income subscribers X % high Income advertisers)] Thus, new ad revenue per page = \$50 X [(25% X 25%) + (75% X 75%)] at old rate \$31.25 < \$50 Now the question is, can ad rates per thousand on the selective binding portion of ads sold be increased sufficiently to increase average revenue per thousand over what it is today? To answer this question, your client's ad rates must be looked at from the perspective of their advertisers. If you consider the advertisers targeting the high-income group, their alternative to advertising in your client's magazine is to put their ad dollars toward the 100% high-income readership competitor. The cost per thousand high-income readers with the competitor magazine is: (Page rate X total readership)/ (portion of readers who are high income) = (\$70 X 500,000)/500,000 = \$70

Thus \$70 is the maximum price per thousand the client can charge its advertisers for selectively bound ads before the advertisers would switch to their competitor. Note that currently, the client is a cheaper buy for these high-income advertisers even though they are paying to reach readers they do not want:

$$(\$50 \times 1 \text{ million}) / 750,000 = \$66.67$$

If the client charged \$70/thousand for selectively bound ads, average revenue per thousand to the client would be:

$$\$70 \times [(25\% \times 25\%) + (75\% \times 75\%)] = \$43.75$$

Solution

- Since \$43.75 is less than the \$50 that advertisers are currently paying, the magazine should not offer advertisers the selective binding service.

Of course, there are other issues which interviewees might want to mention such as the possibility of price discriminating between high and low income advertisers, the potential for and cost of expanding the advertising base using selective binding as a selling tool, etc. However, it is important by the end of the interview to have reached a recommendation regarding the initial question posed by the interviewer. To mention these other possibilities and areas for further investigation is certainly worthwhile, but it is also important not to get too far off track or to complicate the issue so much that a final recommendation is never reached.

Iberia Gasoline (DiamondCluster)

For the past thirty years the national government has set the retail price of gasoline for cars. Under a new market reform program the government has decided to allow the gasoline distribution companies to determine the retail price of gasoline for cars.

The CEO of Iberia Gasoline has hired us to advise her on an appropriate strategy for pricing in the country.

What would be your recommended price on the first day of deregulation and your ongoing pricing strategy?

Information to be given if asked:

Current Situation and Process

- The Ministry of Transportation previously changed the price weekly to assure that the distribution companies make €1.10 per liter in gross profit.
- Gasoline is refined to three levels Supra, High and Regular that refers to the level of octane and the degree to which the fuel is unleaded. All firms sell in proportion of 40%, 30% and 30% at the prices of €1.75, 1.60 and 1.50 per liter respectively, with the same gross profit (€1.10).
- In a deregulated environment firms have the capacity to change prices hourly at any service station based on the pricing strategy.

Consumers and Growth

- Consumers are price inelastic across a broad range of prices, but do go to service stations based on price, convenience and ancillary services.
- Currently gasoline sales have been growing 5% per annum as more people live in suburbs and commute by car to work.

Competitive Analysis

- Currently there are three companies that have 95% market share. Iberia Gasoline has 45% market share, whilst the remaining two firms have 25%.
- Iberia's market share is consistent throughout the country with no one firm dominating one region or city.
- Each firm solely distributes gasoline; no firm is involved in oil exploration, extraction or refining. Consequently all firms pay essentially the same amount for refined gasoline which they then brand, distribute and sell.

Government Regulations

- Currently the Ministry of Transportation will not allow gasoline retailers to vertically integrate into other areas of gasoline distribution.

Extra Credit

- In addition, to gasoline retail gasoline sales the firms also engage in retail activities by co-locating mini-markets in the gas stations that sell items such as soda, cigarettes, snack food, etc. Industry research shows that this area has been the fastest area of growth (10% pa) for the firms and nets (25%). However, Iberia Gasoline has been growing at 15% and nets 30% due in part to its superior selection and perception that it is a price leader.

NOTE: The consultant should provide a calculator

Impact on Gas Sales			Today			
Price	150	155	160	165	170	175
Volume	104	102	100	98	95	75
Revenue	15600	15810	16000	16170	16150	13125
Total Cost (150)	15600	15300	15000	14700	14250	11250
Net Profit	0	510	1000	1470	1900	1875
Impact on Retail Franchise						
Number of Cars	14	12	10	8	6	4
Retail Sales per Car	1000	1000	1000	1000	1000	1000
Gross Revenue	14000	12000	10000	8000	6000	4000
Net Margins	30%	30%	30%	30%	30%	30%
Net Profits	4200	3600	3000	2400	1800	1200
Total Profit	4200	4110	4000	3870	3700	3075

Solutions:

There are two key areas to consider.

- Firstly, recognize that retail gross margins on gasoline range between 5.8% and 6.8%, with net margins apt to be under 2%, well below what most companies want to earn therefore so price increases are in order. As a market leader, Iberia should clearly signal that they want to raise prices. The firm should actively change prices to maximize yield on their service stations as competitors change their prices. At this point the interviewer should provide different volumes-price scenarios for interviewee to calculate profit-maximizing price (give the above Table to the interviewee).
- Secondly, the gross profits are the same across products. Iberia should explore if all segments are equally price sensitive. Finally (for extra credit), firms are making most of their money in the convenience stores so driving car volume through the station is key.
- Finally, the interviewee should be tested in three categories: demonstrate understanding of revenue curve on incremental price over competitors on each litter and diminishing volumes, the impact of retailing on overall profit growth, and ideally the interrelations between gasoline sales, retailing and overall profits.

Summary (Paraphrase based on elevator test)

- Margins on gasoline erode shareholder capital and should therefore be raised to provide adequate returns.
- Competitors face the same costs and will follow suite. If we're wrong we can always lower prices and lose little. If we don't take a price leadership then we may permanently lose the chance to do so later. The upside of this strategy is high, whilst the downside risk is low.

Pipeline Company

You are hired by a large pipeline company to evaluate the current and future potential of the pipeline industry. The pipeline industry sprang up as transportation costs for mineral extraction companies began to escalate. There is currently 20,000 miles of pipeline throughout the U.S. What information would you want to know about the pipeline industry that could help you plot a strategy for a pipeline company?

Information to be given if asked:

Industry Structure

- Pipeline can be characterized as either common carrier pipelines (~70% of all pipeline miles) which are regulated by the government and proprietary pipelines (~30% of all pipeline miles) which are wholly located on the private property of a firm (e.g. a pipeline from a port station to a near-shore refinery).
- There are many suppliers of common carrier pipelines.
- The second group (proprietary) is not regulated by the government.

Products

- The pipelines carry liquid and gaseous materials -- crude oil, natural gas, methane gas, liquid nitrogen, refined oil products (gasoline), and chemicals.

Cost

- There are exceptionally high fixed costs involved in a pipeline.
- The variable costs are primarily the electricity to power pumping stations along the pipeline. There are different cost structures depending on the type of product being moved. Pumping crude oil along the pipeline can cost as much as \$2M/month in electricity for a station. Gaseous products require considerably less energy to move.

Market Conditions

- U.S. proven reserves are diminishing and foreign imports are increasing. It is expected that for the next 5-10 years demand will be steady.

Solution

(classic Porter analysis could be used -- This is rarely the case!!!)

- Threat of Entry is low because ...
 - there are high fixed costs (high initial investment)
 - pipeline services are essentially a commodity product (commodity markets are slow growth and unattractive)
- Industry Rivalry is strong because ...
 - there are many competitors and switching costs are low
 - industry growth is expected to be slow (i.e. market share is important)
 - many competitors use pipeline for in-house uses and only carry other products if capacity is underutilized
 - there are very high exit barriers (i.e. there is a strategic relationship between refining and piping)
- Substitute Products are many...
 - by proliferation of tanker cars and tractor trailer rigs for liquid and gaseous materials
- Power of Suppliers is not a significant factor.

- Power of Buyers is not a significant factor because many pipelines are regulated and there are many buyers
- Other considerations:
 - Product Mix: The margins on gaseous products is higher than heavy unrefined products.
 - Government Regulation: Margins are greatly affected by common carrier status. Any future environmental regulations will cut even deeper into margins.
 - Pipeline as a storage medium: For many firms the product in a pipeline can be a significant portion of its inventory and the volume in line must be considered in production. The classic question: Is it better to make product and sell it now at low prices or wait for prices to increase (e.g. crude oil prices)? A large pipeline could be a temporary storage facility.
 - Operations: Maximizing profit means understanding the parameters of pumping -- costs of pumping at less than full capacity; layout of pipeline and pumping stations; products which can share the same pipeline; construction of parallel pipelines.

Market Differences: The market for crude oil is very different than the market for specialty chemicals or natural gas. The pipeline manager must aware of these rapidly changing commodity markets to maximize his profit.

Permanent Light Bulbs

A small R&D lab in the Swiss Alps has developed a super-durable filament for light bulbs; with this filament, the light bulb will never burn out. The lab is ready to license this product to a light bulb manufacturer. What will be the effect on the light bulb industry?

Information to be given if asked:

Market

- The light bulb industry is dominated by two multinational producers. The two companies sell their products side by side for essentially the same price in similar outlets internationally.
- There are a several small local players in various regions of the world who produce local brands and some private store brand light bulbs.
- There have been no technological innovations in light bulbs for many years.

Possible solutions:

One outcome is that one of the two major players purchases the technology. If the technology is patented and exclusively licensed, this player may enjoy an advantage for a limited time. If the producer makes enough bulbs at a low enough cost, all customers will eventually switch over to the permanent light bulb, thereby drying up the industry, putting the competitor out of business and greatly reducing their own business.

Another solution is that all of the players obtain some version of this technology. If that were to happen, the price for this product would decline to the normal industry profit level, and customers would shift to the permanent light bulb. Over time, all bulbs would be permanent and the industry volume would greatly decrease, making the industry more competitive and wiping out industry profits.

Aluminum Can Manufacturer

An aluminum can manufacturer has discovered a way to improve its manufacturing process. As a result, its manufacturing cost has been reduced from \$0.89 to \$0.79 cents. How can the manufacturer best exploit this cost advantage?

Information to be given if asked:

Market

- The client is the leader in its market with a 40% share and supplies directly to major beverage manufacturers.
- The number two player in the market has about 30% of the market and many small competitors share the rest.

Substitutes

- Aluminum cans have a lower priced substitute, steel cans, which have inferior printing and stamping characteristics.
- Steel cans are used by customers who do not want to pay the premium for aluminum cans.

Suggested frameworks:

Remember basic economics. The firm can either use a penetration strategy or price skimming strategy. Consider the impact of either strategy on the company and its competitors. Also, don't forget to think about any substitutes for aluminum cans.

Solution:

Clearly, the client should either drop price or reap additional profits.

If the client drops prices, other competitors will have to follow since this is a commodity market and not following would mean a quick demise. The lowering of prices might increase the client's market share marginally, but some smaller competitors will have to start exiting the industry and larger competitors will have to start investing to discover the client's cost advantage.

At the same time, steel can users will start switching to aluminum cans, thus hurting manufacturers in that market. The resulting growth in the aluminum can market will attract steel can manufacturers to enter it. Since some steel can manufacturers have deep pockets and a strong backing, these new entrants could pose a future threat to our client.

In conclusion, it is best to retain prices and generate extra profits for now. The cost advantage may help another day during a price war.

Scientific Industry

A manufacturer of scientific instruments is experiencing declining sales in its major product line. Why?

Information to be given if asked:

Products

- The instrument, call it Y, is able to perform elemental mapping; that is, it is able to determine the specific composition of material placed in the chamber for observation. Y is an accessory for larger and much more expensive instrument that functions almost exactly like a microscope, which we'll call X.
- Our client's product is regarded as one of the best in the market.
- Aside from Y, the client recently began manufacturing X. Additionally, it produces an unrelated product.
- Product X can be used by itself, but Product Y is essentially dependent on Product X for its operation. As a result, except for replacement sales, Y is rarely sold individually. In fact, Product X's sales force will frequently recommend that a buyer purchase a certain Y while buying an X. Two years ago, over 30% of our client's sales were generated by another manufacturer of X.
- The client's product X competes directly with other manufacturers of X, and particularly the manufacturer that was selling our Y. The client introduced X 1 ½ years ago.

Sales

- Currently, 5% of sales come from recommendations from other manufactures.
- The markets for X and Y are flat,

Customers/Demographics

- There are two basic user groups: industry, primarily semiconductor manufacturers, and academia (in research labs).
- What we've noticed lately is that the specific users in each of these groups, who also happen to be the primary buyers, have become relatively less sophisticated; that is, they are hired just to run the instruments and know less about their technical qualities.
- These buyers have become even more dependent on the sales forces.
- What has happened is that our client alienated itself from other manufacturers of X at a time when a strong relationship was becoming even more important than it used to be. The buyers are relying more and more on the X sales force, which are typically called well in advance of the Y sales force.

Solution:

This is the second part of the main reason for our clients declining sales: in addition to ruining their relationships with manufacturers of X by producing their own, they happened to do so at a time when relationships became even more important.

Information Services Company

You are hired by a library information services company that provides a computerized article search product on CDROM. The product allows users in a library to locate articles by keyword search.

The company currently has a weak market share of only 10% of all installed units. The company wants to understand

- why they have so small a market share,
- what could be done to improve the situation, and
- where it should focus its resources.

Information to be given if asked:

Market

- There is a single major competitor which has 50% market share. The client and two other competitors each have 10%; and the remainder is divided among many competitors.
- The following table outlines many of the details of the market segmentation and client product data.

Type of Library	# of Libraries	Client Mkt. Share	Competitor Mkt. Share	Competitive Features
Academic	5000	20%	60%	
• Research	500	80%	10%	Search Quality, Content
• Other	4500	13%	66%	Content, Ease of Use
Public	10000	10%	40%	Content, Ease of Use
Secondary	20000	~0%	10%	Price, Ease of Use

- Competition within the industry focuses on four dimensions: (1) Search Quality, (2) Content, (3) Ease of Use, and (4) Price. The table above indicates the relative preference for these features for each market segment. There is a trade-off between ease of use and search quality. A better search requires a more skilled approach to keyword usage and often makes the search more difficult. The client’s product is considered to have the highest quality search among the competitors.

Product

- The client sells a CD-ROM based product which is used on a dedicated PC in a library. The product has different versions that are upgraded each year. Each version is marketed to a specific library segment. Libraries are interested in matching the article search to hardboard volumes available within the library. The client’s product is considered to have the highest quality of article search.

Pricing

- The client sells its product at a 25% discount to the major competitor and has the lowest prices in the industry.
- The pricing and profit schedule for each version are shown below.

Library	Client Price	Client Profit per Unit	Major Competitor Price
Academic	\$2000	>\$500	\$2667
Public	\$1500	\$500	\$2000
Secondary School	\$1000	\$100	\$1333

Production

- The product is created by programmers who seek to match the product to library volumes. Since the principal input is labor, the type of CD-ROM created can be altered relatively easily.

Solution:

- The client's product does not match the needs of the large segments of the market (i.e. the client's high quality of search only appeals to a small segment of the total market) ==> weak market share
- The client should reallocate its resources to create products in the larger market segments -- products that emphasize content and ease of use over search quality.

The most profitable segment can be identified by using current client prices which should allow the company to gain market share (due to the 25% discount to the major competitor) and calculating the maximum market profit. Academic = $5000 \times 500 = \$2.5M$; Public = $10000 \times 500 = \$5.0M$; Secondary = $20000 \times 100 = \$2.0M$.

Therefore, if we realign our product to emphasize ease of use and content, the potential profit is $4500 \times 500 + 10000 \times 500 = 7.25M$ (minimum since profit in academic segment is $> \$500$ per unit).

Meat Packing Industry

Your client is a US firm which owns a meat packing plant in Spain. Over the last few periods profits have steadily declined, despite growing sales. You have been hired to figure out why.

Information to be given if asked:

- Porter's five forces are useful.

Suppliers

- Independent farmers with little power against your client. Therefore, the costs of your raw material cannot be the issue.

Market

- The market is fairly regional; hence transportation costs and competition have not changed dramatically.
- No introduction of a substitute product.

Costs

- Production costs have remained stable.

Solution:

Since there are stable costs, and strong sales, the only other alternative is the price of your product. Investigate this avenue, and you will discover the buyer link. Your margins are being squeezed due to the increasing concentration and buying power of your customers.

Merger Candidate in Chemical Industry (McKinsey)

A major chemical producer has retained McKinsey to evaluate another major participant in the industry. Both companies are bulk commodity chemical producers. We have been asked to begin our work by analyzing the future prospects of the target company's major product line, a bulk chemical used in the production of plastics.

Essential facts include:

- Production of this chemical has slowly declined over the last five years
- Prices have declined rapidly

There are 7 to 8 major producers; the largest producer has a 30 percent share; number two has 20 percent; out target company has 15 percent; the rest is divided among other competitors

The two largest competitors earn a small return; target company is probably at break-even; rest are operating at break-even or loss The largest competitor has just announced construction plans for a major new plant. How would you structure an analysis of the target company's future prospects in this product line?

MINIMUM REQUIREMENTS

The candidate should, at a minimum, address the following issues:

- What markets use this chemical, and what has been the nature of growth in these markets? (End-use markets are largely automotive-related.)
- How much overall capacity exists now? (Far too much.)
- What has been relative capacity utilization of competitors in the industry? (60 to 70 percent for last 3 years).
- What are relative cost positions of competitors? (related to size/efficiency age of plant; target company has reasonably "good" position.)

BETTER ANSWERS

Better answers will move beyond the previous answers to consider:

- How rational is pricing? (Prone to self-destructive cuts to gain temporary share points.)
- Are there niche or value-added uses for chemical? (Not really.)
- Does the chemical have a major by-product or is it a by-product? (Not of significance.)
- How often have companies entered/exited, and how expensive is entry/exit? (Entry expensive; exit cheap for most because older plants are fully depreciated.)
- How important is this product line to each of the competitors? (Most producers are diversified.)

OUTSTANDING ANSWERS

The best answers could address:

- Reasons for announced capacity expansion. (It is a bluff to try and get smaller competitors to shut down.)
- Is regulation important? (Yes: all competitors have installed pollution control equipment.)
- What is nature of operational improvements that target company could make? (lots.)
- How is product sold and distributed? (Economies of scale in marketing and transport are critical.) Is there synergy between our client and target? (not really.)

Machine-loading

A client produces a range of synthetic materials in varying widths and lengths. Each material is used for packaging but differs in physical properties in terms of costs, weight, flexibility, and general performance. Each material can be coated with any one of four or five types of chemical coating which make the materials more or less impervious to heat, light, water, vapor, etc. All of the machines on which these materials are made are housed in one enormous factory location. Each machine is capable of running any one of the various materials and/or coating combinations. The client does not wish to invest in additional equipment at this time. The client has asked us what combination of products he should run to increase his plant's profitability. How would you go about determining the optimal mix of potential products on these machines?

Information to be given if asked:

Market

- The industry is highly fragmented. A variety of small manufacturers supply similar products to provide a range of customers. Our client estimates he has less than 1 percent of the total market. No competitor has more than 3 percent of the total market

Cost/Price

- Each product has a different cost to manufacture dependent on materials used and the manufacturing process.
- Each product has a different price dependent on both the client's cost to manufacture as well as the market for the product.
- Our client uses primarily commodity products in the manufacturing process. All can be obtained from a number of sources.

Process

- Our client's machinery can produce hundreds of different products. Some are unique to meet specific customer requirements while others are used by a wide variety of customer.

Customers

- Our client's customers are primarily consumers or industrial product manufacturers who use the synthetic materials in packaging their own products.

NOTE TO THE INTERVIEWER

The primary issue of the case is to determine that the profit of the plant will be minimized when the most profitable product mix is produced and sold. The candidate should cover differences for each product in the fixed and variable manufacturing and selling cost and prices, as those must be determined to understand each product's profitability. The interviewee should also address the market demand for each product (to ensure what is produced can be sold at an acceptable price). If the candidate is discussing issues which are not relevant to the profitability of each product line or to maximizing the profitability of the plant, repeat the question and ask how the issue being discussed will lead to a solution for the client.

MINIMUM REQUIREMENTS

Candidate should, at a minimum, address the following issues:

- Are there market limitations to the potential production of any one material?
- Is there competition for these products?

- Are there differences in costs in the manufacturing of these materials? For example, do some coatings cost more than others? Do some materials have inherent cost differences?
- Is there flexibility in pricing of these products?

Additional observations should include:

- Are there differences in setup time and cost for various materials or coatings?
- Do these materials move at different speeds through the machines?
- Are the machines truly interchangeable or are some better suited to one product or another?
- Is there unlimited market demand for these products?
- Are there technological displacement or replacement products on the horizon?

OUTSTANDING ANSWERS

The best candidates will formulate a profit maximization algorithm. The best algorithm is to maximize the profit contribution per machine hour.

- Profit contribution is (unit volume) times (unit price minus variable cost).
- Machine-hour capacity is a surrogate for fixed costs per unit of volume. Fixed costs take into account depreciation and standby costs as well as those costs that are independent of the variable costs per pound or ton produced.

An outstanding answer must include recognition of the asset costs and capital implied by that, as well as the income or profit contribution. Also, the potential substantial differences in volume produced per machine-hour and/or the price obtainable in the market demand and competitive actions.

Telecommunications Diversification

A Baby Bell company is interested in diversifying into other areas besides telecommunications. They are considering entering the market for electronic home security systems. Would you recommend that they do so?

Information to be given if asked:

Company Background

- The company is a holding company. They have previously made unsuccessful forays into software and into real estate.

Market

- The home security business is highly fragmented. The top five players in the industry generate less than 4% of the total industry revenues.
- This implies that the industry largely consists of small, regional companies.
- 10% of all residences currently own an electronic security system.
- It turns out that the “expensive home” segment of this market is saturated. Growth has been slow in recent years.
- Price sensitivity is unknown in “moderate-priced home” segment.

Costs

Item	Retail Price	Cost / Margin
Equipment and Installation	\$500 - \$1,500	0-10% margin
Monthly Service	\$20 / month	\$5 / month

Suggested frameworks:

Use an industry attractiveness framework, such as Porter’s Five Forces, to determine whether this is a business you want to be in, or at least to determine what kind of returns you can expect to achieve. Then, use the value chain to look at where value is added in the home security business. Finally, once you feel you understand the market, determine if the core competencies of the Baby Bell are likely to match the demands of the home security markets.

Solution:

The conclusion is that this business is a reasonably good fit for the company, but that more market research needs to be done to assess the growth and profit potential of each segment of the market.

Packing Material Manufacturer

Your client is the largest North American producer of a certain kind of bubble-pack packaging material. Currently, the company has 80% of the market, and has asked your firm to assess the strategic outlook for this company. How would you begin to assess the future for this client, and what type of recommendations could you make?

Information to be given if asked:

Costs

- The product costs can be broken down as follows:
 - 20% for polyethylene, a plastic chemical
 - 35% conversion costs, including allocated fixed costs, labor and energy costs 10% distribution and storage
 - 15% marketing and overhead.
- Profit margins are 20%. Polyethylene is a commodity chemical.

Technology

- The factory is thirty years old, and the technology used is the same as when the factory opened.

Market/Competitors

- The client had 100% of the market until two years ago. Since that time, a localized upstart company has appeared in the Philadelphia / New Jersey market and has captured nearly all of that market. This factory has purchased technology from a German company. Your client does not have much information about this competitor, but it appears that their factory is extremely efficient. They have also been undercutting your client on price.

Solution:

The competitor has used their new technology to produce a lower price product. As evidenced in the Philadelphia / New Jersey market, nearly all customers prefer this product to your client's. Therefore, the future is extremely bleak for your client, and they should be advised to respond to the competitive threat, perhaps by updating their own technology.

Corn Feed Company

A corn feed company has eight manufacturing plants located in the Midwest. These plants service the entire United States. Their plant in Ohio is in need of refurbishing. The company has four possible options:

- Refurbish the existing plant
- Build a larger plant at the current location
- Build a similar size plant at a new location
- Build a larger plant at a new location

Which is the best option for this plant?

Information to be given if asked:

Market

- There are four main competitors; our plant is the second largest. All four competitors have similar manufacturing processes and similar cost structure.

Capacity

- Capacity utilization at the current Ohio plant is 65%, which is industry standard.

Customers

- The current customers buy from all four manufacturers in order to guarantee supply.
- Currently demand is being met and there are no alternative uses for corn feed.

Transportation Costs

- The transportation cost for the corn stock (raw material) is much higher than the cost of transporting the actual feed.
- The corn is grown in the Ohio area and the feed is sold to the East Coast.

Product

- The raw material is perishable where as the corn feed can be stored for any length of time and easier to transport.

Solution

There are two issues to this decision. The plant size and the plant location should be considered separately.

- Size of Plant- corn feed is a commodity product. Pricing on the product is dependent on current corn prices as opposed to the manufacturing process. The purposed largest plant will not have economies of scales not currently present at the existing plant. Without increased economies of scale, there is no reason to increase the size of the plant.
- Location of Plant- transportation cost and perishability are the main issues with location. Cost analysis of the transportation cost of feed versus raw materials should be completed. This analysis should include the % of spoilage for longer transportation of corn stock.

The current plant is located close to the cornfields and this is the best location for the plant from the cost/benefit analysis. A larger plant should not be built.

Buenos Aires ENT

Medical center in downtown Buenos Aires specialized in Ear, Nose and Throat, working at 90% capacity, in a very competitive environment. They have contracts with all the HMOs & insurance companies and they see almost no private patients.

They are barely making profits, and they want to:

- increase profits
- increase market share

What should they do?

Information to be given if asked:

External Factors

- Stable economical & political situation (1999), no inflation.
- The institute has a good reputation in the community and a market share of 10% (one of the biggest in this market).
- Big competition, by a few institutes (especially one a few blocks from us with the same market share) and numerous ENT doctors in their offices with distribution all over the city (geographical advantage, they are closer to the patients).
- The customers are the population with insurance, they don't pay anything for their visits and they come to us because of our reputation.
- The most difficult thing for physicians in this market is to get the precious contracts with the insurance companies, which we have all.
- No merger possibilities with the other institute, since the owners dislike each other.

Financial

- They could get money to do some improvements like new offices or surgical rooms in the current space, but not to buy a new building (also the owners are very conservative).

Costs

- We cannot reduce costs much without risking their reputation. In fact we suspect they are already eroding it because of recent cutbacks.
- They have a reduced group of staff specialists, some of whom are the owners, who are paid on a fee per service basis and only see selected patients.
- Then there is a larger group of residents with low salaries who do the bulk work (they accept low salaries and long working hours for the benefit of learning from the well-recognized specialists).
- The administrative and nursing staff receives standard pay.
- They expend in surgical and office supplies at market prices.

Revenues

- Revenues are slightly higher than costs.
- Their prices are low (i.e. \$15 for a medical visit). They see about 5,000 external patients per month.
- NOTE: One of the clues to this case is here, in the product mix because their main income is from surgeries. They make \$1,000 on each surgery with a cost of \$500, while they barely make any profit from the office visits. Usually people trying to solve this case just focus in the office visits and they forget about surgical or other practices.

Capacity

- There is some idle operating room capacity and they could easily build bigger facilities with low investment. They are offering our facilities to external doctors and a few of them come to do their surgeries here for a fee. It is very difficult to attract other specialists because they usually are forced by their HMO to perform surgeries in other places, or they prefer a clinic in their neighborhood, etc.

Solution:

- Franchise the name of the institution providing the contracts to groups of young specialists with practice in far-off neighborhoods (especially to former residents from the institute).
- The value proposition to these young MDs is 2 fold:
 - Opportunity to expand the scope of their practice
 - The ENT center would take care of physician billing and other back-office operations.
- Value proposition to the ENT center:
 - The independent physicians would perform all their surgeries in the client facilities. This will improve the capacity utilization of the ENT center. The physicians would receive standard fee they would get anywhere else for their surgeries. Later the client can expand the operating room facilities if needed.

Consulting Firm

You are the managing director of a large international consulting firm. Traditional strengths of your firm have been solving strategy and organizational issues. Recently, you have noticed an increasing number of your firm's proposals are being rejected because of a lack of information technology expertise in your firm. So far, your firm's growth has been strong enough that proposals lost have not hurt annual earnings. Nonetheless, you are becoming increasingly concerned about the need to develop the firm's capabilities in information technology.

Q1: Assuming your concern is valid, what reasons will you provide to other partners about the need to acquire information technology skills?

Q2: Assuming you are able to convince other partners of the importance of IT expertise, what steps would you take to rapidly build IT capacity in this area?

Q3: What are the major risks in executing an IT capacity-expansion?

A1: Good answers focus on the value of IT to clients: discussion topics include the increasing importance of information in business, strategic value of information and information flows, importance of information systems for implementing new organizational structures and management control systems.

Better answers focus on the costs of losing clients to competitors: discussions included the encroachment costs of having clients talking with competitors about IT problems, risk of losing credibility with clients by not being able to solve a problem.

A2: Good answers will focus on various methods to build expertise: buying expertise by acquiring another firm, by raiding IT practices of other firms for a few key consultants, building capacity through recruitment of IT experts and training them to be consultants, building capacity by training current consultants in IT practice skills, establishing a strategic alliance with a IT boutique firm. Candidates should discuss the pros and cons of each method proposed; impact on firm's current culture, cost to the firm, time needed to build expertise, etc.

Better answers will realize the importance of stimulating client demand as capacity builds through seminars, articles strategic studies in IT areas...

A3: Good answers depend on the expansion methods discussed, but an important issue is the loss of the firm's focus away from just strategy and organization.

Better answers will focus on the difficulty of implementation in IT; rapid technological changes in the IT industry require significant ongoing training and development costs; new practice cultures may be significantly different from current culture, especially if "external experts" are brought into the organization.

Concrete Manufacturer

Your client, a concrete manufacturer is considering acquiring a small local firm. What factors should be considered? After considering these factors, would you recommend the acquisition?

Information to be given if asked:

Margins

- The target firm is currently profitable, with margins of 5%.
- Your client's margin is 15%.
- Your client attributes its higher profit margin to economies of scale in trucking and mixing, and a stable labor force.

Market

- Both companies compete in the geographical market, the Southeastern U.S.
- Your client's customers are large construction firms and contractors generally in the office and commercial building construction business.
- The smaller firm sells mainly to other small businesses and contractors. (Swimming pool installation firms, patio builders, etc.)
- Additional research shows that the smaller customers for concrete are growing, while the major office building construction market is stagnant.
- The smaller firm has strong contacts with many local customers, and is often the preferred supplier due to their customer responsiveness.

Financing

- Your client is not able to fund the acquisition internally, but could obtain bank financing at a rate of 10%.
- Similar acquisitions generally are made for two to three times current sales of the target firm.

Solution:

From a financial point of view, the acquisition is not attractive if there are no synergies between the firms. With profit margins of only 5%, the income generated by the smaller firm will not cover the capital charges (interest due to the bank) on the acquisition price. (Acquisition price = 3 x sales. Interest on this amount will be 10% x 3 x sales, or 30% of annual sales. Profits are only 5% of sales. This analysis, of course, ignores the tax shields.)

However, if your client were able to use some of its competitive advantages to improve the financial outlook of the target firm, the acquisition would be advisable. It is reasonable to expect that synergies would arise from economies of scale in trucking and mixing, which could raise the profit level of the target firm, and make the acquisition more attractive.

Healthcare Company Growth

A large health care company has decided it is interested in substantially increasing the size of its operations. Its goal is to double total sales and profits in less than two years. As a consultant brought in to assist them, what would you do? What issues would you consider? What are some likely alternatives for the company?

Possible issues to consider:

- What is the current scope of operations? In what areas of health care does the company deal? What is its current market share in these areas?
- What plans has the company already considered?
- What is the competitive nature of the industry? What would be the effect on sales and profits of reducing prices and margins?
- What potential is there for expansion by acquisition? Do they have the financial capability? do potential acquisition targets exist? Will the market for acquisitions be competitive?

Possible recommendations:

Naturally, a suitable solution will depend upon the answers to the above questions.

- A business can increase profits by:
 - Increasing sales
 - Increasing prices
 - Decreasing costs
- However, if the company's margins are found to be consistent with industry norms, it would seem unlikely that either increasing prices or cutting costs represent feasible methods by which to double sales & profits, particularly if the company is operating in a moderately competitive environment.
- This leaves only sales increases, which could be achieved by:
 - Selling more of the current products to current customers
 - Selling new products to current customers
 - Selling current products to new customers
 - Selling new products to new customers
- The suitability of these options will again depend on the particular environment. In the particular example of this case, it turned out that only selling new products to new customers via some form of diversification could hope to achieve the company goals.
- You should then consider the potential for increasing sales by means of diversification through acquisition or joint venture. The relative benefits of each will depend on financial resources as well as the existence of, and competition for suitable targets.

Gas Manufacturer (McKinsey)

Your client is a gas manufacturer. Currently the client owns and operates its gas plants nationwide. They have hired McKinsey to investigate whether they should enter into the business of running 3rd party gas plants. How will you structure the analysis of this case? Should the client enter or not enter into this business?

Information to be given if asked:

- Customer Information
 - The client manufactures hydrogen, oxygen etc.
 - The customers are other industrial goods companies which use gas for producing steel, waste treatment etc.
 - Some of the steel mills and waste treatment agencies own their own gas plants. For instance, a steel mill can have its own gas plant, which is located right next to the steel mill. These are the gas plants that the client wants to operate (not buy them, just provide operations service!!)
 - The client has highest market share in the market (about 30%).
 - The market grows pretty much along with the GDP (1-3%).
 - The cost of the gas for the customers is a small % of their total direct production costs. It is extremely important for the customers to have an uninterrupted supply of gas, since their steel plant shutdown is extremely expensive for them.
- Firm's current economics
 - The product is a commodity, so the firm is a price taker. The firm's revenues grow with GDP.
 - Client's cost structure is the lowest in the industry.
 - Think about how the gas plant's cost structure will change if the client operates it:
 - Direct Material (DM) – raw material is air, which is free
 - Direct Labor (DL) – very lean operation. One gas plant can be run by 1-2 persons. There will be no change.
 - SG&A – Some reduction due to client's scale
 - O/H – Some reduction by centralized monitoring and repair crew. Possible due to client's large scale of operations.
- Client's resources/capabilities
 - They have perfected the technique of monitoring the gas plants (using remote monitoring) and have the minimum average plant downtime/breakdown in the industry.
 - By being the largest producer of gas, the client has achieved the highest economies of scale.
- Competitive landscape and current issues
 - There are 3 other national firms that manufacture and provide gas. Their market shares are smaller than that of our client.

The client can create value by operating 3rd party gas plants by lowering the operational cost somewhat. More importantly by minimizing the downtime of the gas plants they can add more significant value. Therefore, based on the value proposition, the client should enter into this

business. The client then needs to consider barriers to entry for other firms and implementation strategy.

- Barriers to Entry
 - The client's capabilities are unique in the industry. They can sign exclusive long term contracts with 3rd party clients to operate the gas plants.
 - The client also needs to consider their pricing very carefully.
- Implementation
 - Evaluate the capital investment of this market entry.
 - Since the client's infrastructure is well established, the capital cost will be minimal.
 - The client could offer to operate 3rd party gas plants which are located reasonably close to their own plants. This would allow the client to go up the learning curve while ensuring uninterrupted gas supply to the customers.

Summary

The client should enter this market since there is value to be captured and the capital investment is low.

Vitamin Manufacturer's Entry into China (McKinsey)

Your client is a chicken vitamin manufacturer. The vitamin helps increase the size of chicken breast and reduce fat content. Should they enter China?

Information to be given if asked:

- Chicken Industry in China
 - Chinese chicken industry is twice as large as US in terms of amount of chicken consumed.
 - Growth trends are similar to those of US.
- Customers
 - The customers in US consist primarily of large corporate farmers e.g. Tyson, Purdue.
 - The customers in China can be segmented into 3 categories:
- Customer Segment

	Current Market Size	Growth (last 5 years)
Family poultry farms	80%	1%
Village farms	10%	19%
Corporate farms	10%	80%

- Competition
 - There is no direct competitor at the moment in China. There is one substitute product which sells for 47cents/lb.
 - The client’s product is superior in performance and has no side effects compared to the substitute product.
- Firms Resources
 - Magnesium is an important ingredient used to manufacture the vitamins.
 - The firm has one mine in Florida which is operating at max capacity.
 - There are mines in other parts of the world, which have a cost structure as follows (includes transportation of raw material to China):
 - 2 in Europe- 39cents/lb
 - 1 in Africa – 35cents/lb
 - 1 in India – 37cents/lb
 - 1 in China – 38cents/lb
 - NOTE: These are prices if the client were to acquire the mines.

Solution:

Draw a basic Value Chain for the vitamin manufacturing/distribution process.

Raw Material → Manufacture vitamin → Sales and Marketing → Distribution

The cost of raw material is given above for different mines. The additional cost beyond the raw material is 10cents/lb.

Which mine will you choose? The one in Africa.

Now that the cost structure is established, the client should perform an NPV analysis based on certain project sales volume.

The NPV analysis was positive.

The client should enter China for the following reasons:

- The corporate market is growing rapidly (80% growth in 5 years). The corporate farms are more likely to use vitamins than the small family farms.
- The client should acquire the mine in Africa.
- There is no significant competition. The client's cost (45cents/lb) is less than that of the substitute product (47cents/lb).

Cigar Bar

I was sitting in one of Chicago's new specialty "Cigar Bars" around the end of August with a friend. It was a Saturday night and the weather was fair. While enjoying one of the bar's finest stogies and sipping a cognac, I asked my friend how much he thought the bar was worth. How would you go about determining the value of this bar?

Information to be given if asked:

- Customers
 - We arrived at the bar around 8:30pm. There appeared to be 30 customers already there. By 11pm the place had at least 70 customers. I would estimate the maximum capacity to be close to 100.
- Products
 - The bar sells two things: liquor and cigars.
- Price
 - The average cost of a cigar is \$8 and the average cost of a drink is \$7.
- Employees
 - There was one bar tender, a waiter and a waitress. All three were there the entire evening.
- Miscellaneous
 - The bar is located on one of Chicago's trendier streets with a lot of foot traffic.
 - The bar is open Tuesday thru Sunday from 5 pm until 2 am.

Possible Solution:

This is a straightforward valuation. To perform a valuation you must estimate the cash flows from the business and discount them back using an appropriate weighted average cost of capital (WACC).

- Revenues: One way to project revenues is to estimate the number of customers per day or per week and multiply that by the average expenditure of each customer. Keep in mind that Friday's and Saturday's are typically busier than other days and that people tend to be out more during the summer than in the winter.
- Costs: There are two components to costs: fixed costs and variable costs. Under fixed costs you might consider: rent, general maintenance, management, insurance, liquor license, and possibly employees. The only real variable cost is the cost of goods sold.
- Valuation: Subtract the costs from the revenues and adjust for taxes. You now have the annual cash flows generated from the bar. How long do you anticipate this bar being around? Cigar bars are a trend. In any case pick some number for the expected life (4-5 years). The discount rate should be a rate representative of WACC's of similar businesses with the same risk. Perhaps 20%. This gives you a value of: $CF_1/1.2 + CF_2/(1.2)^2 + \dots + C_f/(1.2)^n$

New Magazine

Your client is the CEO of a publishing company that produces a line of educational magazines as well as a line of women's magazines. Both businesses are profitable but are not growing quickly. He wants to start a third monthly magazine in the US targeted at 30-50 year old men (eg. GQ Magazine). His stated goal is to generate circulation revenues of \$10 million in the first year. He has hired you to figure out whether this is possible.

Possible Solution:

This is an estimation case. The key here is to clearly define your assumptions, the specific answer is not important as long as you are making reasonable assumptions. For example

- Target Customers
 - The total US population is approximately 240 million. Based on a normal distribution with the average life span of 80 years, approximately 2/3 of the population falls between 30-50 or about 160 million people. Approximately 1/2 are male or 80 million.
 - Of the 80 million 30-50 year old men in the country, assume that at least 1/2 would read a magazine or 40 million.
 - Given the wide range of magazines on the market assume that only 10% of magazine readers would want to read a men's journal or 4 million target customers.
- Share
 - As a new magazine assume that you can generate a 5% share of the men's magazine market in year one or 240,000 customers.
- Revenues
 - Based on what other magazines sell for (\$2.50-\$5.00) assume a cover price. Lets say \$3/magazine at the newsstand and \$2/magazine for a subscription. Now make some assumptions on how many customers will buy on the newsstand versus subscription, lets say 50% subscribe (120,000) and 50% buy at the news stand (120,000). This comes out to \$360,000 + \$240,000 or \$600,000. Finally, this is a monthly magazine. For simplicity assume that all target customers buy a magazine every month. This would generate total revenues of \$600,000 X 12 or \$7.2 million.

In this case given the CEO's stated goal of \$10 million in circulation revenues, it would not make sense to launch the magazine.

Piano Tuners

How many piano tuners are there in Chicago?

Approach

This is a brainteaser case. Its purpose is to test your logical and quick mathematical thinking. There is no right answer; the test is to see if you can come up with an answer based on the information you estimate.

You need to start by asking questions about the key factors. One way to solve it is to estimate the number of households in the Chicagoland area. The interviewer gave this piece of information at 2,000,000 households. Next, you can break the income of the households into four quarters (500,000 each). Make an estimate of 20% of highest income quarter have pianos, 10% of second quarter. 5% of third, and 0% of fourth.

Thus:

Income quarter	Population	% w/ Pianos	# of Pianos
1st	500,000	20%	100,000
2nd	500,000	10%	50,000
3rd	500,000	5%	25,000
4th	500,000	0%	0

With 175,000 pianos to tune you can estimate how often these pianos are tuned. You can estimate top income quarter tunes their pianos once a year, second quarter once every three years, third quarter once every 10 years. This gives you

$(100,000 + 50,000/3 + 25,000/10) = 119,167$ or approximately 120,000.

Estimate a piano tuner can do four a day, 250 days a year, therefore: $120000/250=480$ pianos a day to tune $480/4 = 120$ pianos tuners needed.

How could you check this? Look in the yellow pages. Would all the piano tuners be in there? You can guess half. By the way there are 46 piano tuners listed in the Chicago Yellow pages.

Chicago Loop (Booz Allen Hamilton)

How would you go about estimating the daily average number of motor vehicles in the Chicago Loop?

Solution:

Author's Comments: Since I was not sure whether the interviewer wanted me to actually calculate my best estimate or just brainstorm creative ways to do the calculation, I decided to ask him beforehand. He offered me the following tradeoff: I could choose between going through the calculation or outlying alternative ways to arrive at an estimate. However, by choosing the latter, I had to come up with at least three different procedures (and that's exactly what I decided to do).

- 1st Approach: Secondary research. Contact the transit authority and see if the measurement has already been performed before. Similarly, downtown areas of cities of equivalent size could also have done some previous studies on the topic.
- 2nd Approach: Define the limits of the Loop and treat it as a system in which the units processed are motor vehicles. By measuring the rate in which cars get into and leave the system during the day, we could arrive at an estimate of the average "inventory" built into the system throughout the day. A sample of streets could be monitored (probably the most generally used) and the results could be extrapolated to the whole area.
- 3rd Approach: Use a phone directory to estimate the number of offices in the Loop. From there, estimate the number of people commuting to work everyday, and then the number of cars (discount people that car-pool or that use public transportation). This number will be a percentage of the total number of vehicles in the area, since we have to take into account the vehicles that are just driving through the Loop and heading somewhere else.
- 4th Approach: Measure the quality of the air in the Loop in terms of the concentration of gases (from fuel combustion) throughout the day and contrast it with the expected average contribution per vehicle.

Each suggestion was complemented with a discussion on pros and cons, regarding accuracy, costs, feasibility, time and resources needed.

Chewing Gum Market

How would you estimate the size of the annual U.S. chewing gum market? Check your answer for reasonableness.

A typical approach:

Estimate the number of people who chew gum: of the 300 million population, 15% are between the ages of 10 and 20, the heaviest users, for a total of 45 million. Estimate that these people chew two packs per week, for annual sales of 4,500 million packs. For the other users over age 20, (70% of the 300 million population, or 210 million) estimate a usage rate of one half pack per week, for a total of 5,250 packs per year. Total packs per year is 9,750.

To check for reasonableness, figure the dollar sales that these packs represent: at 25 cents per pack, annual sales would be \$2.4 billion, a reasonable figure.

Golf Ball Market Entry

You are visiting a client who sells golf balls in the United States. Having had no time to do background research, you sit on the plane wondering what is the annual market size for golf balls in the U.S. and what factors drive demand. Your plane lands in fifteen minutes. How do you go about answering these questions?

Typical solution:

Golf ball sales are driven by end-users. The number of end users: take the population of 300 million; assume that people between 20 and 70 play golf (about $\frac{2}{3}$ of the population, or 200 million) and estimate what proportion of these people ever learn to play golf (guess $\frac{1}{4}$) which reduces the pool to 50 million. Now, estimate the frequency of purchase. If the average golfer plays twenty times per year, and requires two balls per time, that's forty balls per person. Multiply that times the 50 million, resulting in a 2 billion ball market.

Oil Refining Industry

Your company has 25% world-wide market share of the oil industry. It generates \$4M annually in revenues through the machinery division of the company, which supplies machinery to refineries (not owned by your company) around the world. How do you assess the current operating status of this division?

Approach:

Define "assess...operating status" - most likely in comparison two dissimilar pieces of information: 25% market share and \$4M (but no idea what % of the market this represents). The guide is to request what % of the market \$4M represents. Assume this is unknown. An estimate of the market size is therefore needs to be done. The way to do this is to ask how many oil refineries there are, how much does each cost to build, how long they last (actual life, not dependent life) and what the machinery replacement costs are. From this, one can estimate what the industry spends per year on machinery can. Divide the above mentioned \$4M into this and the refining division's market share can be assessed. This % can then be compared to the 25% share of the parent.

Logging Company

You are hired by a Canadian logging company to analyze its current operations and provide advice on future operations. The government regulates the logging industry in Canada. Land is leased to individual companies by the government. The company is making a lot of money and is unsure why. You have been asked to determine: (1) Why they are making money? (2) Is it sustainable? (3) Is it replicable?

Information to be given if asked:

- Products
 - The company produces lumber boards of two sizes 2"x4" and 2"x8".
 - Lumber is a commodity product and the company is a price-taker in the market.
- Costs
 - The government leases tracts of land at an annual price that is set to allow for a 12% profit margin for the entire logging industry. Thus, all tracts of land have the same lease price per acre.
 - The leases last for 99 years and the original lessee has the right of first renewal.
 - The company has a 5% cost advantage in its "tree-to-dock" production process. There is no significant difference between the distribution costs among the industry firms.
- Profit/Revenue
 - The profit equation for the lumber industry can be written as: Profit per ft³ = Revenue per ft³ - Non-land cost per ft³ - Lease Cost per ft³
 - There is a revenue advantage for the company due to its product mix.
 - Margins are higher on 2"x8" boards than on 2"x4" boards.
 - The company's product mix is made up of a greater percentage of 2"x8" boards than the "typical" logging company percentage.
- Production Process
 - The cost advantage is not generated by a better logging process (i.e. better equipment, more skilled laborers) but instead exists because of the exceptional quality of the trees on the particular piece of land that the company leases. The mineral content of the land leads to faster growth of healthier trees, which improves both yield and turnover. Healthier trees are straighter and easier to cut, thus reducing costs in each phase of the logging process. These healthier, taller, straighter trees yield more 2"x8" board feet than is typical and leads to the advantaged product mix. There are no significant economies of scale to the process.

Solution:

- The company leases land with a significantly higher quality of trees. This leads to a revenue advantage because more 2"x8" board feet can be produced per acre of land. Additionally, there is a cost advantage because the higher quality inputs make the logging process easier and increase yields and turnover.
- Since the leases are for 99 years and renewable, the current situation seems sustainable.
- Since it is unlikely that another piece of land similar to this one exists or that another firm will give up advantaged land, the situation is not replicable.

Cure for Common Headaches (BCG)

Your firm just discovered a breakthrough formula for common headaches. What would you do now?

Information to be given if asked:

- You are the CEO of this firm and your firm is a large MNC (multi national corporation).
- The product has passed the first round of in-company testing very successfully. We are highly confident that it will be provide the masses instant relief from almost all types of headaches. This is a unique discovery, and no existing product comes close to it in terms of effectiveness.
- Almost the same answers to all other questions – “Please make a reasonable assumption”
- No tables and no graphs

Solution:

- Test structured thoughts: What is critical – given the limited time, the candidate should first outline a high level picture (set the scope) and then probe the details of each section making reasonable assumptions and displaying their knowledge of frameworks and tools. One example of setting such a high-level outline is to explore:
 - Company’s current status
 - Impact of new discovery
 - Feasibility of product’s market success
 - Next steps for the firm
- Having done something akin to the above the candidate should be able to proceed on the detailed analysis by leveraging some frameworks like Customer/Competitor/Company analysis, Internal/ External elements, SWOT, Cost revenue and profitability etc make necessary assumptions like implications of FDA regulations, patent protection, clinical testing success, competitor response etc

Summary:

Essentially, the candidate needs to provide a structure to the problem, flesh out issues with probing analysis and produce a clear next-steps summary for the firm is the winning solution.

Chemical Sweetener Manufacturer

Your client manufactures a chemical sweetener used in beverages and other food products. The chemical will come off patent in one year. You have been asked to predict what might happen to the profitability of this product when the product comes off patent.

Information to be given if asked:

- Product
 - This is the only product of its kind, in terms of taste and safety (lack of harmful health effects) as proven in lab tests.
 - The brand name of the product has slowly become a common household word.
- Customers
 - The largest two customers (75% of your sales) are two worldwide beverage companies.
 - The companies feature the brand name of your client's chemical on their product, and consider it a sign of quality.
 - The cost of the chemical sweetener represents 1.5% of their total costs.
- Costs
 - The costs to manufacture the product are extremely low (about 20% of the price of the product).
 - Currently, the margins on this chemical are almost 40%.

Solution:

This is a classic customer analysis problem. While most products that come off patent quickly drop in price (e.g. pharmaceuticals), this product will be able to retain some of its premium due to the strong brand name. Because the major two customers feature the chemical name on their product, and because the chemical represents such a small portion of their total costs, they can be expected to be willing to continue to pay the premium into the future.

Therefore, the outlook for the product is good even after the patent expires.

Austria Star Mobile Launch (DiamondCluster)

It's 2:30 a.m. and you are finalizing some last details to launch a new wireless telecommunication service in the smallest market of seven in Austria. For the client, Austria Star Mobile (ASM), it will be their first launch of seven potential launches in Austria and they want it to be a flawless and successful in order to raise capital. Your team has just finalized the pricing strategy and ordered 100,000 pieces of promotional material when you get a call from the CEO of Austria Star. The CEO says he was just at conference in Singapore with the president of the incumbent wireless provider, AT&M, who says that they will beat the price of any new entrant in Austria by 10%. The CEO of Austria Star wants to know how they should respond to this news. What do you do?

Information to be given if asked:

- Current Industry Structure/Market-share
 - AT&M currently controls 100% of the entire Austrian market for mobile and landlines and 30% of the cable television market and operates extremely profitably with all these products.
 - Two other mobile providers will enter the market 6 months after Austria Star.
 - The market is growing at 20% p.a.
- Competitive Information
 - AT&M is known to have thorough coverage of Austria, but is known for busy lines, dropped calls, and haphazard service.
 - AT&M's rates are a flat €10 per month plus €0.40 per minute, or flat €30 per month and €0.20 per minute, flat €60 per month and €0.10 per minute.
 - Your team has spent the last three months developing a highly flexible pricing model. The model suggests that the optimum rates ex ante would be 15% less than AT&M and use the same three-level prices.
 - AT&M's price cut would be for the entire Austria market, not just this region.
- Costs
 - Mobile telecommunications is a high-fixed cost, zero marginal-cost business.
 - The cost structure of all providers is essentially the same (start-up costs, operating costs, licensing, etc). Incumbent providers generally have a customer acquisition costs that are 25% lower than new entrants do (acquisitions cost average €100 in other launch markets outside Austria).
- Products
 - Austria Star will launch with the latest 3G (broadband) technology that transmits data 2x faster than AT&M's network.

Other information

- The managing partner on the account is on vacation and can't be reached for three days. However, you teammates can be reached immediately.
- The CEO of Austria Star is on route to Austria and will arrive at his office at 9:30 a.m.

Solution:

The thing to recognize is that Austria T&M (the incumbent) is signaling that they will defend the market at most any cost (they are dropping rates in the entire country not just this market). This makes price-based competition less appealing and differentiation is more important.

Most importantly, the interviewee should establish a clear program for communicating to the CEO and with her staff.

It is important for the interviewee to address what the CEO must be thinking and keep the CEO comfortable. One suggestion is to keep the CEO busy addressing the issues most important to her, whilst you and your team address the pricing issue. As manager how do you motivate your team to re-examine the pricing issue? What do you communicate to the partner?

Summary (Paraphrase based on elevator test)

This is startling news and affects a lot of people! I think something that we need to do is divide this up so that we can have an outline of a solution and communications plan by the time you arrive. What I would suggest is that I will convene my team right now and work out some alternative pricing strategies and their overall impact. Are there people that you think need to be at the meeting? Who would you like to have make contact with those people?

From Columbia's case-book

Columbia Business School's case book does not name its cases. I have taken the liberty of naming them in the interest of easy reference.

Whine Wine

The client is an U.S.-based wine manufacturing firm looking to expand globally. They have retained us to advise them on the valuation of a South African based wine company that they are looking to acquire. Why don't you walk me through some of the things you would consider in advising the client?

I'd like to evaluate three broad areas – the client's strengths & weaknesses both financially and from a business standpoint, industry growth trends including a competitive assessment in the United States and finally evaluate the target's strengths and weaknesses before actually carrying out the valuation. My objective is to evaluate the vulnerabilities– need for specialized inputs or labor, power of suppliers and buyers, threat of competitive attack, need for customer service, etc. – and variabilities – historical sales growth, profit margins and expected growth trends in the industry – that our client faces. This will be critical in undertaking the actual valuation.

OK, that sounds like a good overview. Why don't you tell me the various steps that you would take in the valuation?

[At this stage, I felt that the interviewer was probing for the mechanics of a valuation.] Well, once we have undertaken the variability and vulnerability assessment, we can identify both a realistic worst case EBIT growth and a target capital structure for the company and carry out a pro forma financial statement projection, for say, five or ten years out. Then, we add back non-cash items, changes in CapEx and working capital and compute free cash flows. Once this is done, we can compute a weighted average cost of capital and discount the free cash and the terminal value, which can be computed with an assumption of stable growth at the end of our projection horizon.

How would you calculate the WACC for the South African target?

I'd first identify the equivalent of the long-term Treasury bond here in the U.S. We can then look at the beta for the target and using a market risk premium of 4% or so to figure out the cost of equity. I'd probably also add a country risk premium for South Africa and a size-based premium based on the market cap of the target.

Interesting. How would you figure out the country risk premium?

Ideally, if there is a dollar-denominated bond available in South Africa, I'd identify a bond of identical maturity here in the U.S. and the spread in yields between the two bonds would be the country risk premium for South Africa.

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

Somehow, I don't like using a country risk premium. It seems very arbitrary. I'm not convinced how or why such a premium is applied. But I agree theoreticians tend to recommend using something like this.

Corrosive Chemical

The client is a division of an industrial chemicals firm. They are in the business of manufacturing fibers and have had sales of \$1 billion. Their concern is that the sales have been declining steadily over the past five years. Their objective is to identify three to five new lines of business with total revenues of \$300-500 million utilizing existing capacity in the fiber manufacturing facilities. They have come up with a new fiber that has very good absorbency, something like 10 times its weight, which is a breakthrough in the industry. The client is looking to enter the urban pet care market in the U.S. with this new high-absorbency fiber. They want to manufacture pet care pads, sort of diapers for pets in urban areas. The client would like us to evaluate the potential of this idea, which is where you come in.

I would explore the following areas and in the process hopefully glean insights to whether or not the pet care diaper sounds like an attractive option for our client. First, I'd like to learn more about the client. Then I'd like to understand the market potential, then assess competitive trends and finally focus on the particular product in question and the client's ability to execute with regard to bringing this product to market.

Sounds good.

Can you tell me more about the client's strengths?

Well, they are an established industrial products manufacturer, their fibers are specifically used in the fashion apparel industry and for the manufacture of cigarette filters. They've had sales in the billion-dollar range, so they are reasonably big.

Do we know how strong their brand is in the customer's mind? How strong are their marketing skills? The reason I ask is to understand whether or not our client is best suited to bring this product to market, if there is demand for it.

Their brand is pretty well known, but not necessarily directly by the end customer. They have not done any marketing in the traditional sense and have no advertising experience at all.

Oh, I see. If they traditionally have not interacted directly with the customer, how does their value chain look like?

Good question. They deal largely with distributors, who in turn sell the products to retailers. The retailers handle the relationship with the end customers.

Great. I'd like to modify my original framework slightly and explore this value chain a little further. How powerful are these intermediaries, and would the client want to continue to use them in bringing the pet sponge to market?

The client prefers to continue using the intermediaries. They are reluctant to try things that they are not necessarily experienced in. The intermediaries know this and consequently the distributors would demand a 50% markup while the retailers would require a 100% markup.

Interesting! Why don't I move to the next area of my original framework, market potential? Do we have any research on the size of this market?

Not really but how would you go about sizing the market?

Well, I'd try to get a sense for the size of the urban pet owner market. Let's assume that of the 100 million households, 40% or 40 million households are urban households. Of these, let's assume that 40% of the households, i.e., 16 million households, own pets. I'm considering only dogs and cats as relevant pets for the product. Let's further assume that each of these households has 1.5 pets. This results in about 24 million urban pets that are potential users of the sponge in question. I don't have a good idea how often these sponges would need to be replaced. I know my niece goes through 4 to 6 diapers per day. This is probably too high.

You're right. Remember these are high absorbency sponges, but its not clear how tolerant pet owners would be to the smell. # Let's assume that they would want to replace the sponge every other day.

OK, that would result in 24 million times about 180 sponges a year or 4.32 billion sponges annually. Wow, that seems like a pretty big number! With a 20% market share, our client should be able to sell – assuming that there is a customer need for it – about 800 million pads annually. Before I figure out the dollar value of this market, let me try to understand if there are any competitive products in the market, how they are priced and if indeed there is a demand for these products.

Well, there is no major national brand out there. Local pet stores tend to sell such pads for about 50 cents per pad. The demand is quite small and sales are restricted to the local stores.

Is our client's proposed product any different from these local brands?

Not really. It has much higher absorbency – that's about it.

Hmmm. I wonder how our client hopes to differentiate this product and market it to the customer. At any rate, let me assess the dollar revenue potential that this product is likely to generate. If the product is priced at the current market levels of 50 cents a sponge, the 100% retailer markup means that the distributor receives 25 cents and the 50% distributor markup would leave the client with only a little over 16 cents per sponge. With an ambitious annual sales estimate of 800 million pads, the revenue potential is about \$128 million.

Is this good enough?

Well, you did mention that the client is looking for 3 to 5 product ideas with \$100 million revenue potential each. This product idea meets this metric, but its not even clear if there is a customer need for the product and I'm not convinced the client has the execution quotient to bring this product to market.

Okay. What else would you want to look at before you can make a final go/no go recommendation?

I'd like to evaluate the costs involved with this product launch. One thing to make sure is to ensure the product makes a profit.

That would be a good thing. Anyway, looks like we are out of time...

Coming out of this interview, I was amazed at how broad the issue was and how many details there were to keep in mind. The interviewer was quite helpful in guiding me along, but it is really easy to get off track. For example, I didn't quite make the \$100 million per idea client requirement till the interviewer asked if my estimate of the revenue potential was good enough. With different assumptions, I could have come up with very different estimates. I guess there is not real right answer, eh?

Pathetic Pharma

The client is a large pharmaceutical firm with a market cap of \$85 billion. They have about 4% market share and are currently enjoying a 34 P/E ratio. The industry average P/E is about 29. Over the next five years they are looking at a healthy growth in their EBIT margins. However, for three years thereafter, the EBIT margin growth is likely to stagnate when three of their blockbusters come off patent. Subsequently, blockbusters currently in the pipeline will hit the market and their EBIT margins are expected to healthy growth levels. The CFO of the firm us to help her figure out if the three-year plateau five years out is an issue she should be worried about and if so what external options she can pursue to fix it?

I had no real idea how to proceed. I didn't have a particularly good idea about the pharma industry. So there was no particular framework that came to mind. I was going for the "groping in the dark" approach!

Interesting. Broadly, I'd like to better understand our client's position in the industry, then explore competitive developments and projected trends and finally explore some possible external options. But let me first try to get a better sense for our client and their strengths particularly financial. Can you offer some details?

Sure. Our client has about \$10 billion in revenues, EBIT runs at about \$3 billion. Gross margins are quite high at 80% and they are totally debt-free.

I see. What has the client typically done when blockbusters have come out of patent? I believe over-the-counter versions are one route.

Quite right. They have taken the OTC approach and probably will with these blockbusters as well. But this is not a financially attractive option. As soon as the drug goes off patent, its price drops to 20% of its pre-OTC price. Margins are consequently totally squeezed. Anyway, is this EBIT margin plateau an issue?

Oh, I most certainly believe so. You indicated that the client enjoys an above average P/E. So clearly they are doing something right. I'd expect that the market is also aware of this projected trend in EBIT margins and the price of the stock probably reflects an expectation that management will do something about the trend. I would therefore strongly caution against doing nothing.

So what would you recommend?

You mentioned external options. Can you clarify what that means? Mergers, acquisitions, and so forth?

Yes.

I see. Can you tell me more about the industry? Is there any consolidation happening? Are there potential merger or acquisition candidates that the client has in mind?

Well, consolidation is something that is always happening at different levels. What do you think of a merger of equals?

I'd say this is something we can explore if in fact there are similar trends in the industry and there is a threat of us being left behind or "overpowered." If not, then there is the anticompetitive aspect to worry about. Also I'd be concerned about post-merger integration issues. Does the client have experience with mergers and managing post-merger issues?

Let's assume that they don't. What types of things would advise the client to look out for?

There are a few things they should absolutely ensure they do. First, they have make sure that any target will offer operational efficiencies that can be exploited. Then, they have to ensure that they retain and reward management talent appropriately. This talent will be key from an execution perspective and if the client wants to extract all the efficiencies of the merger, retention of management is key. Rewarding management and key officers and tying incentives to performance is therefore critical. Finally, there has to be a very clear vision articulated and tangible, measurable goals established. This is also critical.

That's good. What other external options come to mind?

I'm not very familiar with the pharmaceutical industry and am not sure if there is something unique to this industry. There is nothing in particular that jumps out in my mind.

Are you familiar with the software industry?

Yes, sort of.

Are you aware of the notion of licensing?

Oh yes!

Licensing is something that is fairly common the pharma industry. The client can take advantage of their marketing prowess and brand image in the market to license potential blockbusters that much smaller firms or firms without their clout are currently developing and that will hit the market during the three years in question. This way they can generate sales to grow their EBIT margins. Got it.

Leaving this interview, I felt as though I had blown the interview for not having come up with the licensing option. In retrospect I probably did a reasonable job. My biggest take-away is that I should have sought clarity on what the interviewer meant by "external options." He wasn't particularly forthcoming with information throughout the interview and preferred to let me talk and think out loud. I should have pressed him for a laundry list of what would constitute "external options." I think it's perfectly alright to ask such a question and then analyze the relative merits and demerits of each option before making a recommendation.

Boring Bank

The client is a regional retail bank. Recently, it has begun facing threats from Internet-based financial services firms and other non-traditional firms. Deposits are declining and the bank has approached us with a strategy to grow the bottom line. Walk me through some of the issues that you consider and work streams you would set up in coming up with some recommendations.

I'd like to structure the analysis along three broad areas, which would also form the work streams. I would like to better understand the client's strengths, particularly their brand equity, customer reach and their history. Then I'd like to evaluate competitive trends, products and services offered and the value proposition that these competitive firms offer. Finally, I'd like to design the capabilities that the client will have to establish in order to grow their bottom line.

OK. Where would you like to start?

Could you tell me more about our client, particularly about their customers, brand and history?

Sure. The client is a well-established bank based in New England. They have about 3 million customers and an acquisitions strategy that has been reasonably successful. They offer a slew of products including deposits/savings accounts, small investments, credit cards and mortgages. However, they have been laggards in eBanking.

Do we know how their customers perceive their brand?

Well, they are a reputed and established firm. They are known for trust and security. They have chosen to remain a regional bank and consequently customers are quite loyal.

I see. I'm particularly intrigued by the fact that they are laggards in eBanking, which segues nicely into the next area I'd like to explore – competition. Can you tell me more about the competitive threats they are facing?

Competition has intensified both from traditional firms, particularly other regional banks and also from new, non-traditional firms. As you've probably guessed, Internet-based firms are able to offer a better perceived value proposition to customers and the client feels that there is a strong threat of losing loyal customers.

I think I have a good feel for the client's competencies as well as the emerging competitive threats. Do we know if the client is looking for new product ideas?

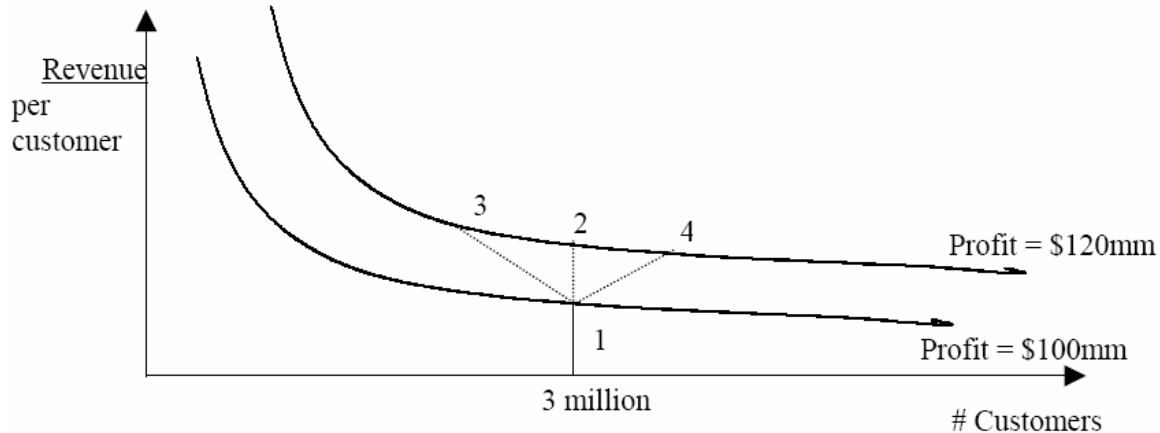
Well, that would surely be one area to explore. It's not clear if that is the primary focus of the client. How would you help the client identify how to prioritize the various options?

I'm sure this is not totally comprehensive, but I'd identify the major product lines the client offers customers. For sake of argument, let's look at three products/services – banking products like savings accounts, brokerage services and say, retirement accounts. For each of these products/services, I'd then identify the different channels available – branches, the Internet, etc.

For each of these channels, I'd undertake an analysis of value versus convenience. This would help segment the various products/services that the client can offer into various levels of service quality and value proposition.

That's interesting. What next?

With an approach I just described, I'd like to move to the final area that I wanted to discuss – capabilities. If we rank-ordered the client's customers by revenue they contribute and plot a chart of revenue per customer and the number of customers, the chart would probably look something like this. I'm not entirely sure if the curvature is exactly as shown. Let's assume this is illustrative for purposes of discussion.



If the client currently makes \$100 million in profit, with 3 million customers, they are at point 1 on this chart. Their objective is to move to points 2, 3 or 4 at a higher level of profit, say \$120 million. Now, point 2 represents increasing the revenue per customer without bringing in more customers. We can think of this strategy as increasing the number of relationships or products/services that the client has with its existing customer base – a customer loyalty enhancing strategy. Point 3 represents an attritive strategy – eliminate unprofitable customers from its base so that the number of customers goes down, while revenue per customer goes up. This is a cherry-picking strategy. Point 4 represents an acquisitive strategy where the client increases its customer base while simultaneously increasing the relationships or products/services with its customers. Each of these strategies will result in the bottom line increasing, but the choice of the strategy will be based on the clients core competencies and the competitive assessment we have undertaken, along with a consideration of how the industry is likely to evolve in the future.

This is great. So if you were in a meeting with the bank's CEO, what would your recommended course of action be?

Based on our discussion, my preference is to recommend the strategy that leads to point 4 – grow the customer base as well as deepen the relationships with the customers to enhance loyalty. This will probably be most successful in the long run. I must admit that this recommendation is based on our 20-minute discussion and wonder if there are other areas I haven't explored.

Partial President

I'm sure you know that the campaign for the Presidential elections is currently underway. Both Bush and Gore have proposed instituting a change to the retirement benefits policy for all employees whereby every employee makes a contribution ranging from \$500 to \$2000, depending on who wins, to a retirement account and the savings grows tax free till the employee retires. We have been approached by a client that runs a large mutual fund to help answer two questions they have: Is this a big opportunity? What are the various possibilities and challenges they would face?

I'd like to explore three broad areas in helping answer the first question – the dynamics of the mutual fund industry, incremental savings entering the mutual fund market and finally regulatory or exogenous factors affecting the mutual fund industry as a result of changes to existing policy. First, can you tell me more about the size and dynamics of the mutual fund industry?

Sure. As you may be familiar, mutual fund companies solicit investments from individuals, retirement accounts of various firms, etc. They then invest these monies to create and manage a well-diversified portfolio for a management fee. From the investors' perspective, the creation of such a portfolio minimizes the risk.

Got it. How big is this industry?

There are, of course, a large number of players. The total assets under management itself could run in the trillions of dollars, so this is a very large industry.

Do we have a sense for how much new money enters the industry? I ask since this will directly help determine if the proposed policy change will be a big opportunity for the industry or not.

I see what you mean. Based on our internal studies and analysis, last year about \$170 billion was new money or additions to assets under management in the mutual fund industry.

OK, let me now move to sizing the incremental savings that is likely to enter the investment pool of dollars. I'm going to make some assumptions, please stop me if any of them are outrageous or unrealistic. My objective is to size the employed population of the United States. Let's assume that individuals between the ages of 20 and 60 are eligible to be employed. If the life expectancy in the U.S. is, say, 80, and if the population is uniformly distributed by age. I know this is a big assumption, but for sake of this discussion, let's make it noting that in a real-life engagement, we should be able to get a fairly accurate estimate of individuals in this age range from any number of databases.

OK, that sounds fine for now.

So, about half the US population, or about 125 million, is eligible to be employed. I'm going to assume that the labor force, that is people that are actually employed is about 80% of this number. We are basically excluding homemakers, students, etc. who would be in the 20 to 60age range.

So we are looking at a labor force of 100 million. Figuring that the unemployment rate in the U.S. is running at about 5%, the actual number of people employed is about 95 million.

Why don't we just ignore the unemployment rate for now and assume a round number of 100 million?

Oh, this would make life easy. You indicated a range of \$500 to \$2000 for retirement account contributions. Would these be recurring annual contributions?

Yes. Let's also assume that, since we don't know who's going to win, the contribution would be \$1000 on average.

Great. So the increase to the investable assets would be \$100 million times \$1000, or \$100 billion. Wow, that sounds like a substantial increase, given that last year the new addition to assets under management was \$170 billion! Are there any other regulatory issues or exogenous factors that would govern or restrict how these assets can be invested?

There are some stipulations, but let's not worry too much about them for now.

Excellent, in that case, our response to the first question would surely be that this is a substantial opportunity for our client in aggregate.

I'd probably agree that this is a substantial opportunity in aggregate. But how would you go about determining if is this a profitable opportunity?

I think I see where you are going. You mentioned our client charges some sort of management fee for services rendered. How much is this fee and what types of expenses does the client incur?

Good question. The client charges a 1% management fee on assets under management.

Simplistically, let's assume that administrative expenses on these assets like mailing statements, etc. is about \$10 annually, while other operating expenses add up to about 10 basis points.

Interesting. On every \$1000 invested then, we make \$10 in revenues but have \$10 plus \$1 or \$11 in expenses. That doesn't look profitable.

No, it does not, does it? Would you still think that this still a substantial opportunity?

Well, it doesn't seem that way. Hmm...Let me take a couple of seconds to think through this.

Sure.

Ah, I think I see what may be happening. What happens in the second year when the assets grow based on the return earned? If we assume the \$1000 grows to, say \$1200, our revenues now look like \$12 but expenses are only \$11.20. We begin to make a profit. If we know how long a customer keeps the investment, we can present value the cash flows to figure out a lifetime

customer value to the client. Then there's the new \$1000 that the customer would invest the second year. So it does appear to be profitable, though I'm not sure how it compares to profits currently.

Bingo! It is a profitable business. Right now, the size of each customer's account is pretty substantial. It tends to run on the order of tens of thousands, so that the profit margin is much more attractive. We seem to be running out of time. Can you quickly summarize for me what opportunities and challenges the client faces, given our analysis so far?

Sure. There are a number of opportunities and along with it. Among the opportunities, the first is cross selling the mutual fund opportunity to customers of the brokerage and other services. This would result in enhancing customer loyalty and also increase switching costs, leading to higher customer retention. Second, emphasizing convenience, sort of the one-stop shop for financial services idea, can enhance the client's value proposition to their customers. On the challenges front, the most critical is probably competition. If indeed \$100 billion additional funds are likely to be invested, every financial services firm is going to want a slice of the pie, which only underscores the need to cross sell and increase customer loyalty. This is something the client is going to have deal with.

Great. Let's assume that you are riding down an elevator with the CEO of the client. And he wants to know what we think.

I'd draw him a 2 by 2 matrix, with industry revenue potential on one axis and attractiveness of this opportunity to the client on the other.

Attractiveness to Client	High		X
	Low		X
		Low	High

Industry revenue potential

I'd argue that the opportunity has a lot of potential for the entire industry. However, the attractiveness to the client needs further analysis. There are a number of interesting opportunities that this policy change presents, but also a few challenges that the client will have to overcome in order to reap the full benefits.

A matrix is always a good thing to draw; you already sound like a consultant!

Loser Liquor

A liquor manufacturer that is 100 years old. Started with whisky. Now whisky accounts for less than 5% of sales. Multibillion dollar company. Overall sales of whisky up 1% per year over last 20 years. Client's sales have tracked that. Last year, however, overall sales up 2%, while client's whisky sales down 15%. Why? What should they do?

Did company do anything differently last year than it did in the previous 20 years?

Price has not changed. But, 5 guys, master blenders, implemented a new formula that reduces cost per bottle \$0.25. There were no changes to packaging and no testing of new formula, but they assured management that there was no noticeable impact on taste. However, 20% of one customer segment, the "loyals," that constitutes 5% of all customers but 45% of sales, have noticed the change and are "extremely angry."

$.20 \times .45 = .09$ So, if angry loyals have stopped purchasing our whisky, sales will have decreased by 9% (since price has remained constant). But, before we can say that this was a harmful move for the company, we must look at the bottom line, profits.

Okay, the current contribution margin per bottle is \$4.

So, the margin before must have been \$3.75, all other things equal.

Before: $100 \times \$3.75 = \375

After: $91 \times \$4 = \364

Therefore, the change in the formula has not only hurt sales, but also hurt profits. But, the remaining 6% drop remains unaccounted for. Do we know if the market for whisky has changed in the last year? For example, I know that with the rise of cigar bars that whisky has become more hip recently. Is our client's whisky targeted to this customer segment?

Actually, it is not. The whisky market is divided into high end, middle segment, and low end whiskies. Our client competes in the middle segment. It turns out that at these whisky bars, people will buy high end whisky to drink straight, but are satisfied with low end whisky for mixed drinks. Last year sales in the high end and low end whisky segments grew, but sales in the middle segment declined. What does this table with market information tell you?

Well, it looks like sales in the middle segment, where our client competes, declined by 4%. I am puzzled, though, 2% of decrease remains unaccounted for, assuming our market share has not declined. In terms of the competition, have they done anything that might have resulted in our loss of market share?

Maybe, what could they have done?

They could have launched a new advertising campaign? No. They could have increased their penetration in retail distribution? No. Hmm... they could have lowered their price?

Bingo. In fact, our client's competitor lowered their price from \$12 a bottle to \$11 a bottle. If I told you that our client only had one competitor in the middle segment, taking a look at the table again, can you tell me how much their market share increased in percentage terms? Assume that our client had 50% and their competitor had 50% of the middle segment before last year.

Okay. Well, let's assume that the total market 2 years ago was 100. We had 50 and they had 50. Last year, our sales decreased by 15% and the overall market decreased by 4% in size:

$$.15 \times 50 = 7.5 \text{ decrease in our sales to } 42.5$$

$$.04 \times 100 = 4 \text{ decrease in market sales to } 96$$

$$96 - 42.5 = 53.5 \text{ current sales for our competitor}$$

So, they increased their sales by 7% in absolute terms. Their market share increased by 5.7% to 55.7%. Our client's market share dropped by 5.7% to 44.3%.

So what should the client do?

The first thing they should do is change the formula back to appease the angry loyals.

How do let these people know that they have returned to the old formula? Remember, there was never any change in packaging, so this is not like Old Coke vs. New Coke.

Well, you should do targeted marketing to these loyals to let them know. This might be difficult, but will be necessary in order to move the whisky upmarket, which is my next recommendation. Also, if the company wants to make their whisky a more premium product, they should not answer the price cut of its competitor with one of their own. Moreover, cutting price to regain market share would reduce profits even further:

$$\text{Now: } 42.5 \times 4 = 170$$

$$\text{After: } (42.5 + (.02 \times 50)) \times 3 = 130.5$$

This is intuitive: we would be cutting out margin by 25% to achieve an approximately 2% increase in sales! The key for our client going forward, then, is better marketing, which makes the brand relevant in a changing market.

This case highlights that multiple things can happen at once to create problems for a company. When doing calculations, you can assume 100 to aid when looking at the effect of percentage changes in market share or quantity sold.

Sinking Ships

A client's company operates 1 passenger and 2 cargo ships in the Baltic sea, between Finland and Germany. The ships are old and need to be replaced. The choices before him are to continue with the same configuration, 1 passenger and 2 cargo ships, or to go in for 2 hybrid ships, which can handle both cargo and passengers.

First, I enquired about the current operating environment. Then I examined the costs and benefits of each option and also checked for potential showstoppers for operating the new hybrid ships.

The current market for shipping:

- The market's lucrative. There's not much competition.
- Passengers – Profits \$1000 per person per round trip on average. Use the ships for recreation; people stay inside since it is in the Baltic after all. The cruise leaves every other evening at 6 PM and arrives at the other port at 6 AM, and heads back to the homeport at 6PM, again getting back at 6 AM.
- Cargo – Profits \$2000 per trailer unit for a round trip on average. The cargo ships leave daily, one from each port, at 6AM and reach at 6PM.

How would the hybrid ships operate?

The hybrid ships would leave daily, one from each port, at 6 PM and reach at 6AM.

At this point I asked about showstoppers: change in cargo loading time, passenger experience due to the presence of cargo, etc.

There would be no problems in changing the cargo loading time from 6 AM to 6 PM for the hybrid configuration. The cargo would be in the hold, and won't harm the passengers' experience, which is mostly indoors anyway, since the Baltic is a cold, cold place and no one wants to stay outdoors.

Capacities?

The passenger ship has a capacity of 1000 people, though occupancy is 600. The cargo ship has a capacity of 120 trailer units, with utilization of 100.

Growth potential?

The market's mature.

Costs for buying /building, and operating the ships?

The operating costs are the same. The hybrid ships cost \$250 million each to build, the passenger ship costs \$200 million, and the cargo ship costs \$100 million each.

I asked for a few minutes to check the numbers.

You need some more information (heart sinking). The capacities for the new ship are as follows:

- 800 passengers, with occupancy of 500, and 100 trailer units, with utilization of 90 units.

At this point I ran the numbers. I considered the profits in each case over a 2-day period. In the old situation, there would be one round trip for passengers and 2 round trips for cargo, giving total profits of \$1 million. In the new situation, there would be 2 round trips for passengers and 2 round trips for cargo, for a total profit of \$1.36 million. Thus, in the new situation results in ~\$65 million extra profits annually. Given that the extra cost for the new configuration is \$100 million, the client can easily recover his extra investment and increase the ROI.

Good. That's what we told our client and he made lots of money!

Other points covered: In the new situation the passenger cruise operation is more dependent on traffic from both ports. In the old situation it could depend on traffic from just one port. So if the economy in one country goes down, then the new operation is less profitable. However, given that the ships operate between Germany and Finland, and not with the ex-USSR states, the chances of an economy imploding are small. Given that the actual problem was easy, I think the additional comments about dependence on economy and other such "soft" analysis helps. Feedback was that I cracked the case.....

Problematic Publishing

A publishing company has 2 divisions, one that prints SEC disclosures and the other that prints mutual funds' prospectus. In the first division, the shareholder communications are printed and sent to all the shareholders. It entered the mutual fund prospectus business 10 years back, and this has helped with revenue growth. It had revenue growth of 25% over 5 years and then 15% over the next 5 years. The CEO wants to know why the rate of growth has slowed and what he can do about it.

Could you give me some more information about the client's business? Does it produce content, maintain a distribution list, solicit firms directly, etc.?

The client's services are retained by Investment Banks. When a company needs to access the capital markets or make SEC disclosures, it is required by law to send the information to all its shareholders. The company uses an Investment Bank in order to access the markets, and the bank gives the information to the client, who prints it and hands it to the company, which in turn mails it to the shareholders. So the client does not produce content or maintain its own distribution lists.

Ok, let me start by looking at the revenues. $R = P * Q$. Could you tell me a bit about the pricing in this market.

Prices have been constant.

Prices have been constant... this indicates that the quantity of prospectus printed has declined. However, given the bull market, the overall number of investors has grown, which should have resulted in an increase in the number of prospectus printed. Could you tell me about the client's market share?

The market share has been constant.

Then the other option is that companies are communicating to their shareholders in different ways. Have more firms started using the Internet to communicate with the shareholders, some service like ProxyVote.com?

Actually the case is in 1998, before online shareholder communication was possible. So ignore the effect of the Internet in this case.

Ok, so no Internet effects... but the prices have gone down, which then means that the quantity of shareholder communications must have gone down. However, this doesn't seem reasonable since the number of investors has increased, and the number of stock, bond offerings etc. has also increased. Can you tell me about the quantity of shareholder prospectus booklets printed?

Your reasoning is correct; the number of booklets printed has gone up.

The quantity has increased, the price has remained the same, but revenue growth has decreased this doesn't make sense. Could you show me the revenues for the 2 divisions?

Mutual Funds prospectus: \$100 million in 1988, \$300 million in 1993, \$600 million in 1998.
Shareholder communications: \$500 million in 1988, \$1 billion in 1993, \$1.7 billion in 1998.

Ok, so the decline in revenue growth is due to the shareholder communication division.
Hmmm.... Quantities have increased and prices have stayed constant..... How does the client charge customers?

The client charges them on a per page basis.

A per page basis! This means that the number of pages in a prospectus have gone down.

Right.

What could be the reasons behind it? You've mentioned that the client doesn't have any control over the content. Could the customers be reducing the amount to be printed to control costs?

Shareholder communication standards are mandated by the SEC, so the customers have to print what is required by the SEC.

Then it looks like the SEC is the cause of the reduction in number of pages per prospectus.

Yes. In 1993 the SEC mandated the easy English usage rule, which forced companies to reduce all the legal jargon that was difficult to understand. So what options does the client have to raise revenue growth rates?

$R = P * Q$. The options before the client are to raise prices or to raise the quantity printed. It could achieve the latter by gaining market share, increasing the number of pages, or by expanding into other lines of business.

Ok, examine the options for me.

Before I do that I would like to find out a bit more about the competitive landscape. Does the client have any differentiator? What is their competition like?

There are 3-4 firms that offer the printing services. There is not much of a difference between them. Investment banks use one or the other's services for a while and then switch to another one if there is some personality clash. Prices are the same and so is the service.

Ok, based on that information, let's take a look at the option of raising prices. The client's services are required when firms access capital markets, requiring shareholder communication. When firms access the capital markets, they hire Investment Banks, and I would guess that our client's costs are much less than those of Investment Banks. Is this true?

Yes, it is.

Ok, then raising prices is a viable option. But I would like to check for competitive reaction. The Investment banks could choose a competing firm. However, you did mention that price usually doesn't come into the picture, so I feel that raising prices a bit is a viable option. The next one is to gain market share. Is there any way that our client can differentiate itself? Can it build a relationship with some Investment Banks and provide better service?

Not really, there are few options for doing so.

Ok, so that rules out the market share option. What about printing more pages? While the content isn't under the client's control, it could play around with the font size, formatting to increase the number of pages.

No. Everything is mandated by the SEC, including the format.

So that option is ruled out as well. So other than raising prices, the client can increase revenue growth rates by entering other markets, say the market for printing annual reports. It is similar to the mutual funds' prospectus market and can leverage its existing connections with forms, Investment Banks.

Ok. What about entering the publishing of something entirely different, like textbooks?

That's also viable, though I feel that the annual report market might be closer to its competency, give it's mutual funds prospectus printing division.

Good.

Should have been more structured, split up the 2 divisions from the beginning itself.

Horrible Heart

Your client is a major pharmaceutical company, which has been approached with the following business proposition. You have been asked to lay out how you client should evaluate the opportunity: A small hospital in West Virginia has developed a total cardiovascular health program for its outpatient population. The program has been in place 3 years and has been highly successful in improving the cardiovascular health status of the patients as measured by several parameters. The hospital would like to “sell” this program to other hospitals for a fee, but could not undertake such a task on their own. Instead, the W. Virginia hospital would like to license the program to your client, and your client would market it to other hospitals.

Ok. I want to make sure I’m addressing the key issue here—the client wants me to develop a methodology for evaluating this opportunity to license a cardiovascular health program from this hospital and market it. The client doesn’t want me to come up with a final Go/No Go answer.

Correct.

Do you mind if I take a few seconds to think a bit about the problem?

Sure. Go right ahead. We’ll start when you’re ready.

I would present my methodology for evaluating as a series of very basic Yes/No questions. Of course to answer each question we’d have to go into more details, but I’d like to first lay out the broad framework.

OK. I think that’s an excellent way to go about it.

First, does this program actually work and can it be applied with similar success in other hospitals. Second, what is the potential NPV of this opportunity. And third, are there other opportunities available to your client that would create a greater return on their investment. If the answer to any of these key questions is no, then the client should not pursue this opportunity.

Very good. So why don’t we go through each of the questions and what I’d like you to do is to address the key issues you’d consider.

First of all, having had some experience with research on patients with cardiovascular disease, I know that study results are not always straightforward. For instance, I would want to know which parameters were improved—was quality of life improved, was overall survival rate improved? Also, I would be concerned that the results from the study on patients from this one hospital in W. Virginia could not be extrapolated to other patient populations in other settings.

So what would you recommend to the client based on these concerns.

Since the client is a pharmaceutical company, I would guess that they have a fair number of scientists that could look more carefully at this one hospital’s results and decide if the program could be successful if widely marketed.

That's fair. How about the next question, evaluating the NPV.

Well, obviously we'd have to look at the cash flows each year. That's going to require some knowledge about the licensing agreement that would be place with the hospital.

I don't want to get into details regarding the agreements, or even specific numbers for revenue. Let's try to keep this discussion as "high-level" as possible. What would be the major sources of revenue for your client if they pursued this opportunity?

The main source of revenue would be hospitals paying a fee for the rights to use this program, which conceivably could be on a subscription basis, per-patient, one-time... the possibilities are endless.

Also, one thing I didn't consider is that if the program calls for specific types of medications, such as ACE-inhibitors, beta-blockers that the client makes, this might present a major "cross-selling" opportunity and boost market share for specific pharmaceuticals.

On the down side, and perhaps I'm being a bit too cynical about pharmaceutical companies—if the client is more involved with drugs required during coronary by-pass surgery and this program was actually successful and kept people from needing by-pass surgery then the client would, in a sense, be cannibalizing its sales of coronary by-pass drug sales.

That is very cynical, indeed! Your client actually has some ACE-inhibitors on the market that very well could be incorporated into the program.

Again, staying at a very high level, and looking at the costs—the licensing fee paid to the W. Virginia hospital would be a major cost, and again, it could be structured in countless ways. Beyond that, my client would incur costs to market the program to hospitals, so there would be a marketing expense. However, if there is a core competency that Pharmaceuticals have developed over the years it might actually be marketing so this would be right up the client's alley. In fact, if the client already has a strong hospital-based sales force they could very easily be used to sell this program.

Anything else you want to add to the NPV question?

Yes—well two things really.

One, if the client were to get involved with a program like this that promotes health overall, I think it could have a very positive effect on consumer perception. Right now the pharmaceutical industry as a whole has been receiving very poor publicity for a variety of reasons, so any positive publicity for this company would be worth something—it may be difficult to quantify, but I think it would be significant enough to consider.

On the other hand, if the program is promoted and it turns out that patients begin doing much worse (for some reason that was over-looked earlier) in the long-run, there is the possibility of materially damaging the client's reputation as a company that delivers safe health care products. If the complications resulting from this program very serious, the client may have to consider the possibility of law suits and damage payments.

Should we discuss the final major question—What other opportunities does the client have?

Sure. I think this is pretty straight forward. The client may have several other opportunities that it is considering at the moment. Some of these projects might have better returns, carry less risk, and perhaps fit better with the client's core business of selling drugs.

OK. That's fine.

This was one of my smoother interviews. Because I have a background in health care it was very easy to discuss this pharmaceutical case. We went on to talk about the program for another 15 minutes, but not in a "case" format.

Taxing Telephone

Our client is a major provider of long-distance telephone service in the United States. It owns a subsidiary that is a communications satellite company – in the business of launching satellites and then marketing (selling or leasing) the transponders on the satellite to companies or to phone service providers. The subsidiary has proposed a \$400 million expansion involving new satellites, and the client would like to know whether this is a good investment or not. The satellite subsidiary has not been making a return on capital up to the parent company's standards, and the client is not even sure if it should be in this business – they may want to sell it. What do you tell them?

Okay, clearly the first question is whether or not to keep the business – before investing \$400 million, you'd want to know if you were going to keep owning the subsidiary. So the first question I'd have would be to find out how profitable the company is and whether its profitability can be improved. This might include making the investment, but it might not.

Good. Let me tell you about their performance last year. They had \$50 million in revenues, and \$48 million in cost, for a profit before taxes of \$2 million. The parent doesn't think that's a good return.

Where did the revenues come from?

\$40 million was from annual leases for 20 of the firm's 100 transponders; these do not include service charges. \$10 million was from annual service charges on the 80 transponders used by customers outside the parent company, including both the 20 that are being leased out and 60 transponders that were sold before the satellite was launched – something that satellite companies frequently do to raise capital in the expensive development and launch phases of the business. 20 of the company's 100 transponders are used by the parent company (the client) for their phone service, and the subsidiary receives no revenue for that.

Okay, well the first thing that comes to mind is that the subsidiary's revenues should include the value of the services provided for free to the parent company – because the parent will have to pay for them if the subsidiary is sold. So, the parent uses 20 transponders, which apparently have an annual value from leasing of \$40 million. Then there's also the service charge on each transponder, which is \$10 million/80. So that's a total value of \$45 million in annual revenues that the subsidiary is providing the parent. So, in fact, the subsidiary's revenues should be more like \$95 million. What about the subsidiary's costs?

(Note: I made a math error here, and didn't notice it until later. The service charge on each transponder is \$125,000, and for 20 transponders it should have been \$2.5 million, not the \$5 million I said).

The costs include \$28 million for tracking and otherwise operating the satellite, and \$20 million that the parent company is charging the subsidiary each year for 5 years to cover the cost of a satellite that was destroyed upon launch a few years ago.

What? Wasn't it insured?

Satellites are a very risky business – 1 in 7 of all new satellites fail when launched – and thus satellites are frequently insured for far less than their value because insurance is very expensive. In fact, there is a 10% chance of failure over five years for every satellite in operation.

Wow. Okay, but the loss the subsidiary suffered when the satellite failed was a one-time loss that should not affect current income – it's a sunk cost, and should have been taken as a one-time charge rather than a recurring expense. It shouldn't even be considered when judging the subsidiary's profitability. Therefore, the subsidiary had revenues of \$95 million on costs of \$28 million – that's a very profitable subsidiary, and they should definitely keep it!

Good. That's exactly right. Let's jump ahead. Say we tell the client this, and our further analysis says that the \$400 million investment will be as profitable as the subsidiary claims it will be. But the client still doesn't think they should be in this business, and that they think they want to sell. What factors should we consider?

The first thing is that they'd be losing a lot of future revenue, even though they could get much of it in a sale of the subsidiary. However, there are other considerations. For example, the parent uses those 20 transponders – would they be able to get the same service if the subsidiary were separate? Do they need to keep the ability to expand their own satellite use if there are too few satellites to keep up with demand? Would they be able to get as good a price?

Well, assume that the satellite market is fairly commodified, and that they don't need to own a satellite company to protect their usage – they could get transponder leases for the same price from any number of providers with the same quality of service, and there's no shortage expected at all.

Okay, then there's the question of whether it's a good idea to take the risk that a competitor might buy the firm. If the future of telecommunications is moving more towards cellular and satellite-type communications, then maybe they want to keep the subsidiary in case technology makes it important to own one in the future, or to deny that capability to the competition.

Fine. So you tell them all this, and it makes sense. But what if they still say that they want to sell the subsidiary. What could be promoting that?

Hmm. Maybe they need capital for their core business, for the long-distance business, and they don't want to go to the markets. Maybe they just want to pare down the business to focus on their core competency, and they think that both companies can do better as separate entities rather than joined – like AT&T spun off Lucent.

Anything else.

Can't think of anything.

That's good. The reason they still wanted to sell it despite its profitability was really that the long-distance business is a fairly steady business – the returns are small but low-risk. Satellites

are very risky, and the parent company felt that their shareholders were too riskaverse to be comfortable with it. Essentially, they saw that they had a different risk/return profile from their subsidiary, and decided that the two weren't a good match.

(Leaving this interview, I realized how dumb I had been to miss the implications of the high-risk data that he had given me when discussing the subsidiary's finances. The lesson is not to discount anything the interviewer mentions – I latched onto the services the subsidiary provided to the parent, which was good, but did so to the exclusion of the more important risk factor. In fact, I realized that he had given me enough information to calculate the cost of the risk. This only compounded the fact that I had gotten the math wrong earlier. What it proves, though, is that some errors are okay, and that it's tough to judge how interviews go – it turns out that this interviewer recommended that I be hired!)

Daft Drugs

The client is a major pharmaceutical company. It has two new drugs in development, both of which are prescription treatment-type drugs (as opposed to preventative drugs) for osteoporosis, a disease that affects older women. The development period for new drugs is ten years, but the last three years – which involve testing – consume more than half of the cost. Thus, the client wants you to decide whether to test the two drugs, test one of the drugs, or to abandon the drugs altogether.

First, however, I'd like to ask you to think through two problems for me. One is, what is the size of the potential market for osteoporosis, and two, how do you think the markets for preventative drugs and treatment drugs differ?

Okay, to begin with, let's estimate the size of the market for osteoporosis drugs. I'll assume that we're only looking at the United States for the moment, so the population of the U.S. is about 270 million, slightly more than half of which is women. So say there are 135 million women in the U.S. I think osteoporosis begins to be a concern in women over 50, so we need to figure out how many women are over fifty.

Just estimate broadly.

Okay, well, my guess is that about 25% of the population is over 50, so that's about 35 million potential customers – and we should remember that as the population ages, more people will fall into this category, so potential customers will increase. Naturally, for a treatment drug, we would then need to get the rates of incidence (to find out what percentage of women in the correct age group actually develop osteoporosis) and whether that is trending up or down.

That's good, and it leads into the next question. How would the size of the market be different with a preventative drug?

Well, the number of people willing to take a preventative drug would depend on several things. First, the randomness of the disease – I don't know much about osteoporosis, but if there's a clear high-risk group, and few others get the disease, then those people are likely to be customers but people outside the group are not. On the other hand, if the disease is really random in whom it strikes, then more people are at risk, but with a lower risk for each person. Thus, people would make their decisions based on the cost of preventing the disease balanced against the consequences of getting it. So, if there's a treatment available that minimizes the problems associated with getting the disease, then few people will take the prevention. On the other hand, if the disease is not treatable and has severe consequences, many people will want to take preventative measures. Then, it'll come down to very pragmatic factors – is the drug easy to take – I mean, is it a simple pill every morning or is it several pills a day with restrictions on diet, etc? Will it be covered by insurance? Are there side effects? If the side effects are severe, they will cancel out the benefits of preventing the disease!

So tell me what the differences would be in marketing a preventative drug versus a treatment drug, and what factors would affect the sales volumes of each.

(Here I took a minute to sketch down some items in two columns).

Okay, I'd say the first difference is going to be in whom the target for advertising is. Patients already suffering from a disease will go to a doctor, so doctors will be the ones making choices among competing drugs. For a preventative drug, however, the patient will likely have more influence, because even if it's a prescription drug, they may or may not choose to take it, and they may find one drug more convenient than another and thus make a choice (while patients suffering a disease are likely to put up with inconvenience to make themselves feel better).

Okay, how would that change the marketing?

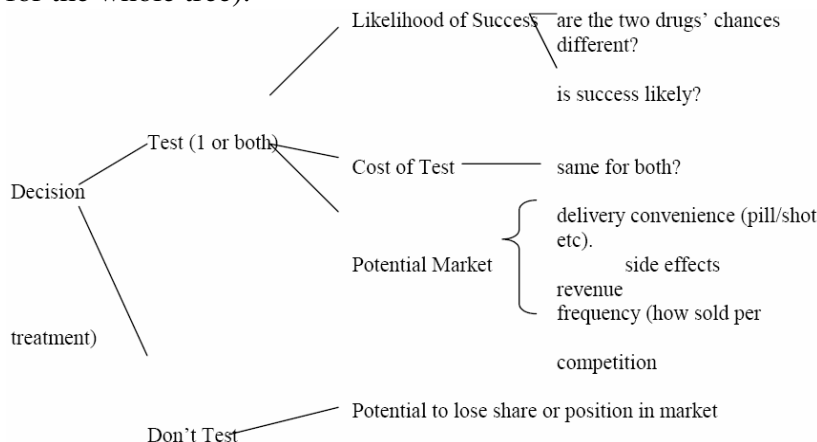
Well, my guess is that doctors will respond most to effectiveness – because they will likely be more scientific and have done more of their own research (even if it's just talking to colleagues) about a drug than patients. So that's the most important thing to stress. Patients, however, will be less attuned to the science behind the medicine, and will also be very conscious of side effects, convenience, etc. So a treatment drug would be mainly advertised in medical publications and similar areas, with a stress on the effectiveness of the medication. A preventative drug, however, would likely be advertised more broadly, targeting the group that might be at risk for the disease, and stressing the awful consequences of getting the disease and how easy and safe it is to take the prevention.

Okay, that's good. Let's talk about the client's problem. Should he spend the money to finish developing the two drugs?

Are they treatment drugs or preventative drugs?

At the moment they're treatment drugs, although they could be preventative drugs in the future. The normal pattern is for drugs to come out as treatments, because longer testing is required to prove value as a preventative. So the drug will be released as a treatment and then the company would continue testing to see if it has value as a preventative. But consider the shorter-term possibilities as a treatment drug.

Okay, first I'd look at the consequences of the two choices – to test or not to test. For the decision to test, I'd want to look at the likelihood of success, to find out whether success was likely in general and whether the two drugs had different chances of being successful. (Etc., etc. for the whole tree).



Okay, those are all important issues. Is there one thing you'd want to find out first?

Yes, I'd want to find out about competition - are we the first company to develop a treatment for osteoporosis? If not, is our treatment significantly different?

That's a crucial question. No. In fact, both drugs we're producing are essentially the same as drugs our competitors already have out on the market?

Are we producing generic drugs that will cost less?

No, we would not compete on price.

Does anything else distinguish our drugs? More effective? Fewer side effects? Anything?

No.

How well have the existing drugs done?

They've done very well. They're the dominant treatments of the disease.

So we're just going to duplicate their drugs to enter the market?

Yes. Our drugs will work in essentially the same way as the existing drugs.

Okay, so to be successful, we'd have to differentiate our product somehow, or maybe our size in the market would allow us to gain share just by entering the market – because of purchasing arrangements, brand name, etc.

No, the competitors are just as big as we are. How would you go about differentiating a product that nearly duplicates an existing product in the market?

Well, one way would be advertising, so that you could potentially make patients ask for our drug over the others. Another way would be on cost, but we don't want to do that. We might have certain distribution channel advantages – contracts with hospitals, insurance companies, drugstores, etc, to exploit to help.

Anything else?

Ummmm. (I think he was looking for a specific additional point, but I couldn't think of anything else. So he let me off the hook).

Well, that is okay. What would your recommendation be?

It doesn't seem like it's worth investing all the money when there doesn't seem to be a clear way to steal share from the existing products. On the other hand, a big provider or drugs may not

want to be left out of a particular market, for fear of losing other markets to a competitor with a full range of products.

That makes sense. What if I told you that we found out while doing our research that a small start-up company on the West Coast was developing a new type of treatment that would essentially make the existing treatment obsolete?

What are its chances of being a technical success? And when would it come out?

We are fairly certain it will work if the firm can get financing to undertake the expensive last three years of development. We even know how the new drug works. They're about to begin that right now – so it'll be at least three years until it reaches market.

Then, first of all, I'd probably cancel testing of the existing drugs immediately even the possibility that the drug will become obsolete adds to the problems of the crowded marketplace and makes it a bad investment. If we're fairly certain that the drug will succeed, it's unlikely they won't be able to find someone to finance the testing.

What would you tell the client to do?

Well, he could do a few things. If there is a chance that the start-up will get delayed in bringing the new drug to market, we could use what we know to develop it ourselves and beat them to market. But they've got a seven-year head-start on us, if our development takes the standard ten year period. We could try to hamper their development somehow – perhaps using our size in the market – but that wouldn't work for long anyway. They're a small company?

Yes.

And the client is a large company with lots of resources?

Yes.

Well, then maybe they should buy the start-up – that way, the start-up would get its capital, and the client would have a new drug that would trounce the competition in only three years.

Good. That's what we told them, and that's what they did.

Book Beast

Your client is a book club, the type of club where you get 4 books free and are committed to buying 5 more books at retail price, which is usually less than at a bookstore. Also, there is a book of the month you get unless you return the monthly card. Their profits are going down. What do you do?

Well, to address profitability I would look at revenues and expenses. Under revenues we have price and quantity. Have the prices changed that you pay for the books or the prices you charge to customers?

No, both prices have remained stable.

OK, then I would look at quantity sold. I would imagine that this is the problem. With all the competition in the industry, like Amazon.com, Barnes and Noble.com, traditional bookstores that have been expanding, adding coffee shops, etc, books on tape, libraries, etc. I would say that overall demand for books hasn't decreased, but that your demand has, is this correct?

Yes, that is correct. You are forgetting one competitor.

Other clubs?

No, actually I am thinking of another.

I am not sure.

Actually I am thinking of stores like Sam's Club and Wal-Mart. OK, what else would you look at?

Well I would also look at expenses. I would say there are four main costs:

- Actual cost of books
- Acquisition cost of customer
- Cost of keeping a customer
- Shipping Costs

Good, except actually shipping costs are considered a revenue because they charge more to customers than they actually pay.

OK, Well the other things are costs. You have said that the price of the books has not changed. What about the acquisition costs?

How do you think they acquire customers?

Well, I joined a CD club similar to this and I often see ads for these types of clubs in magazines and newspapers. Has the price for these ads increased?

In a way, the actual price has not changed, but how do you think the prices may have changed?

If fewer people are responding to the ads, then in a sense the ads are more expensive.

True, how would you calculate this?

Well if the ad costs \$10,000 and 10,000 people respond, then the acquisition cost is \$1 per person. If now only 5,000 people respond, then the acquisition cost has increased to \$2.00 per person.

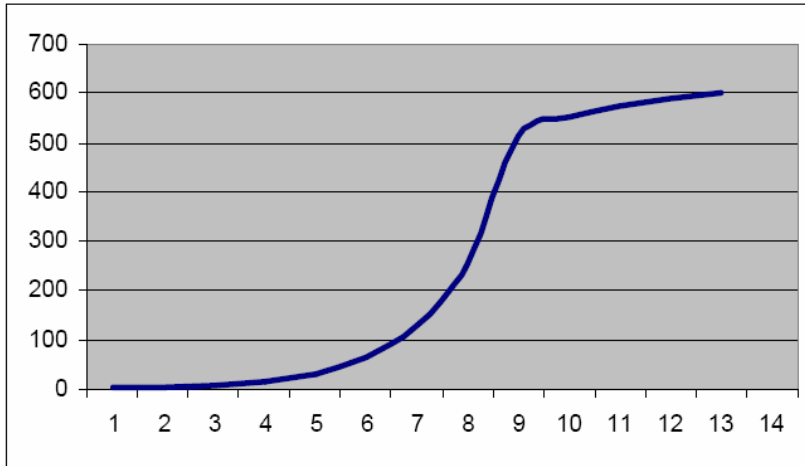
Yes, and as a side note, how would you estimate the size of the book market in the US?

There are 250 million people in the US. Taking out infants and illiterates I would narrow that number to 200 million. I would say on average each person buys 4 books per year. That would be 800 million books at say, \$20 a piece, for a grand total of 16 billion per year.

OK, we are out of time.

Party Power

Your client is an American party-plan selling company, which sells power tools through hosted parties. Tupperware is the classic example of this type of selling. The company has a small core of full-time corporate marketing staff that recruits consultants, who are independent contractors. The consultants recruit hosts, who hold the parties. The hosts invite purchasers to their parties to buy the power tools. The hosts are compensated with a free gift and discounts on their purchases. The consultants get a percentage of their hosts' sales. In addition, the consultants can recruit up to four layers of other consultants and get a portion of their revenues. The company started eight years ago and has had explosive revenue growth. Recently the rate of growth has started to slow. (See graph below for their revenues.) The client has asked you two questions: what is the factor slowing growth, and how can they improve the situation?



I would examine the four levels of selling to see where the problem is: purchasers, hosts, consultants, and central marketing. Let's start with purchasers. For them I would ask whether the average frequency and size of purchase has changed.

Good. The purchaser behavior has not changed—on average they buy as much and as frequently as before.

Okay—then it seems like the problem is that we aren't recruiting enough new purchasers. Let's look at the levels of purchaser recruitment. Are the hosts' behavior changed? Are they having as many parties with as many people as before?

Yes—nothing has changed there.

How about the consultants? Are they recruiting as many hosts as before?

Yes—nothing has changed there.

Okay—are the consultants recruiting as many other consultants as before?

No—the number of consultants being recruited has dropped, both with corporate marketing and via other consultants. Why do you think this might be?

I could be because the consultants don't have much incentive to recruit other consultants beyond the first 2 layers. If each consultant gets 10% of the sales of the consultant's they recruit, then by the fourth layer, \$1 in Consultant D's sales turns into \$0.10 for C, a penny for B and a tenth of a penny for A—so A doesn't care if D does well or even exists. Perhaps we need to increase incentives for the consultants by giving them more of a stake in increasing sales.

Okay—but the incentive arrangement hasn't changed—during the history of explosive growth we had the same incentives in place. Why aren't they working any more?

Hmm. (I'm stumped.) Well the key is to get new people—maybe the group of consultants that we have has just run out of new friends to recruit?

Yes—it turns out that they have basically used up all the raw material in their area. Almost everyone who is interested in doing a power-tool party recruiting have already participated. So now, what would you recommend?

Well, they should try and spawn out into new populations. Maybe they should look at the map of their consultants and see if there are areas in the US that they haven't covered. Then if it looks like New Mexico, for instance, isn't well covered, they should either direct corporate marketing efforts in that area, and/or give extra incentives to consultants who recruit other consultants in the target area. You could look internationally.

What would you look for in international expansion?

Well, I would look to see areas where DIY (do-it-yourself) was flourishing. For instance, I know that the UK has a very big, high-growth DIY market, and because of the common language, the UK is often less of a hassle to move into that other countries.

Yes. Let me tell you what happened with this company. It turned out that party-plan sales companies usually are based on fads, and so they grow and then burn out. The top-level employees then move onto another party-plan company selling another product. We proposed international expansion, and researched a few countries. It turns out that party-plan selling is illegal in China, but very common and accepted in Latin America.

In retrospect I think that the compensation for the four levels of consultants was a red herring, and I fell for it. I should have been concentrating on things that had changed since their sales started leveling off.

Soybean Sojourn

Soybeans are a commodity. 70% of all soybeans are used for chicken and pig food. It is a very efficient source of energy. Another use for soybeans is splitting it up into soybean meal and soybean oil. 80% becomes the meal and 20% the oil. Many soybeans are grown in South America, but demand for the meal and oil is growing in Asia. I am trying to decide if I should process the soybeans into meal and oil in South America and ship to Asia, or if I should ship to Asia and do the processing there. What should I consider?

Well, you need to look at the cost differences between processing in the two places. I think the major costs would be

- Labor
- Overhead
- Distribution once in Asia
- Transportation

Would the labor costs be less in either of the two areas?

No, both areas have relatively cheap labor and much of the process is automated.

I assume the overhead, i.e. factory, machinery, etc. would also be similar in the two areas?

Yes

And would the distribution be different?

No, once the product is there, the distribution to the rest of the area would be the same.

I must be missing something then, because if the whole soybean is used to make meal and oil, there wouldn't be any difference in the weight of the two products and no difference in shipping costs.

How would you verify that?

I would call a shipper and get a quote.

OK, assume now I am the shipper.

How much will you charge to transport soybeans from South America to Asia?

\$10.00 a ton.

OK, and how much will you charge to transport oil and meal?

Well oil travels in a different type of ship because it is liquid, and is \$20 a ton. The meal is \$10.00 a ton.

Since 80% is meal and 20% is oil, the shipping cost would be \$8.00 for the meal and \$4.00 for the oil, for a total of \$12.00 per ton. This is more expensive than shipping the beans so I would recommend shipping the soybeans and processing them in Asia.

Is this \$2.00 significant?

You mentioned that soybeans are a commodity. Usually in commodities small cost advantages can have dramatic results.

Maybe, how would you know if the \$2.00 is significant?

Well I would look at other costs, such as quality issues or intangible costs such as pleasing the government, etc. I would compare these other costs to the \$2.00/ton.

OK, but what else is important to consider? Does the margin matter?

Yes, I just assumed the margin is small because this is a commodity, but maybe this is not the case. If the profit on one ton of soybeans is \$10.00, then the \$2.00 savings is significant. If the profit is \$1,000.00 then the \$2.00 is probably not that important of a savings and the intangible or other costs would determine where you would want to process.

Good.

Gopher Grocery

A grocery chain in New England is considering offering an Internet delivery service (i.e., groceries can be ordered via the Internet and delivered directly to your home). Including the client, there are three main grocery chains in the area. One of them has already entered the Internet market. The only other grocery store currently offering Internet delivery service in the U.S. is a Midwest store. Should the client enter this market? If so, what issues would they face? If not, how should they protect their market share?

I would focus on three main factors: competitor's strategy, consumer demand, and the cost of running this service. I would decide whether to enter the market based on these findings. First, let's look at the regional competitor already in the market. When did they begin their service and how successful have they been to date?

They began about 6 months ago and approximately 1% of their sales are from the Internet. However, they are forecasting that number to grow. Of course, we can't know for sure what will happen.

Have your stores experienced any reduction in traffic over these last 6 months?

Well, perhaps a very small drop, but it's hard to say.

Can you tell me about the competitor's pricing through the Internet; are prices the same or higher than those in the retail stores? Actually, prices have been mixed with no noticeable trend. Honestly, I think they are still floundering to see if they can justify a premium.

[I'm getting the hint to move on...] I see, so it seems that we can't be sure based upon the competitor how successful this project may be, nor can we accurately forecast what the competitor's strategy going forward will be. Why don't we move on to consumer demand. The competitor's sales of 1% via the Internet is small. This could be because the trend is just starting to pick up or consumers are just not interested. I think I would want to conduct a survey of the client's current customers to assess their level of interest in the service. This is instrumental to determine the market size as well as to assess the threat of cannibalization. Additionally, I would want to survey potential new customers as well.

That's interesting...how would you identify these people ?

Perhaps we can obtain a listing of residents in proximity to each of our stores and cross reference them to credit cards used, "Price Club" membership, checks received, etc. In this way, we can determine who is not shopping at our stores and find out if they would use the Internet service. I would also use the survey to determine if consumers are willing to pay a premium for items purchased through the Internet to help with the pricing strategy. Based upon the responses, we can determine the potential market size figuring in cannibalization and pricing. Next, I would focus on the costs of running the service.

Good...what kind of costs do you think the client will incur?

Well, there is the cost of the server and maintenance of it, delivery and “order processing” personnel, insurance for the delivery people and inventory warehousing costs. My main concern in cost is the inventory. The client needs to assure not only that the retail shelves are stocked, but now also that there is inventory for the delivery service. The problem becomes, where to store the inventory...

You’re right, that’s a big concern. We were thinking that the client could store inventory at each retail store, use the current warehouse distribution centers or build a warehouse specifically for the Internet service. What are your thoughts on these options?

I think the answer to that depends on the time frame. If the client decides to move forward with the service, initially I think it would be wise to use the existing warehouse distribution centers, provided that they are strategically located so that groceries will reach consumers in a timely fashion and that they have additional capacity available. Building an additional warehouse is costly: the building itself, new personnel, training costs, etc. Unless there is a sustainable and sizable demand for the service, I don’t think these costs can be justified. The client would be wise to use what they currently have, wait and see what the longer-term demand for the Internet service is (eliminate the “fad” buyers) and then determine if a new warehouse is actually needed. I don’t like the idea of using retail stores because inventory storage merely takes away from retail selling space. In addition, retail stores probably don’t have the capacity to store inventory for themselves and the Internet delivery service.

Hmmm....well, what should the client do?

In sum, the client needs to determine the market potential, cannibalization and the cost of running the service. If there seems to be at least some demand and there is extra capacity in the distribution centers, I think the client should at least try the service for a little while. It won’t be too costly for them and this way, if the trend does begin to pick up, the client is ready for it. If the demand seems low or the client decides to not pursue the opportunity, they do need to be careful about protecting their market share. Perhaps they can do that by emphasizing the shopping experience at a retail store. They can run commercials showing that it is more pleasant to roam the aisles in search of your favorite foods, rather than trying to recall what you like by staring at a computer screen. They can also use the surveys to determine if there is anything about their current retail stores that can be improved to keep the customer in the store, such as music, cleanliness, staff, etc. In this way, the client can meet the consumers needs in the retail store and entice them to stay.

Well, that’s a great analysis...we actually did this case and took a very similar approach.

China Cancer

Our client is a major pharmaceutical company based in the U.S. with international reach. They are known in the industry for their cancer drugs. Recently, the company has experienced a decline in sales growth and is considering a new business opportunity. The U.S. market has many private companies that focus solely on cancer care. The client wants to own and operate a chain of private cancer care centers in China. These would be “out patient” type centers where patients could come in for treatments; long and short-term stays are possible. How would you evaluate the attractiveness of this opportunity?

I would evaluate the market for such a center in China: demand, competition and regulation. I would also assess the profit potential of the opportunity and consider if the company can take advantage of its strong reputation. To assess the demand for the cancer care center, we would need to determine the number of people in China with cancer.

How would you estimate that?

Well, we can look at the number of people currently being treated through cancer care units of hospitals, private care, etc. Alternatively, we could estimate the percentage of the population with cancer by looking at affliction rates across various countries and then multiply by the total population of China.

Ok, let's say that this is a large number and it is growing...what next?

Well, I want to look at the competitors in the market. You said the U.S. market already had a lot of cancer care centers; I'd want to find out who the major competitors are in China.

Actually, there are no cancer care centers like this currently in China; it would be a new concept. Who do you think the competitors would be for our client?

I would assume hospitals, nursing homes, private nurses. Also, China has a history of treating ailments through herbs and other natural substances; these old world physicians are probably a major competitor.

You're right. When we worked on this project, we found that a significant number of patients were being treated under these methods. Let's say there is still room in the market for our client to enter despite this. What else would you look at?

Well, then it comes down to the profitability of the centers. Profits are comprised of revenues and costs. Let's look first at the revenues, which are comprised of the number of treatments and the price per treatment. Since the center would focus strictly on cancer, I would assume the quality of the service would be better than the competition. [Interviewer nods yes]. Therefore, we could probably charge a premium for the treatments.

Oh? Do you think you can? Who is paying for the treatments?

Hmm...you have a good point. Here in the US, the patient's healthcare plan covers the cost of the treatment. Can you tell me about China's medical care policies? Do healthcare companies insure consumers?

Actually, in China the government pays for all healthcare. In fact, the government has predetermined fees that it will pay for all kinds of treatments. They will not pay for more than that amount.

I see. So our client cannot charge a premium and expect the government to cover the expenses. At the same time, since our client is providing premium service, I would expect that their costs are higher than those of hospitals, etc. Our client may not even be able to cover the cost of the care they want to provide through the predetermined rates. [Interview nods yes.] Ok, so now we have a different scenario. I think the client needs to assess if there is sufficient demand amongst the wealthier segments of the Chinese population for a cancer care center.

How would you determine the size of this new market?

Well, I think we can first segment the population of China based upon income and focus in upon the top income levels. We can then apply the percentage of cancer incident to this number to estimate the number of potential cancer patients in the selected segments. Perhaps we can calculate the cost of serving each patient and fixed costs to determine a breakeven number of patients. We can compare this breakeven number with the total potential cancer patients to determine the market share the client needs before they can turn a profit. Hopefully, this market share is reasonable and the client can move forward.

Well, you've covered most of the points that we looked into. Great job! Our client actually did move forward with the opportunity and was very successful.

Tragic Teleporter

Your client has developed a revolutionary product. It is a transporter machine that can take anyone (or anything) placed in it from NYC to London in 10 minutes. (This machine is similar to the contraption on Star Trek where the person is “beamed” to the location desired) How would you price one trip?

There are three things to consider: demand for the product, the client’s cost and the alternatives available for transportation. Can you tell me about the size of this machine? I mean, can you only transport humans or can you also transport, say, an automobile?

It’s rather large, but there are seats that are very spaciouly laid out. Let’s stick to humans and perhaps small packages.

Ok, well, I would think that most of the demand for this product would come from human usage and not from the packages. Because of technology, documents can be faxed, e-mailed, etc. which are also quick methods of transfer. Only larger packages or original documents needed in 10 minutes would comprise the demand on the package size. I’m going to focus on the human side.

That sounds reasonable. How would you assess demand from people?

Well, 10-minute travel time to London is very appealing; the only other alternatives are to take a regular air flight (7 hours) or to take the Concord (2 hours). Since the client’s transportation machine is much quicker, I would imagine that we could charge at least some premium over either alternative. Therefore, we are probably looking strictly at the business traveler or very wealthy individuals. I would further narrow the business traveler market by assuming that only top executives would use this machine. I don’t see many Wall Street analysts taking the Concord! To estimate this number, I would determine the number of top executives at all publicly traded companies and add to that executives at larger, privately held companies. For the wealthy, we can probably take the U.S. population and estimate the number of people in the top income brackets. Would you like me to go through these estimations?

No, let’s say we’ve done that and now you have a total market size estimate. What do you want to do next?

Well to develop a pricing strategy, we could use a number of methods. We could estimate the costs and then include a markup. Otherwise, we could take the price of an alternative product and determine the value of the extra benefits our client’s machine offers. Of course with either method we need to recognize the tradeoff between price and the number of trips demanded, as well from an economics perspective the marginal cost and revenues.

Ok, I don’t want to get into a quantitative discussion. Can you expand upon what the extra benefits of using the machine might be and how you assign a value to them?

Sure! I guess the main benefit is the timesaving the traveler obtains by the using the machine. Additionally, perhaps the actual ride, seating, etc. are more comfortable.

Let's concentrate on the time. Tell me different way you would value an executive's time?

Well, you could look at the total compensation vs. total hours worked to determine an "hourly" wage. Or, you could try to link the revenues of the business to the executive to determine how much revenue is generated by one hour of his/her time. [The interviewer is still waiting for more ideas] Hmm...you can probably argue that the additional time can bring in new revenues as well, so use an estimate of how much more money can be generated with the extra time (new deals/contracts, etc)..

That sounds great – thanks.

[This was definitely a case looking more for creativity and "out of the box" thinking more so than analytical skills. I have heard that during second rounds, BCG uses each of its interviews to test for a different critical skill. In this interview, it was testing creativity. The case part of the interview lasted less than 15 minutes]

Bicycle Brouhaha

Your client designs, manufactures, and markets a full line of bicycles. The company's sales and profits had been growing until three years ago when its profitability flattened and began declining. Why did this happen and how can the client fix the problem?

We'll start by examining elements of the profit equation:

Profit = (Price x Volume) – Costs

I'd like to assess whether revenues (price x volume), expenses, or both are the source of decreasing profits. Can you tell me how much revenues and expenses have been increasing or decreasing?

Revenues are growing roughly at the same rate as before the downturn. Expenses are increasing disproportionately, however.

So we need to determine the source of increasing expenses. Are cost increases due to operating or administrative activities?

Administrative costs are growing, but operating costs appear to account for the bulk of increased expenses.

Which components of operating costs – fixed or variable – are increasing?

Fixed costs are growing but variable costs appear to account for the bulk of increased expenses.

Which components of variable cost – direct or indirect – have been increasing?

Both have been growing, bicycles have become more sophisticated, with better materials and components. However, the increasing cost per bike has been comparable to the growing price/revenue per bike. Indirect costs are increasing disproportionately.

Which components of indirect variable costs are responsible – materials or labor?

Allocations of indirect materials are about the same (usage per bike has remained about the same). However, allocation of indirect labor appears to be the big problem.

Why are indirect labor costs increasing? It must be that laborers are spending more time on activities not directly related to the manufacture of a bicycle (or maybe sitting idle more). Are there bottlenecks in the system? In other words, has work-in-progress inventory been increasing?

Yes it has. When you look at the factory floor, you see many bikes waiting around. What do you think the bottlenecks result from?

It could be from capacity constraints.

No, it's not capacity related – there's plenty of throughput available. However, much time appears to be spent nowadays in setup-resetting paint booths, welding jigs, dies and presses, etc. Why do you think this has occurred?

Increased setup time can result from either an increasing number of setups per bike or increasing time per setup. Has time per setup increased?

No, it has actually decreased as workforce has improved setup tools, jigs, etc. In addition, workforce turnover and labor relations are all fine.

Then the problem must be the result of increased setups. That would make sense since you said earlier that bikes have been getting more sophisticated with better materials. There are probably more material options for bike buyers to choose from, forcing manufacturers to produce a greater of bike varieties. This would cause an increase in the number of manufacturing setups that were required.

That's correct. In addition, at the time of profit decline the industry was trending towards increased specialization in bicycles: touring/mountain/racing/hybrid/etc. This company had responded with rapidly proliferating product lines, leading to increased number of setups and lower volume per assembly run. What are some things the company can do to try to alleviate this problem?

They could try to rationalize product lines, and try to increase shared components across model lines. Also, greater volume on each production run may yield better results.

Good job.

NOTE: The key to this case is methodically dissecting the cost structure for the company, and knowing what the components of cost are (i.e. cost accounting).

Diabolical Diesel

There is a \$250 million German company that makes diesel ship engines. They make 27 engines per year. They have 90% of the German market share. This past year they posted a loss of 30 million. The two questions I would like you to answer are: 1) what are the causes of the loss and 2) what are the options for this company.

Since this company posted a loss, either revenues are down, or costs are up, or both. But, I won't be able to analyze the case without understanding the general business first, so I have some basic questions to start with: Is the company operating at capacity?

Yes.

What are the engines used for? Are they being replaced by other technology?

The engines power ships and are made based on blueprints supplied by a design house that the company pays a licensing cost to. The engines are not going to be replaced anytime soon, and are so similar that they are commodities.

[More general questions non-relevant] Let's start with Revenues. Have revenues decreased?

No.

Has demand decreased?

No.

Have prices gone down?

Not substantially.

Hmmm. That sounds suspicious. Let's come back to that. Moving on... Costs. Have costs at the factory been increasing?

No. In fact this company has just built a new modern factory taking advantage of all the cost savings of better production processes and automation. Labor costs have gone down as well.

Hmmm. That's good – labor costs in Germany are very high, that was my next question. What is the cost structure of the company?

60% are materials, 20% labor, 10% something else (I can't read my notes), 5% licensing, and 5% other. So what are the causes of the loss?

[Now, let's think. Profits are down, but the Rev-Cost=Profit equation seems not to be yielding that much more info. Think 4 Cs. We've already learned about the company, costs and customers – no major changes there. So what's up with the competition?] Has market share declined?

Yes. Market share used to be 100% of the German market.

[Ha Ha!] Has this German company been benchmarked against its competition?

Yes it has.

Do we know the cost structure of its competitors?

Yes we do. Competitors have 55% materials costs, and 5% less labor costs (See, we knew those labor costs would be important)

[Now stop. Think about what you have. \$250 million – costs = -\$30 million. \$280 million in costs, right? You can also figure out what the competitors' costs are. So you know how much profit margin they are making. (Use 100 as the revenues figure as a simplifying assumption (the costs are in percentages anyway). You can figure out that the profit of the other company is 18 million. Now, you know that labor is a cost factor. Yes, we visited it once, probe some more.]
Can labor costs be reduced further?

Not really. The labor is in a union, and the company just negotiated a better deal for themselves, and it is extremely unlikely that labor costs can be reduced further.

[Now the biggie: material costs.] Why are the competitors' material costs so much lower? What allows the competitor to gain a reduction in materials?

Volume discounts.

How many engines does the competitor make a year?

150.

[Ding Dong. 90% German market share with 27 engines. 10% market share – 150 engines]
Where is the competitor located?

Korea.

You now know that there is no way the German company can increase sales enough to stay in business, or reduce costs enough to stay in business or reduce prices. It looks grim.

So to answer the second question – choices. The company can either: build more capacity and try to sell engines outside Germany (in order to take cost advantages of higher volume), make another product, form a “buying consortium” with other companies that use the same materials in order to get the volume discount, or sell the company to a competitor. [There may be other choices, but time was up. In retrospect, although this wasn't a glamorous case, it forced me to think quickly, crunch the numbers quickly to get a sense of the scope of the competition's edge, and think about the national and international situation of trade and competition.]

Prescription Pharmaceutical

We just finished a post merger integration project between two mid-sized pharmaceutical companies. Each of them has broad product portfolios consisting of only branded or patented prescription drugs; neither company sells OTC drugs. The combined company's sales are the largest in the world, comprising 10% of the pharmaceutical drug market. All organizational aspects of the merger are complete (new positions have been assigned and assumed). The new Head of Development comes to us and asks if we can analyze the combined Development Portfolio. He is certain that some of the projects in Development can be eliminated; others he feels are blockbusters and should be fast tracked; others are middle of the road type products that may be successful and can continue through the normal development process. He wants our team to identify the appropriate product portfolio. FYI, here is what the development process looks like:

R&D → Pre-clinical → Clinical → FDA Approval → Launch

Each step in this process can take months or years to complete. Additionally, the number of products in each stage also decreases. For example, there may be 200 products in R&D, 75 in Pre-Clinical, 50 in Clinical, 20 in FDA approval and 5 in Launch.

To identify the ideal portfolio, I would analyze consumer demand, competition, and the expected profits and risk of each product in development.

First, I would identify what ailment the product is for and try to determine the total number of people facing this illness. I would determine the current market size for the illness and project it out to the appropriate number of year(s) the product requires before it can be launched. This will give us an understanding of the total market size for each product.

Next, I also want to look at what the competition is doing. In the pharmaceutical industry, being the "first" to offer a particular drug can give a company a competitive edge; once physicians begin to use a drug, I would assume it is more difficult to make them switch to a new drug unless it offered other benefits as well. Therefore, it is important to concentrate on what the client's competitors have in their development pipeline and their timeline of release relative to ours. I would also want to try to understand the potential reactions of competitors to our client's portfolio decisions.

Ok, let's say we've looked at the market size and the competitors, what's next?

Well, we want to identify the profit potential of each of the products as well as their riskiness. Based upon the availability, reputation and pricing of competitive products, I would determine the market share our client could expect for each product. I would then make pricing assumptions based upon the costs incurred and competitors' prices to forecast revenue streams for each product.

What are the different costs involved?

Well, there are all research, development and testing costs incurred prior to launch. Once a product is approved by the FDA for launch,...well, let's go through the value chain:
Approval → Manufacturing Costs → Sales & Marketing Expenses (training/education of physicians) → Distribution → Customer service

The costs for each product can then be subtracted from the revenue to determine profits for each year. Then, we must take the present value of the profit streams to determine the total profit potential, using an appropriate rate that considers the riskiness of the product.

Ok, let's say we've done all the research and have an enormous Excel spreadsheet that has total costs and revenues by product. What would you do? How do you make your decisions?

Well, we can calculate profits as total revenues less costs. One missing factor to consider, as I mentioned earlier, is the riskiness of the product. I would speak with the scientists working on each product to determine the probability of the product actually being launched. Then, I would calculate the expected profit; that is, $(\text{Probability of success}) * (\text{Profit Potential}) + (\text{Probability of Failure}) * (\text{Potential Loss})$. The potential loss is the total of the costs incurred prior to launching the product. [I actually drew a decision tree here showing the two branches of failure or success. BCG loves graphs, charts, etc.!] I would then select the top expected profit products, considering competitive positioning and timelines as we discussed earlier.

Tommy Toys

Your client is the third largest toy manufacturer in Europe and has come to you because their sales have been stagnant or even declining during the last few years. Sales had been rising before.

Why are sales like this? How can the client improve the situation? Which elements would you like to analyze?

[You will notice that in this case the candidate jumped immediately into asking questions rather than setting out in detail his method of approaching the case. Some firms recommend, however, that whenever appropriate you should first lay out your framework.]

How has the industry growth been during the past few years?

The growth has been pretty flat.

What is the client company selling?

They are currently the top 3 leaders in traditional toys, aimed at:

- pre-school children (0 to 6 years);
- girls toys;
- boys toys.

So what are the company's typical products?

The highest volume products are:

- plastic toys
- dolls
- vehicles + action figures + games

Does the client manufacture these toys themselves and if so where are the production facilities?

The client has its manufacturing done in Asia.

Is the business profitable?

The client's profit margin is about 10-15%.

I could already propose some possibilities the client could look into. The first one that comes to mind is that the client is not strong in the electronic game business, which has been the fastest growing segment over the last decade in the toy industry. The client should consider one of three options: either grow their electronics business themselves, or buy a company that already is specialized in electronic games, or else form a partnership with such a firm.

We would also need to investigate distribution issues in order to assess why sales are flat. How is their distribution strategy?

They have subsidiaries in the main European markets, responsible for sales in these markets. The sales force visits the distributors of the toys, which are mainly supermarkets and department stores on the one hand and toy shops on the other hand. The client has a good brand image in its markets. There is no problem in this respect.

Let's look into the issue of the customers then.

[At this point my friendly consultant thought it to be the ideal moment to present me with the following (hypothetical) situation:] "Suppose you are in a meeting with this client and the question arises as to how large the toy market really is in Belgium? What would you say on the spot?"

[Here my case turned into an estimation case.].

Let's say that we consider mainly (for this client) the market of 0-14 year old children. There are 10 million people in Belgium, which translates into about 3 million households if you take an average of 3 people per household. Not all households have children, and some have more than one, and so I guessed that there would be about 0.5 child on average in this age category per household, so 1.5 million children.

Then I looked at the gifts they receive and started to enumerate important occasions children at that age get presents from their parents: birthday, Christmas, beginning and end of school, and maybe one more occasion, which gives 5 in total. Then I said that each time the parents would spend 1,500 Belgian Franc (= 50\$) on average. So this means that each child receives toys for an amount of about 7,500 BFR per year.

I then multiplied the 7,500 BFR with the 1.5 million children to find my estimate for the toy market in Belgium of about 11 billion BFR. This was within 10% of the real figure.

Profit Slide

Our client is the association of New England ski resorts. It is 1985, and profitability of member resorts has been going down for two years. The association has hired us (1) to find out why and (2) to recommend what to do about it.

I would like to begin with the profitability equation to try to determine where the problem is, then drill down to look for its causes and figure out what to do about it. Let's begin with the revenue side. Has the average price of lift tickets gone down?

No.

Has the number of skiers gone down?

Yes. It's plummeted over the last two years.

Well that seems to be the problem, then, but before I go into the details I just want to check the cost side to make sure that nothing has changed there. Have fixed or variable costs gone up over the last two years?

No.

Let's go back to the declining number of skiers. I think the first thing is to figure out why the number of skiers is going down, then make some suggestions about what to do about it. There could be demand-side or supply-side reasons why the number of skiers at New England resorts is going down. On the demand side, people could be skiing elsewhere; or they could be doing other kinds of recreation instead, like going to the Caribbean; or they could be cutting back on recreational activities. On the supply side, some external factor like two years of warm weather could be causing fewer people to ski.

The weather has been fine, so how would you determine why the number of skiers was going down?

We could look at trends in ticket sales at ski resorts outside New England: if sales are going up elsewhere, then perhaps people who were going skiing in New England are now going to the Rockies or Europe; if sales are going down elsewhere, then it may signal that skiing is becoming less popular nationwide. Resorts themselves would probably not share this information with us, but there may be other organizations like our client that aggregate such information. To check any inferences that we made from these data, we would want to talk with people and ask them why they were no longer skiing in New England.

How would you find people who used to ski in New England but no longer do?

Probably the easiest way is to rent mailing lists from ski magazines, focusing on subscribers who live in New England or New York, and do a telephone or mail survey. In the survey, I would ask people how often they ski in New England, how often they ski elsewhere, how often they do

other recreational activities like go to the beach, and whether they had changed those habits over the last two years.

Good. Say you find out that skiing is as popular as ever, but that more people are now going out west instead of skiing in New England. What do you think could cause a shift like that?

The four main costs of going on a ski vacation are equipment, transportation, lodging, and lift tickets. I would say that equipment, lodging, and lift tickets are more or less the same in the Rockies and in New England. But someone living in New York or New England will have to fly out west, which is a lot more expensive than driving up to Vermont. That suggests two possibilities: either a raging economy is making people feel wealthier, so they're willing to pay more and fly out west, or (more likely) airlines have cut their fares, meaning that people would be paying a smaller premium to go out west.

That's exactly what happened. What would you do about it?

I would want to look at ways to drive the number of skiers or the revenue per skier back up, or drive costs down. We might be able to drive the number of skiers back up by reducing prices, offering regional passes, or offering additional services like a more comprehensive resort experience. Or we might be able to drive the revenue per skier up by increasing prices or adding on lodging, equipment sales, etc.

How important do you think the skiers will be to improving profitability at these resorts?

I think they'll be very important, unless we can drive costs down substantially.

What do you think the cost structure of a ski mountain is like?

I would guess that it is almost all fixed costs: the mountain, lifts, ski patrol, snowmaking, etc.—you have to have to pay for all that whether you have 20,000 or 2,000 skiers in a day. So variable costs will be a very small portion of the total.

True. Can you think of any other ways to recover those fixed costs?

Uh...

Right now you're only spreading your fixed costs over three or four months of the year, when people are skiing. What about the rest of the year?

Aha! This must have been when ski resorts started building golf courses, water slides, and so forth, so that they could get some revenue during the summer months as well.

Exactly.

Food Farm

A large food conglomerate (such as a Nabisco or Kraft) has a small plant in Maine that produces apple juice from one specific type of apple which is grown locally. The apple juice is premium priced and positioned. The company bought the plant from a local farmer cooperative a few years back with the hopes that the company could increase the plant's capacity through better management. The plant is currently operating at full capacity. There was an accident at the plant recently where a worker broke his leg. This incident prompted a review by OSHA (the govt. review agency in charge of occupational safety). OSHA has informed the company that an additional \$2 million investment is needed to bring the plant up to current safety standards. You have been hired by the company to help it decide what it should do. Specifically, you need to provide your client with a list of options and then identify the one that you recommend.

Additional information provided (if interviewee asks probing questions):

- The apple juice product is breaking even for the company.
- There are several other premium apple juice brands. The competition is stiff.
- There is a raw material constraint (there is a limited number of this specific kind of apple which is grown each year).
- The demand for the apple juice is strong. Consumer demand is only limited by the availability of supply. The strength of the demand stems from the uniqueness of the product (that special kind of apple).
- Producing a concentrate for the juice will not work for this plant (too costly to convert machinery and this specific kind of apple does not lend well to such a use). In other words, you cannot grow more apples or stretch more out of the current supply.
- The company's competitive advantage is its marketing expertise and distribution system.

After asking several questions to get more information, I outlined the following options:

- get out/ sell
- status quo approach (invest minimum necessary to meet govt. standards/do nothing)
- gung-ho approach (invest above minimum level in both the facility and the human resources)

It is important to list all possible options in an effort to be thorough, rather than to just identify one or two of the more viable alternatives. Then, I identified the stakeholders in this decision (the farmers, customers, company, local community, U.S. govt. regulators, and competitors) and discussed the advantages and disadvantages of each option for each of the stakeholders. In this question, the company is also asking itself, 'what is my internal rate of return?' (or are my funds put to a better use elsewhere in the organization). With this question in mind (and the fact that there is a resource constraint and the product is just breaking even), the company should get out/sell the plant. However, this option also has public relations implications (layoffs, bad PR because of the accident, news could leak that the company didn't have the best safety standards, etc.). The best option is to sell the plant to the farm cooperative or work out some joint partnership agreement with them.

The Official Approach:

There are three main options:

- walk away (shut down the plant or sell it)

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

- invest more money into the plant
- arrange a partnership agreement with the local farmer's cooperative who originally sold the plant to your client which would place the plant operations in the hands of the farmers while the company would market and distribute the apple juice. This is the approach that should be recommended to the client.

Additional note from the student:

This case is very unique. It serves a good purpose – which is to get the student to answer the question that is directly being asked (“what are my options, etc.?”) and, to use the biggest consulting cliché of all, to “think out of the box,” rather than fall into a safe case framework. The successful individual will probe for more relevant information and assess the situation by developing his or her own framework that is unique to the question at hand. The traditional frameworks serve as a good starting point, but don't be locked into them.

Concessions Champion

You are the manager of a food concessions operation at a stadium. You have 100 employees who can each sell ONLY ONE of the two products you offer: Coke or Sprite. Having done careful market-demand studies, you know with a VERY high degree of certainty that the salespeople you assign will create daily revenues according to the following schedule: The first person you assign to sell Coke will produce revenues of \$100, the second \$99, the third \$98, and so forth. The first person you assign to sell Sprite will produce revenues of \$90, the second \$88, the third \$86, and so forth. How many people do you allocate to sell each soft drink to maximize expected daily revenues?

This case tests your ability on your feet to think analytically using mathematical patterns. I think the best way to approach this case is to make a simple two column table on a piece of paper and list the expected returns for each soft drink:

Coke	Sprite
100	90
99	88
98	86
97	84
96	82 etc...

Then, simply start asking yourself, ‘Who will produce the most revenues?’ Each time you ask yourself this, put a number (representing the # of the salesperson-- 1-100) next to the figure in the table that it represents. For example, the first time I ask the question, I would put a ‘1’ to the left of the ‘100’ figure in the Coke column; the second time, I would put a ‘2’ to the left of the ‘99’ figure in the Coke column.

First the easy part: The first 10 salespeople would be assigned to Coke since all of them would produce more revenues than any of the Sprite. Now it gets interesting. The 11th salesperson would be assigned to Sprite (producing \$90); the 12th and 13th would be assigned to Coke (producing \$89 and \$88, respectively); the 14th would be assigned to Sprite (producing \$88); the 15th and 16th to Coke, etc.

See the pattern? Every third of the remaining 90 salespeople would be assigned to Sprite, and the rest to Coke. $90/3 = 30$. So, 30 people would be assigned to sell Sprite and the rest (70) would sell Coke ($100 - 30 = 70$). The trick with this kind of case is to recognize a pattern and apply an appropriate formula (i.e. knowing every third person is assigned to Sprite and dividing that by the remaining salespeople). If this kind of thing comes easy to you and you can do it in your head, good for you. If you can’t, don’t panic! Use pen and paper and realize it visually. I was given about 10 minutes to solve the problem, which is actually plenty of time to spin out the problem on paper enough to see the pattern.

Boiler Embroider

We were asked by a diversified manufacturing client to help turn around the steam boiler hose division. This boiler hose division provides boiler hoses for both external customers and the client's boiler division. How would you structure an analysis at restoring profitability? Where do you expect to save costs?

Background information on the client and industry includes:

- Boiler hoses are sold both with original equipment and as replacements.
- There has been increasing price pressure in the industry.
- The client is third of eight industry participants.

Additional information provided (if interviewee asks probing questions):

- Last year P & L showed (as percent of sales):

Raw Material	70%
Labor	20%
Distributed Overhead	10%
SG&A	15%
Profit	(15%)
- Raw material is a commodity petrochemical.
- At least two of the other companies in the industry are making moderate profits.

Baseline Approach: (avoid getting bogged down in the following areas)

- Drop the product line (not possible because hoses are necessary for boiler sales)
- Raw material prices (they are the same for all competitors)
- Allocation of overhead (no savings and provides little potential)
- SG&A (standard industry fee paid for independent installers)

Better Approaches: (move beyond the previous answers & incorporate the following)

- Scale economies (client is big enough to achieve scale production)
- Production technology (client has a modern plant)
- Labor costs (wage rate and productivity are average for the industry)
- Raw material purchasing practices (materials are purchased through long term contracts based on spot market minus a discount).

The Best Approach: (these, following a logical progression, stumble upon the answer)

- The product has been over-designed, requiring excess raw material. The answer should consider the following organizational implications:
- How is our product engineering operation wired into the marketplace? (There is little contact between the engineering and marketing/sales organizations).
- What kind of feedback are we receiving from our sales force? (Customers are delighted with our hoses, but don't require all of the product features).
- Are there other areas in the company where similar problems exist?

Competition Karma

Two companies are the only competitors in an industry and produce exactly the same product. Your client was the pioneer in the industry and has controlled 70% of the market for many years. Their competitor has always followed price changes initiated by your client. Recently though, the competitor has aggressively lowered prices 15% and has cut into your client's market share reducing it to 60%. Your client's profit margins are only 14%, so they are hesitant to match the price cut, but they are afraid that they will continue to lose share if they don't.

Assume that there is no threat of new competitors entering the market and that there are no substitute products. All inputs are commodities and are readily available. The end-users are sophisticated and make their purchasing decisions based mostly on price. How has the competitor managed to cut prices so dramatically and still make money and what would you advise your client to do?

Additional information provided (if interviewee asks probing questions):

- Industry growth has historically been 5% per year, but has flattened out completely in the last year.
- There are many buyers and the price of this product is a negligible input cost for them.
- Your client and its competitor both are financially strong divisions of larger unrelated companies.
- Raw materials make up 50% of the total cost of producing this product. All other costs are fixed.
- Both competitors use essentially the same process and have very similar cost structures.
- Capacity can only be modified in large increments and the competitor brought on a new line 6 months ago.

This case is all about capacity utilization with some game theory and defies most frameworks. Trying to apply Porter's five forces or an equivalent model will lead to series of "no, that's not an issue" comments. Don't get caught up with what the product is - it cannot be differentiated.

Market size is constant and market share for your client fell from 70% to 60%, so output fell by about 14%. Since 50% of the total cost is variable, 50% must be fixed. A 14% drop in volume would therefore equate to a $(14\% \times 50\%) = 7\%$ increase in average unit cost for your client (fixed unit costs increase!). Although specific cost data for the competitor is unknown, the increase in volume they have experienced has reduced their unit cost in much the same way. When the competitor increased market share from 30% to 40%, his volume increased by 33%. If we assume that the competitor has a similar variable cost component of 50%, then their average unit costs would have gone down by approximately $(33\% \times 50\%) = 16.5\%$ as they spread their fixed costs over a larger volume.

The competitor had an overcapacity problem and figured that they could make more money with higher volume by cutting prices. The 16.5% cost reduction offset the 15% price cut they incurred and their volume increased 33% so they came out way ahead. The rest of the solution is in game theory. Advise your client to match the competitor's price and follow their price changes to show them that they cannot undercut your price. Aggressively try to regain customers who were

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

recently lost by offering extra inducements to try to get back lost market share. Since your client is larger, they have a slight cost advantage and can fare better in a price war. Once the competitor is made to understand this, advise your client to incrementally raise prices and make sure the competitor follows. Since there are many buyers and the product cost is only a small contributor to their overall costs, it is unlikely that they will respond negatively to the price increases.

Phone Prick

My current phone bill is about \$100 a month, what do you expect it to be in five years?

Additional information provided (if interviewee asks probing questions):

- The subject is not currently married, nor does he have children.
- The subject is likely to be married in five years.
- The subject does not currently have a home office.

There are two parts of the calculation, the usage and the rates. Thus, usage will likely double. In addition, there is a possibility that the subject will have a home office in five years. The phone bill is made up of a flat rate for local charges (given as \$30), plus variable longdistance charges of \$70. Given competition in phone service both are likely to go down, with long distance going down more because it has more competitive pressures and is less influenced by high tax rates. Do the estimates and come up with a number. Do separate estimates for the home-office possibility and either use the probability of having a home office to estimate an expected total phone bill or give two separate answers depending on the scenarios.

The consultant gave a follow-up question: what is the confidence level for the estimate? You can say conservatively that phone rates are certainly not heading UP over the next five years so the conservative estimate would use current pricing. Also the home office scenario really influences usage.

Land Lover

A wealthy gentleman has recently discovered that a piece of land he is holding is extremely valuable. He wants to know what he should do with it.

Additional information provided (if interviewee asks probing questions):

- The man does not want to be actively involved in any business opportunity.
- The land is adjacent to a new booming suburb, further from the urban area.
- There are no roads directly from the city to this piece of land and only local roads to the suburb.
- The land is currently vacant.

The first step was to clarify objectives. I was given little information so I tried to understand the client's perspective. It was through my questioning of how much effort he wanted to put into running a potential business that I learned the client wanted a hands-off solution.

I then wanted to learn more about the land itself. I asked him to draw me a map, to describe the type of land it was (swamp, farm, etc.), and if there had been any inquiries from potential purchasers. I learned of the property assessment he had done and that the land was suitable for construction.

I directed the conversation to other issues that made the land desirable or not - political, regulatory, accessibility, etc.

Given the recent rise in the land's value, I learned that there has been an exodus from the city to the suburb. The man has the following alternatives: He can sell the land, develop the land and rent or sell it, or he can wait and see what happens. Use a profitability analysis to learn the costs and price that would give the greatest present value. Issues to consider include the regulatory impact of building (i.e. zoning laws), the accessibility of the property, and the population growth of the area (are people still moving out of the city, are they migrating from elsewhere, etc.).

We did not get much further and he asked for a recommendation. I said to develop the land and rent the properties. I received no feedback.

Credit Credo

American Express has faced strong competition from new credit cards entering the market. They are considering dropping the \$50 annual fee. What are the “economics” of such a decision and should they drop the fee or not?

Additional Information (Assumed)

- \$50 annual fee multiplied by the number of members.
- To overcome this loss, they have to increase the revenues from consumer purchases (1% from the retailer).
- Is it likely that current cardholders will spend more per year if the annual fee is dropped No. They'd still have to pay off their balance every month.
- Therefore, the only way to increase revenues from consumer purchases is to increase the number of AMEX holders.

- Structure Solution
 - Determine how American Express makes money.
 - Evaluate the pro's and con's of dropping the annual fee.
 - Make a recommendation.
- Make Estimations/ Assumptions
 - Number of current cardholders = 4% of the U.S. population (just a guess).
 - $250\text{MM} \times 4\% = 10\text{MM}$ current cardholders
 - $\$50 \times 10\text{MM} = \500MM annual loss by dropping the fee.
 - Current percentage revenue: 10MM members \times \$1,000 annual purchase (avg.)
 - $[10\text{MM} \times (1,000 \times 1\%)] = \100MM (Estimate of current percentage revenue)
- Answer the following key questions
 - Can we attract enough new members (without a fee) to offset a \$500MM loss?
 - Each new member contributes \$10 (1% of \$1,000 annual purchase).
 - $(500\text{MM} / \$10) = 50\text{MM}$ new members are needed.
 - 50MM new members is equivalent to 20% of the population (gut check)

Assessment / Recommendation

- Based on these assumptions, increased membership equivalent to 20% of the population is probably not likely. Don't drop the fee.
- May want to consider varying the fee (sensitivity vs. new members).

Healthcare Hoopla

A large Healthcare company has decided it is interested in substantially increasing the scale of its operations. Its goal is to double total sales and profits in less than two years. As a consultant brought in to assist them, what would you do?

Additional Information (Needed):

- What are the specific objective (quantifiable) advantages to pursuing and achieving this goal?
- What is the current scope of operations?
- In what areas of healthcare does the company do business? What is the current market share in these areas?
- What plans has the company already considered / is already considering?
- What is the competitive nature of the industry?
- What would be the effect on sales and profits of reducing prices/margins?
- What potential is there for expansion by acquisition? Do they have the financial capability?

Do potential targets exist? Can they get financing?

- What will be the reaction of the competitors to this expansion?
- What is their financial condition?
- What will be the reaction of the customers?
- What are the relevant current and anticipated government regulations?

A business can increase its profits (ROI) by increasing sales, increasing prices, or cutting costs. If the company's margins are consistent with the industry norms, it is unlikely that increasing prices or cutting costs are likely to provide a means to double sales and profits, particularly if the company operates in a moderately competitive environment.

The situation leaves only sales increases. Sales increases are achieved by:

- Selling more of the current products to current customers
- Selling new products to the current customers
- Selling current products to new customers
- Selling new products to new customers

The suitability of each of these options depends on the particular environment. In the particular example of this case, it turned out that the company could achieve its goals only by selling new products to new customers via some form of diversification.

Next, you should consider the potential for increasing sales by means of diversification through acquisition or joint venture. The relative benefits of each will depend on financial resources as well as the existence of suitable targets or partners.

Athletic Art

Your client runs a national chain of mall-based stores that specialize in athletic shoes (sneakers, cleats, etc.) and also carries sporting apparel (hats, t-shirts, etc.). There are two other mall-based athletic shoe retailers who are very similar to your client in terms of size, product mix and strategy. Your client informs you that profits are declining and wants you to determine why and recommend a strategy to deal with it.

Additional information provided (if interviewee asks probing questions):

- Sales are down at all three mall-based retailers, but sneaker industry sales are up overall
- Costs have increased, but all increases have been passed along to consumers to maintain margins.
- Non-traditional competitors have emerged who offer lower prices but no service.
- Customers fit into two segments, “users” and “fashionites.” “Users” represent 40% of sales and seek out durable products and knowledgeable salespeople. “Fashionites” comprise the remaining 60% and want to look good in the hottest new sneakers, but are more price conscious than the “users.”

Profits have decreased, so we use the profit equation, Profit = (Price-Costs) * Quantity.

A simple 3 C’s analysis will also help bring out the key issues - What are the company’s core strengths? Who is the real competition and what are they doing differently? What customer segments do we compete for and what are their unique needs?

Costs have gone up, but so has price, so margins are relatively unchanged. Profits have decreased, so quantity must have decreased also. Sneaker sales are up overall, but have decreased in the malls so the other distribution channels must be stealing share. The other distribution channels must be identified and analyzed in terms of their value propositions (price, selection and service). It turns out that discount stores offer lower prices, but little variety and no service. Mall stores offer good service but charge higher prices to cover their higher costs. The “users” depend on variety and quality service and have remained loyal to the mall-based stores.

Discounters do stock the hottest shoes at lower prices, so they must be stealing market share among the more price conscious “fashionites” who don’t care about service.

Since the mall-based retailer depends on both segments to survive, it cannot cut back on service for the users. It can, however, manage its inventory more effectively to offer discounts on the fastest moving “hot” shoes. Since the “fashionites” are likely to be in the malls for other needs, they should be able to draw them back into the stores. Losses due to the discounts on these shoes can be offset by increased volume, rapid turnover and complementary sales on t-shirts and accessories once these customers are in the store. The prices do not need to match the discounters since the mall-based store benefits inherently from mall based traffic and can charge a slight premium for the convenience of location.

Deep Discounts

Major discount retailer with over 1300 pharmacies. Pharmacy operations have flat sales in growing industry. Profitability is very poor relative to industry. Chain has history of decentralized pricing and promotion for pharmaceuticals, leading to strong autonomy in field operations, as well as wildly inconsistent pricing. Customer pricing complaints and customer attrition is chronic. New head of pharmacy operations has engaged us to “solve” the pricing issue. How should we proceed?

- Who are the customers? How do they select a pharmacy? How important is price? Customers are generally older, repeat, discount-sensitive shoppers (as opposed to convenience oriented shoppers). Customers may initially select a pharmacy on referral, location, or price and tend to build strong loyalty to pharmacy due to personal relation with pharmacist and high switching costs (transfer of records, etc....). Price tends to be a major factor. Particularly given nature of customer (usually pay in cash from fixed income) and trust relationship (Price fluctuations tend to be very bad). Inconsistent pricing on a give item may lead to price shopping, exposing all purchases to scrutiny and losing a customer.
- How do we Price? We generally recommend a standard mark-up from cost, with price matching to be determined by the pharmacist at the store. As mentioned before, this leads to wildly different pricing from store to store, as different pharmacists are vigilant to different degrees regarding optimal pricing strategies.
- Who are competitors? How do competitors price? Competitors come in three distinct groups: chain drug stores (Walgreen’s, Duane Reed, etc.), independent pharmacies, and discount chains with pharmacy operations (Wal-Mart, Kmart). Client is in the “discount” group, but competition is fierce between groups.

Next step, Pricing study: Select a market basket of items in commonly dispensed quantities and call for prices from a selection of competitors’ and our stores across the country. (Study finds that prices on high volume items are very erratic, from our prices at the higher end to well below cost at some discounters. Less common items display more consistent pricing across chains, with our prices more or less in line. The items with the most aggressive pricing are maintenance items that are taken for the rest of a patient’s life like heart, diabetes, and cholesterol. They represent an unavoidable expense and customers are very sensitive to pricing on these items).

Solution: Test a pricing program where prices are set centrally for a number of stores in different markets. In this test, set prices very aggressively for items identified as key items, and try to make up margins on non-key items. Monitor results, adapt and roll out if volume and profits warrant.

Ghastly Gamer

The CEO of a large, diversified entertainment corporation has asked our team to examine the operations of a subsidiary of his corporation that manufactures video games. Specifically, he needs to know if he should approve a \$200 million capital request for tripling the division's capacity. You are a member of the team assigned to this project. Assume you and I are at the first team meeting. What are the critical issues we should plan to examine to determine if the industry is an attractive one for the CEO to continue to invest and why?

[This case comes from an actual interviewer's guide]

Additional information provided (if interviewee asks probing questions):

- The division is the third largest manufacturer of hardware in the industry with ten percent market share. The top two producers have 40 and 35 percent market share. The remainder of the market is shared by small producers. The division sells to a broad range of consumers.
- The division's sales have increased rapidly over last year from a relatively small base. The current estimate is annual sales of 500,000 units. The current estimate of industry hardware sales is 5 million units annually. Industry growth has been strong over the last few months, although sales growth has slowed.
- The current sales price for the basic unit is \$45. The division remains less than 20 percent of the parent company sales. The two top competitors develop, manufacture, and sell both hardware and -software. While our client makes and sells its own hardware, it only sells licensed software. The industry growth of software continues to increase.
- The division estimates that the current fully loaded cost is \$30 per unit. Requested expansion should reduce the cost by 5 to 7 percent and triple production of the hardware units. The two top competitors are estimated to have a 10 to 15 percent cost advantage currently. The main costs are assembly, parts and labor.
- The division estimates much of initial target market (young families) has now purchased the video game hardware. No large new user segments have been identified
- Primary outlets of distribution are toy and electronics stores.
- The division currently exceeds corporate return requirements, however, margins have recently been falling.
- The hardware standards have been established by the industry leaders. The product features are constantly developed (e.g. new type of remote joystick) to appeal to segments of the market.

Baseline Approach: (the following must be addressed)

- What is the future market potential? The candidate needs to question the continuation of the growth of the industry overall. S/he might ask about the saturation of markets, competitive products (e.g. home computers), and declining "per capita" usage.
- What is the competitive outlook? The candidate should at least recognize the need to examine competitive dynamics. Issue areas might include concentration of market shares, control of retail channels, and the R&D capabilities (rate of new product introductions, etc.)
- What will the price/volume relationships in the future? Issues of prices might need to be considered.

Better Approach: (move beyond the previous answers & incorporate the following)

Market Potential

- Recognize that there is a relationship between market penetration and growth in new users which, when combined, yields an industry volume estimate.
- Address the shifting mix of product purchases, in this case from hardware (player unit) to software (video cassettes).
- Investigate buyer behavior in key segments, i.e., “fad” potential of product.

Software

- Recognize that the technology standards are set by the industry leaders. In this situation, the division, as a secondary player, will have to follow these standards. Recognize that different distribution needs may exist for different products (in this case hardware versus software).

Price/Volume Relationships

- Discuss the effect capacity additions can have on overall industry price/volume relationships and on industry price levels.

The Company’s Ability to Compete

- The candidate should ask what the expansion is designed to do.
- The candidate should explore the cost position of the client division relative to that of the other competitors.
- The candidate should seek to understand the reasons for poor profit performance of the division.

Technology Tantrums

You work at a large company, which has many divisions. Each division uses different brands of computers and software packages. As the new head of procurement at corporate headquarters, how would you go about convincing the divisions to adopt a common standard if you do not have the power or authority to force the change? What advantages would there be if there were a unified standard?

The obvious answer is that there would be cost savings from buying computers in bulk. Imagine each division needs 25 computers and each picks up the phone and calls around. Not much buying power. If you were instead representing the entire company and called around for quotes on 1,000 computers, you could probably get a much better price. This is a simple marketing concept: power of the buyer. This would also extend to software licenses, etc.

However, the better answer would then examine more closely the true cost of computer usage. While there would indeed be savings from buying in larger numbers, the majority of cost associated with a computer appears after you open the box. Just think back when you bought your computer for Columbia - in addition to the actual computer you had to buy software, cables, PC-cards, etc. And imagine if you had to pay \$\$\$ each time you visited the computer desk. And don't forget all the training costs associated with teaching people how to use their computers, etc.

In a large corporation, the major cost associated with computers is probably from tech support. A \$5k laptop is nothing compared to the annual salary of a tech support guy. In this hypothetical company, apparently each division has its own help desk. Corporate could consolidate these help desks and save money that way. If you remember queuing theory from Operations, you could argue you would need fewer tech support people since each could now help any employee.

So if the division agreed to follow a unified standard they would receive substantial benefits. They would spend less on the hardware and software because of increased buying power. They would also save money from not having to support their own help desks. In addition to cost savings, they would probably also receive quicker and better computer support.

EXTRA: What my interviewer seemed to really like is that I used as a framework the computer situation at my previous employer. I worked at a large firm and my division had its own computer policy. The other divisions in the company used Compaqs and Win95. However, my division wanted to use IBM Thinkpads. The compromise was that we would use Compaqs and OS/2. The rumor was that the golfing buddy of our division president was high up in IBM. We had our own help desk, which had to develop special applications that would work in OS/2, etc. The line was always busy between 9 am and 1 PM since that was when we needed to place in trades (and therefore use our computers). And after 1 PM the help desk usually just sat around. For a framework I just used the above points in reference to what was going on at my old firm.

Exxon Eagle

Suppose you are flying on a plane with the CEO from Exxon and you want to sell a consulting engagement. He has just left to use the lavatory and you have about five minutes to estimate his yearly revenues from personal automobile gasoline sales in the U.S. (excluding commercial trucks, boats, etc.) How would you go about coming up with this estimate?

- Assume the population of the U.S. is 250 million.
- Estimated number of people per household is 2.5, making 100 million households.
- Estimated number of cars per household is 1, which gives 100 million cars in the U.S.
- Assume each car gets filled up once per week (or 50 times per year to use simple numbers)
- Assume the average fill-up is 10 gallons. 50×10 is 500 gallons per car.
- Total gallons sold is 500×100 million = 50 billion.
- If average price is \$1.25, total revenue from U.S. automobiles is \$62.5 billion.
- Estimated market share of Exxon is 20% [the interviewer asked me why and I explained that I believed the market was basically an oligopoly with a few players dominating the market. This type of market typically has market share of the dominating competitors of around 20%].
- Calculated total revenues for Exxon from the U.S. household automobile market, therefore, is \$12.5 billion.

Beer Bottles

How many beer bottles are currently in circulation in the US?

First I decided to figure out the annual beer consumption to get at annual consumption of bottles.

I estimated the population of U.S. as 250M, took out children who don't consume beer (approximately 10%, which gave me the number of 225M). Then I divided it into men and women as they have different consumption patterns – men probably consume more. I estimated the number of men and women to be approximately equal at 125M and 125M. Then I estimated that men probably drink 2 bottles a week on average, making it approximately 100 bottles a year per person (heavy beer drinkers and men not drinking beer will average out), giving a total of 12.5B. Women probably drink 2 bottles a month making it a total of 3B yearly. The total yearly consumption is 15.5B.

This is where the trick was because my interviewer was not satisfied with a yearly number, he wanted to have a current circulation number. I used the concept of velocity to come up with the number: $\text{yearly consumption} = \text{current circulation} \times \text{some velocity (\# times the bottle goes through the economy)}$. I estimated the velocity to be around 70 assuming an average 5-day purchasing cycle. Thus the current circulation of beer bottles equals approximately 220M bottles.

Natty Knitter

I have an odd hobby (odd because this interviewer was male) of knitting. I knit about 10 sweaters per year. I am looking into this as a business opportunity and want you to estimate the size of the hand knitting yarn market.

First I would look at all the places that sell hand-knitted sweaters and ...

Actually, most of the hand knit sweaters sold in stores are produced abroad and the yarn they use is produced abroad. I am more concerned with the high quality hand knitting yarn sold in the U.S. for “hobby” type knitting.

OK, then I would try to estimate how many people knit or I could look at how many stores sell knitting yarn.

Good, there are 3,000 specialty stores that sell knitting yarn. Also some bigger stores, like Wal-Mart, sell a small selection of lower quality yarn.

OK, then I would take a sample of these stores and estimate their sales of yarn and then extrapolate that over the remaining stores. I would try to sample stores that are of typical size and revenues.

OK, I have data on 3 stores. The first is in Rhode Island and has \$100,000 in annual revenues. The second store is in Austin Texas in the owner’s garage. Its revenues are \$40,000. The third store is in Massachusetts and has revenues of \$170,000.

I don’t know if these three are typical and is not a large enough sample to base the system on. Hmmmmmm I guess if each store stays in business it must be making money. Maybe I can look at what it would take for each store to stay in business.

Good, what expenses would a store like this have?

Rent, Labor, Advertising, and the cost of the products.

The mark-up on knitting supplies is about 100%, although with sale items it averages around 60%. Of the expenses, the variable costs make up about 50% of expenses. What would be your estimates for an average size store’s expenses?

Since these knitting shops are probably not in malls, and one was even in a garage, I would say the rent is fairly low, say \$500 per month. There are probably just a few workers that aren’t too well paid. Maybe they are making \$30,000 a year.

Do you know what minimum wage is?

OK, so maybe they make \$15,000 a year. Advertising would consist of just local ads in papers and maybe a knitting magazine. I would guess that to be about \$2,000 a year. The sum of these

costs is \$38,000 per year. If this is 50% of expenses, then the total costs would be \$76,000. So with their 60% markup it would be....

For simplicity just base your initial estimates on break-even.

OK, then 3,000 stores that sell \$76,000 annually, it comes to \$228 million. Wow that is bigger than I thought it would be.

Actually the knitting yarn market is about \$350 million. Do you know why your numbers are understated?

Well, actually I would say that my number is somewhat overstated because there are other supplies, such as knitting needles, patterns, etc that would be part of the sales. But I also realize it is understated because we assumed break-even and I am sure most of these stores turn a profit or they would not stay in business. Also, we only counted the sales at the specialty stores. I ignored the sales at the Wal-Mart type stores.

Good.

Frequent Flyer

How many people fly in and out of LaGuardia every day?

My first attempt at this was to begin with the number of airlines that fly into/ out of LGA. I then proceeded to try to figure out how many cities these airlines fly to from LGA. This was nearly impossible to determine realistically. I asked to try again and the interviewer said “good idea.” I looked at the problem again and realized it was a capacity problem. No two planes could be on a runway at a given time and most likely had to be spaced by a few minutes for safety reasons.

With this assumption, I continued to break the day into peak (7am-10am, 3pm-8pm), midpeak (10am-3pm) and off peak times (8pm-11pm). I assumed no flights in the middle of the night. I further assumed planes are spaced 5 minutes apart at peak hours, 10 minutes at midpeak and 15 minutes apart during off peak times.

Capacity assumptions assumed 100% at peak, 75% at mid peak, and 50% at off peak. With an average plane holding 200 people, it would be $(200 \text{ people/plane} \times 12 \text{ planes/hr} \times 8\text{hrs}) + (150 \times 6 \times 5) + (100 \times 4 \times 3) = 24,900$ people.

With 2 runways, LaGuardia has roughly 50,000 people flying in and out every day.

The feedback I got was good (moved onto the next round of interviews). The interviewer told me he was looking for me to break the problem into peak and off peak times. To be even better you could give an answer for weekdays and weekends (peak times shift).

Ice Cream

How many gallons of ice cream are sold in the U.S. each year?

Ice cream can be sold through retailers and restaurants. First, let's analyze the retail sales.

Assume that of 250 million people in the US, 80% like to eat ice cream. That makes 200 million possible consumers. Ice cream sales are likely to be somewhat seasonal especially in northern states, so assume an average selling season of eight months in the North and ten months in the South, for an average of nine months for the whole country. During the season, assume that people eat ice cream twice a month, and assume that the average serving is one pint. Since there are eight pints in a gallon, retail sales will be: $200 \text{ million people} \times 9 \text{ months} \times 2 \text{ servings per month} \times 1 \text{ pint} / 8 \text{ pints per gallon} = 450 \text{ million gallons}$.

Assume that 80% of the U.S. population frequents restaurants, and that they do so at a rate of twice per month on average. That makes $250 \text{ million people} \times 80\% \times 12 \text{ months per year} \times 2 \text{ visits per month} = 4,800 \text{ million restaurant visits per month}$. Assume that 50% of these restaurants offer ice cream. That makes $4,800 \text{ million} \times 50\% = 2,400 \text{ million possible purchases}$.

Now assume that one out of ten times, the customer will order ice cream. That adds up to $2,400 \text{ million} \times 10\% = 240 \text{ million purchases}$. Now assume that the average serving is half a pint.

Since there are 16 half pints in a gallon, the total restaurant purchases come out to be $240 \text{ million purchases} / 16 \text{ servings per gallon} = 15 \text{ million gallons}$.

Total purchases of ice cream are 465 million gallons per year. Do a quick sanity check by dividing this number by 250 million people, which means that the average annual frozen yogurt consumption is $465/250$ or a little less than 2 gallons per head of the population – that seems to be reasonable.

Splitting (Dog) Hair

Are there two dogs in the world with the same number of hairs?

After a one-minute silence, the interviewer suggested that I divide the problem in 2 parts:

1. How many different possibilities are there for the number of hairs in a dog?
2. How many dogs are there in the world?

To find out the number of different possibilities of hair in a dog, I started by figuring out the hair-covered area of the smallest dog in the world and the largest dog in the world.

Approximate the body of a dog using geometrical figures: 1 cylinder for the body, four cylinders for the leg, 1 cylinder for the tail, 1 cylinder for the neck and 1 rectangular prism for the head. For simplicity, the interviewer suggested that I used only the body area to calculate the number of hairs.

The area around a cylinder equals: $p \times \text{diameter} \times \text{length}$.
Each of the cylinders' two lids has an area of: $p \times \text{radius}^2$.
Therefore, the total area of the cylinder equals:
 $p \times \text{diameter} \times \text{length} + 2 \times p \times (\text{diameter}/2)^2$.

I assumed the smallest dog in the world to be a newborn Chihuahua with a length of 10 cm and a diameter of 3 cm. Thus, the area of the newborn Chihuahua is (the interviewer allowed me to use $p=3$) 103.5 cm².

For the largest dog in the world I used an adult Saint Bernard with a length of 150 cm and a diameter of 50 cm. The area in the Saint Bernard's body is, therefore, 26,250 cm².

Then I ran into the problem of estimating the number of hairs in a square centimeter of dog skin. The interviewer suggested that I use 100 hairs. I asked the interviewer whether I could assume that all dogs, regardless of age and race, have the same hair density. He encouraged that to keep the problem simple.

So, according to our assumptions, the newborn Chihuahua has a total of 10,350 hairs while the adult San Bernardo has 2.625 million hairs.

Therefore, there are 2.625 million – 10,350 possibilities for the number of hairs in a dog, which I approximated to 2.61 million possibilities.

Now it is time to find out the number of dogs in the world. I let the interviewer know that I would exclude stray or organization owned (for security, etc) dogs from my analysis because I believe that most dogs live in households. He let me go ahead with my assumption.

I estimated the world population at 6 billion people. I assumed the average household size to be 5 people. Thus, there are 1.2 billion households in the world. I assumed that the percentage of

households with dogs in the world was 30% and that the average number of dogs per household with dogs was 2. Therefore, my calculation for the number of dogs in the world is 720 million. I now had the answers to the two parts in which the interviewer suggested that I divide the question but did not know what to do with them. I asked the interviewer whether I could assume if the possibilities of hairs in a dog were evenly distributed. The interviewer suggested that the probability was the same for any number of hairs.

I therefore assumed that the number of dogs for each possibility of number of hairs was equal and divided the total number of dogs by the total number of hair possibilities.

The result (720 million dogs in the world / 2.61 million hair possibilities) is 275 dogs per hair number possibility. Therefore, I concluded that YES, there are two dogs with the same number of hair in the world. But what if the question was “are there exactly two?”

Social Interaction

How many people have you interacted with over the last year?

Additional information provided (if interviewee asks probing questions):

Only count each unique person once (the interviewer complained that HBS students neglected this detail and came up with ridiculous answers like 13,000)

Break into manageable subcategories and estimate them separately.

- CBS - almost 2,000 students, faculty and admin., assume I interact with 25%, so say 500.
- Social Settings - Events occur once or twice per week, more around the holidays, so say 100 events per year. The average number of people is on the order of 10 per event. Same people at different events, assume I see the average person 4 times. $100 \text{ events} \times 10 \text{ people} / 4 \text{ times} = 250 \text{ people}$. Maybe 50 of these people are also at CBS, so round down to 200 people.
- Everyday activities - dry cleaner, supermarket, favorite pizza place, post office, etc. I typically interact with a cashier and server, so assume 2 interactions per visit. Assume 3 errands or visits per day = 20 locations per week, average visit interval is once every two weeks, so there are 40 unique locations $\times 2 \text{ interactions} = 80 \text{ people}$. Round up to 100 to account for my neighbors, doorman, my doctor, dentist, and other people I see over and over.
- Random meetings - people who stop you to ask for directions, people you talk to on the subway and people who attempt to steal your laptop or wallet - assume 2 people per week or 100 per yr.
- Other meetings - people you meet on vacation, at sporting events, shows, etc. Assume 50 people.
- Total number of people in a year = $500 + 200 + 100 + 100 + 50 =$ approximately 1,000

Band Aid

How big is the U.S. market for Band-Aids (the brand)?

- Band-Aids are used to cover up minor cuts. Assume that Band-Aid holds 75% of the U.S. market for bandages. The market can be segmented into two main categories of users: kids 16 and under who tend to get cuts more often, and adults over 16 who are more careful.
- Assume that the average life of a person is 80 years, and the population is evenly distributed.

That means that kids 16 and under represent $16/80 = 20\%$ of the population.

- Assume that they get a cut once every two months on average. If the U.S. population is 250 million, 20% equals 50 million kids. Once every two months equals six times per year, for a total of 50 million x 6 cuts = 300 million bandages.
- Assume that it takes three days on average to cure a cut and bandages are replaced once a day. That makes for 900 million bandages.
- The adults represent 80% of the 250 million people in the country, or 200 million.
- Assume that they get a cut once every six months that lasts three days, with bandages being replaced every day. That is 2 cuts per year x 3 days per cut x 200 million people = 1,200 million bandages.
- The total number of bandages, then, is $900 + 1,200 = 2,100$ million bandages.
- Assume there are approximately 20 bandages in a package, and a package sells for \$2. The total size of the market expressed in dollars is therefore $2,100 \text{ million} / 20 \times \2 which is approximately \$200 million.
- Band-Aid holds 75% of this market which is equal to \$150 million

Ski Sales

How many pairs of skis do you expect to sell in the U.S. market as an up-market new entrant?

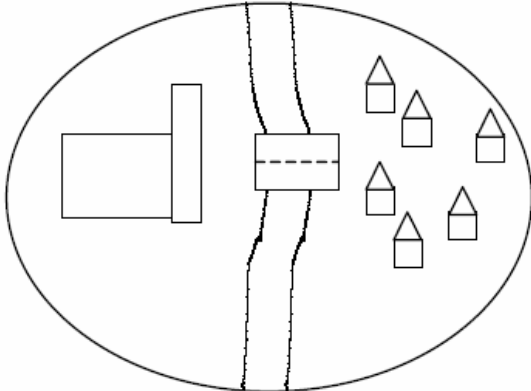
- Assume 250 million people in the U.S. 10% of those people ski which equals 25 million people.
- Assume a pair of skis lasts five years on average. This means that every year 1/5th of the skiing population buys a new pair of skis. That is 5 million pairs of skis per year.
- Now assume that 10% of the skiing population belongs to the “up-market” segment. Also assume that given the fanaticism and riches of this market segment, they replace their skis twice as often as the average person. That means that the market segment is $5 \text{ million} \times 10\% \times 2 = 1 \text{ million}$ skis.
- Assume there are five major manufacturers in this segment at this time. That means that each sells 200,000 pairs of skis each year.
- Assume that as a new entrant, you will be able to attain 10% of the average sales volume in the first year. That is $10\% \times 200,000 \text{ pairs of skis} = 20,000 \text{ pairs of skis}$.

Austrian Village

Picture a small town with a population of 10,000 people in rural Austria. A river divides the town. There is only one bridge with two lanes over this river and this is the only crossing point for several hundreds of kilometers. A factory stands on one side of the river and the entire population lives on the other side of the river.

The mayor of the village approaches you and tells you that the bridge presents a bottleneck to the village during rush hour when people are going to work (i.e. there are severe traffic jams). He wants you to solve the problem without spending a lot of money.

(The first thing I did was to draw a picture of the village.)



Just to make sure I understand this correctly, all villagers live on the right-hand side of the river, only the factory stands on the left-hand side of the river and only the villagers from the righthand side work in this factory.

Correct.

Is it possible to build another bridge?

No. We want to keep this as cheap as possible.

Well, let's start out by identifying when these traffic jams occur. What time do the villagers go to work?

There are two shifts; the first begins at 8am and the second starts at 9am. Each worker works 8 hours. Then they go home.

Okay. That implies that the traffic jams occur roughly between 7-9am, and 4-6pm. Do all men and women work at the factory?

No. Only the men.

Assuming 20% of the population is children, we are left with 8,000 adults. Assuming that the gender split in a typical Austrian village is 45% men - 55% women, we are left with 3,600 men that commute over the bridge. Does anyone besides the men have a reason to cross the bridge?

No.

This means that, given a constant travel rate amongst all the men, roughly 1,800 men pass over the bridge in one hour (3,600 men / 2 hours). This translates into 30 men per minute (1,800 men / 60 minutes) and if each drives one car, 30 cars per minute.

Okay. So now that you know when and why the traffic jams occur, what suggestions do you have to solve this dilemma? And please be as creative as possible.

(I could tell that I was on the right track. This guy was mainly looking for how creative I could be.) Well, given that most men travel over and back at approximately the same time, the mayor could give incentives to those men that car-pooled. The city could build car-pooling meeting points. This would eliminate a lot of traffic on the bridge. For example, if 3 men car-pooled every day, only 600 cars as opposed to 1,800 would pass over the bridge per hour (10 cars versus 30 per minute).

Good.

A second suggestion would be to open both lanes to traffic. Between 7-9am, all traffic traveling west to the factory would be allowed to use both lanes. The opposite would apply to the afternoon rush hour period from 4-6pm.

Good.

A third suggestion would be to subsidize those commuters that walked, used motor scooters or bicycles to get to work.

Good.

(I could tell that this guy still wasn't all too impressed. I sat there and thought for a moment about my personal life and what experiences I had witnessed. Then it hit me.) My final suggestion resembles something I saw in Santiago de Chile when I lived there. The city had a serious problem with smog and as a result restricted the use of motor vehicles on certain days. But instead of restricting everyone's use, the city gave motorists different colored license plates that could only be used on a specific day of the week. So for example, if your car had a red license plate, you could only drive the vehicle on Mondays, Wednesday and Fridays. If you had a green license plate, you could only drive on Tuesdays, Thursday and Saturdays.

Excellent! I have never heard that answer before. Good job.

After the last comment, I left the interview with a good feeling. I was lucky that I realized early on that the interviewer was more interested in the creative solutions I could come up with rather than just generic ones.

Fine Wine

You have two jars of wine: one of red wine and the other one of white wine. Each one is 100% pure. Now you take a glass and fill it with white wine and put it in the jar of red wine. You mix it and wait a couple of minutes. Then you take the glass and fill it in the jar which had originally 100% of red wine and put it in the jar with white wine. After doing this which jar is more pure with the original wine? (This is, is the jar which had originally 100% of red wine more “contaminated” with white wine or the other way?)

Intuitively the first thing that comes to my mind is that the white wine will be less contaminated with red wine since when you put back the glass of wine it will bring red and white wine...but on the other hand I also have to consider that what's not going back in the glass is staying...Can I change take a couple of minutes to think it?

Of course

I have it now, the answer is the same.

"That's correct, but how did you get it?"

Ok, there are two ways. First, assume hypothetically that when you take the glass back you are so lucky that you get all the white wine back. Therefore, all the white wine that contaminated the red wine is back on the white wine and we have the scenario of the beginning when they were both the same (100%). Now, lets think that we are less lucky and don't get a little part (lets say 1%) of the white wine. The glass will have 99% of white wine and 1% of red wine. Therefore, 1% of white wine stayed in the jar of red wine and 1% of red wine will end in the jar of white wine. So the final scenario is with both 99% pure. So, it will always be the same.

"Very good, what's the other way you were thinking?"

Say it's not wine and its ten small balls, 10 red and 10 white. You take 3 white balls and put them with the red ones. Now you pick 3 balls from the 13 (10 red and 3 white) and it happens to be 2 red and 1 white. Both will finish with 10 balls: one will have 9 red and 1 white and the other one will have 9 white and 1 red.

Quick Math

What is 78 times 82? (no paper permitted)

It's about 80 times 80, which is 6,400.

More precise answer [what he was looking for]: It's a binomial so you can solve it as $(80+2)(80-2)$ which simplifies to 80-squared minus 2-squared or 6,396.

How many handshakes will eight people have to exchange when they are leaving the room?

The first person will have to shake seven hands, the second person will shake six hands, the third will shake five hands...etc.

$$7 + 6 + 5 + 4 + 3 + 2 + 1 = 28$$

You have a board of 64 squares of equal size (8 squares by 8 squares). You eliminate two of the board's corners that are diagonally opposed to one another. You are given a limitless number of dominos, which are each composed of two squares (same size as those of the board). Can you fill the board with dominos so that each remaining square is covered? (you may not juxtapose dominos)

No. Think of the board as a chessboard. Think of each domino as a rectangle of one black square and one white square. If you eliminate two diagonally opposed corners of a chess board, these corners will be of the same color (either both will be white or both will be black). Since you are eliminating two squares of the same color, you are eliminating two halves of two dominos instead of eliminating two squares of different color that could have been covered by one domino.

Out of the Box

You are in a room with two identical closed boxes. The boxes have identical tags that read “NPV of the contents of this box is one million dollars.” What questions would you like to ask before you select one?

- What is the discount rate of each calculation?
- What is the time frame (and period length) of the two calculations?
- What is the range of possible outcomes of the two packages?
- What is the liquidity of each of the two packages?

Soda Cans

Why are soft drink beverage cans cylindrical?

- So that consumers won't cut their hands on the sharp edges. The shape is more comfortable and ergonomically appropriate. To maximize the ratio of the container's volume to its surface area short of using a sphere. This delivers more liquid per ounce of aluminum (more per \$).
 - A sphere would be impractical because it would not stack or stand up after it was opened.
 - Spheres would also require more air space between cans if they were in a box, vending machine or truck - a fact that could increase shipping and packaging costs.
- So that they will roll predictably and in control on assembly lines and vending machines.
- Because this container shape requires the least machining, joining, and finishing steps in manufacturing and is therefore the least expensive to manufacture.
- Circular structures distribute internal pressure. Further, structures with comers could develop fractures due to high stress at the edges.

Fridge Lights

Tell me all ways, practical or not, which you could use to determine whether a light goes off in the refrigerator when you close the door?

- With the door open, press the button that makes the light go on and off.
- Drill a hole in the door so that you can see inside when the door is closed.
- Find out the mean time to failure for these bulbs, close the door, and open it after the expiration time to see if the light is burned out.
- Go to the production line and perform a statistically valid test (appropriate number of samples) to determine whether the light always goes off (by pressing the button, etc.).
- Hook up an extremely sensitive electrical measuring device to the power source to see if the energy level drops when the door closes.
- Hook wires to the socket and perform a similar test when the door is closed.
- Place a sensitive thermometer (chilled to the refrigerator's temperature before testing) near the light bulb and close the door.
- Place some light sensitive material in the refrigerator to see if it is activated.
- Pick-up the phone, dial the manufacturer and ask if the light goes off when you close the door.
- "If no one is in there to see the light go off, does it matter?"

From UCLA's case-book

New Bulb Pricing (McKinsey)

Your client is General Electric (GE), and they've just developed a new product: a new light bulb that can last eternally. Your job is to help them go to market by defining their pricing strategy. The new light bulb cost \$1 billion to develop.

You:

Are the new light bulbs different from conventional light bulbs in any other way? Are the light bulbs intended to replace regular incandescent light bulbs or fluorescent light bulbs?

Interviewer:

You can assume that the new light bulbs can be used to replace both incandescent and fluorescent light bulbs. You can further assume that the new bulbs are perfect replacements for these types of bulbs (i.e., they are available in two different forms, one that is exactly like any other incandescent bulb, and one that is like any other fluorescent bulb).

You:

In order to determine the optimal pricing strategy, we'll need to look at both microeconomic and marketing theory. First, it may be useful to determine the upper and lower limits on the price GE can charge for its new light bulbs. In general, price is bounded by two things: the product's economic value to the customer (EVC) and the company's average cost in producing the product. The EVC sets the upper bound in price since a person will not pay more than the product is worth to her, and the average production cost sets the lower bound since the company can not earn economic profits if the price is below this point (in the short run, however, the company will want to produce as long as price is above average variable costs since this yields a positive contribution to fixed costs). The optimal price must fall somewhere within this range.

Interviewer:

How would you determine the lower and upper limits in price?

You:

The average total cost of production can be obtained by considering fixed costs for the product (e.g., overhead and administrative costs), plus manufacturing costs, plus distribution costs, plus selling costs, and so on. Of course, the average cost will vary with the level of production. Generally, the average cost function is U-shaped (where the x-axis measures quantity and the y-axis measures average cost).

Note that the average total cost of production is independent of the \$1 billion development costs. This makes sense since this is a sunk cost. The sunk cost does affect the overall return on investment (ROI) and the internal rate of return (IRR) for the project, however.

The EVC can be computed as follows: First, we assume for simplicity that the resale value of the new light bulb is negligible after it has been used for many years (this is akin to any other old

household item). We further assume that the average person will be able to use one of the new light bulbs for 50 years before it is discarded (either because it is accidentally broken or because the person dies and his belongings are disposed of). Finally, we assume that a normal light bulb lasts an average of 6 months and costs \$.50.

Now, to compute the EVC we need to determine how much one of the new light bulbs will save a person. Since we assume that the new light bulb has an effective life of 50 years, it will save a person \$1 a year from having to buy two old light bulbs for 50 years. Thus, the EVC is approximately the net present value of a \$1 annuity for 50 years (to be more accurate, we would have to consider the economic value of the time savings from having to buy and replace normal light bulbs, the reduced risk of being electrocuted from not having to frequently changing normal bulbs anymore, and so on. We assume that this is negligible.

At the same time, however, we must also realize that the new, significantly more expensive light bulb may be accidentally broken prematurely (e.g., while moving to a new house), resulting in an economic loss for the customer. The probability of this should be considered in the EVC.).

Interviewer:

Good. Now how would you determine the optimal price?

You:

From microeconomics theory we know that the optimal, profit-maximizing price is given by the equation,

Error! Objects cannot be created from editing field codes.

where E_p = price elasticity of demand for the new light bulb, MC = marginal cost of producing the new light bulb

Interviewer:

How would you get the elasticity and MC data that you need to use the optimal price formula?

You:

The marginal cost of manufacturing, packaging, distributing and selling the new light bulb can be obtained by performing a cost study of these processes. For instance, the marginal costs associated with manufacturing will include the costs of raw materials, direct labor, and energy. Of course, the marginal cost will vary with the level of production. In general, the marginal cost curve is roughly U-shaped.

The elasticity function is more difficult to obtain. Generally, this is hard to derive in real life, especially for a new product that lacks past sales data. However, GE may be able to estimate the demand and elasticity function for the new light bulb based on its historical sales data of normal light bulbs. Using this data in a regression analysis, it can determine what the key drivers of demand are. For instance, it can perform a regression analysis with sales quantity as the dependent variable and price and bulb lifespan as the independent variables (the exact type of regression model will need to be determined – i.e., logarithmic, linear, exponential, etc.).

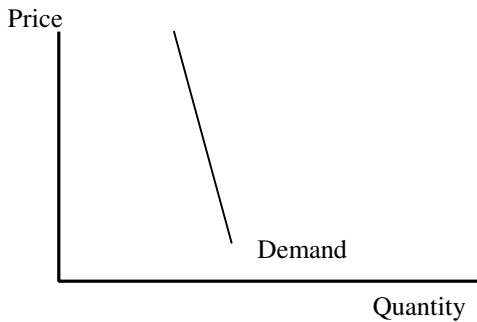
The elasticity function may also be estimated by conducting a survey of potential customers of the new light bulb. In this survey, customers can be asked what quantities they would purchase the new light bulb at different price points. This data can then be used to derive the elasticity function.

Interviewer:

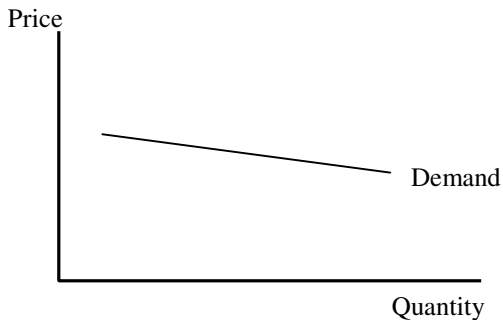
This sounds like a lot of work. Do you really need to do all of this to determine the optimal price?

You:

No, you're right. The optimal price can be accurately estimated. We know that at the industry level, demand for light bulbs is highly inelastic since light bulbs have become a necessity and there are few substitutes for them (cross-elasticities are low):



At the same time, however, light bulbs are a commodity. Thus, at the firm level, there is nearly perfect competition for light bulbs, and demand is perfectly elastic for any single firm:



As a result, the optimal pricing strategy for GE is to price its new bulbs slightly below the EVC for the new bulb (which is equivalent to pricing is slightly below the market price for conventional bulbs) since this will provide consumers a savings in using the new bulb (this assumes that the average production cost for the new bulb is below this price level. If it is not, it is not economical for GE to produce and sell the new bulb). If GE were to price its bulbs above its EVC, consumers would have no incentive to purchase it. If it were to price the new bulb at the EVC, the new bulb would offer no advantages to a conventional bulb, and it would just be another commodity bulb. As a result, it would not allow GE to significantly increase sales and profits.

GE needs to consider a few other issues in its pricing strategy. First, it should price its new product low initially to induce trial. Second, severe cannibalization of its conventional bulbs is likely to result. Thus, GE needs to ensure that the sale of its new bulb will offer a higher contribution margin than that from the sale of its conventional bulb. Lastly, GE needs to consider the industry's competitive reaction. Since the industry is a commodity market, $P = MC$, and thus, it is unlikely that competitors can afford to compete by lowering the price of their products. They may, however, attempt to build their brands to make their product less of a commodity.

Interviewer:

How would your analysis be different for GE's business customer segment (i.e., for businesses that use the new bulb to replace fluorescent lights)?

You:

In our consumer analysis, we assumed that the economic value due to the time savings from not having to buy and replace new bulbs is negligible (primarily because the opportunity cost is negligible – what is the opportunity cost of saving 2 minutes to pick up light bulbs while at the grocery store or from saving 2 minutes at home installing the bulb?) With business customers, however, this is not the case. The elimination of the need to replace bulbs periodically will save businesses money from having to hire maintenance personnel to do this. Thus, the EVC for businesses will be higher than that for consumers, and GE can charge businesses a higher price.

In addition, we also assumed that the resale value of a new bulb that has been used for many years is negligible for the consumer since, aside from garage sales, it may be difficult for the individual seller to locate a buyer (this is currently changing as a result of the Internet, though. But, then again, how many people would be willing to pay a non-negligible amount of money for an old household item, such a hammer or an old mirror, both of which can theoretically last a long time like the new GE light bulb?). This is not the case with business customers, however, since the resale market for old business furniture is relatively strong. In addition, it is likely that the expected lifetime of a bulb used in a business environment will be longer than that used in a consumer's home. The reason for this is that bulbs are generally fixtures in the office building even as the occupants in the building change. Thus, the expected lifetime of the new bulb in a corporate office is likely to be about the same as that of the building. These factors will allow GE to charge an even higher price to its business customers.

Interviewer:

Good. I think that's all I wanted to cover with this case. Do you have any question for me about the firm?

You:

Yes,...

Lodging e-Commerce (Diamond Technology Partners)

Our client is a large lodging company with well-known brands. Their strategy has been to maintain and develop their brands. They have about a 10% market share and this makes them one of the larger players

They are concerned with the impact of the Internet. They currently have a web site that allows customers to make reservations at their hotels. They expect to do somewhere between \$0 and \$90 million worth of business through their website next year. They want us to develop an e-commerce strategy that will prevent them from losing business to their competition and help them maintain and develop their brands.

You:

The case has at least three levels. The first level can be attacked using the basic three C's framework:

Competition:

Think about who the competitors are in this situation. There are two groups, the traditional competitors - other large lodging companies and new competitors providing travel services on the web. By identifying these two groups you can ask some pointed questions: What are the traditional competitors doing on the web?

Interviewer:

Most of them are in wait and see mode. Everyone has a web page. Some can make reservations on-line, some cannot.

You:

Are there new competitors such as startups that are providing travel-related services?

Interviewer:

Yes, they are still young, but growing fast. They provide many services such as rate comparisons and availability searches across competing providers of travel services.

You:

This answer should prompt deeper investigation: What travel offerings are start-ups selling?

Interviewer:

Some are doing hotels, some transportation, some are attempting to combine many services. It is not clear what will happen. These new companies are aggressive and are trying many innovative things that may or may not work.

You:

At this point you have some good competitor information that will be useful in levels 2 and 3 of the case, but time is short so it is probably a good idea to move on.

Customers:

It is always good to find out how the clients customers are segmented. This is a basic and very fair 3Cs question to ask. In this case the client is large and has customers across the spectrum. The high level segments are business travelers and vacationers. Business travelers are generally less price sensitive than vacationers.

In this case it is a good idea to dive a little deeper by asking more questions based on the information you uncovered so far: Which customer segments are currently using the clients web site?

Interviewer:

The web site is currently used primarily by business travelers.

You:

What types of customers are using the competitor's web sites?

Interviewer:

For traditional competitors the client thinks that they are similar to their own. For startups, they don't know, they are looking to you for these answers. We do know that some new sites are targeted to vacationers, others to business travelers, some to both.

You:

Company/Capabilities:

You already have much of the basic information about the company so you probably don't need to spend much time here gathering more basic information. A good question here would be to better understand the project: What are the clients objectives for their e-commerce strategy?

Interviewer:

They aren't sure, they are looking to you to help understand what is possible. They are worried about competition and want to build their brands.

You:

It may also be good to understand the financial situation of the company:
How does the balance sheet look, do they have the money to do anything?

Interviewer:

The finances are sound. The client has the capability to invest but the investment must be justified.

You:

At this point you have done a good 3C's analysis. Now comes the hard part, what next? This is level 2 of this case. It is not going to be possible to develop a brilliant and comprehensive e-commerce strategy in 20 minutes so a good tactic for attacking a broad strategy question is to develop a short list of options:

The Client has at least 3 options:

Option 1

Stay the course. Continue to enhance the current web site to make it user friendly, provide some incentives for reserving on line, track customer information to learn more about customers. Hope that strength of brands and customer loyalty will maintain market share and revenues. This option will have the lowest impact but makes our client vulnerable to losing business to innovative startups.

Option 2

Focus on cooperating with winning startups and make sure that their brands get good positioning. This would work best if there are clear winners in web travel services. However, if the client is concerned about brand building, this option may not provide the control they would want. They risk being "commoditized" by sites that focus only on price.

Option 3

Develop a comprehensive travel services website that competes with the startups and meets all of the travel the needs of our client's customers. The client is a leader in the lodging and can leverage experience and brand equity to build a successful Internet business. This strategy is customer focussed and provides the control that the client can use for brand building.

At this point you can further evaluate each option using a cost/benefit or risk/reward framework and follow up with a plan to do additional research and analysis that would allow you to select the right choice for the client. However, it is likely that the interviewer will interrupt and challenge you with questions about an area that they want to examine further. In this case, the interviewer might say:

Interviewer:

OK, those are good options, the client is very excited about option 3, they want to be aggressive and build their own Internet business. However, senior management is concerned about the impact that starting a new business will have on their EPS (earnings per share). What should they do to deal with this problem?

You:

Again, listing some options might be a good approach.

They could mitigate the risk by partnering. Potential partners could be airlines or existing startup travel services websites with weak lodging offerings.

They might also look to obtain venture financing to fund part of the business. If they are not concerned with losing control of the new business they could spin it off completely and make a small investment that would not require them to consolidate the financials of the new companies.

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

Depending on how much time you have, you could continue this line of discussion by asking what options the client might prefer and then further developing those options. However, if time is short it is always a good idea to summarize.

Amusement Park Expansion (BCG)

Our client is XYZ Corporation (“XYZ”), the owner of a single amusement park. XYZ has been approached by the local government and offered 100 acres of land adjoining the current amusement park for \$10 million. XYZ has engaged us to help them assess whether or not they should purchase the land and/or expand their existing park.

This is intended to be a two part question. Try to push the interviewee towards the qualitative (“strategic”) aspects of the case first. Midway through the interview, focus on the quantitative analysis of the case.

You:

The following facts are available only upon request for the strategic analysis:

- XYZ’s park is considered a regional park and does not get national attention;
- This is the only amusement park for a 250 mile radius;
- The average park visitor travels 30 miles to the park;
- Only 1% of park visitors travel more than 100 miles to visit the park;
- Other competing businesses in the area include: go carts, putt putt golf, video game arcades, water skiing and other thrill sports;
- The park’s attendance has been growing at an annual rate of 10% over the past five years;
- The average park visitor is 17 years old;
- 30% of the park visitors are adults (over the age of 18);
- All of the parks vendors (food, video games, and shops) are wholly owned by the XYZ;
- XYZ has the financial wherewithal to acquire the land and develop all 100 acres;
- Annual population growth for the 250 mile radius is expected to remain flat at 3%;
- It can be assumed that XYZ has the internal management expertise to operate a larger park and that enough local employees are available to run the new operations at existing wage rates.

The following is a potential framework that to organize qualitative aspects of your answer:

Market and Competition:

- After a careful analysis of the above facts, it appears that an expansion might be feasible, and is worth further consideration. Growth at the amusement park seems to be strong and although competitors exist for pieces of the amusement park’s business, no businesses directly compete with the amusement park for a 250 mile radius. Additionally, it appears that amusement park visitors of this park are generally unwilling to travel outside of the area to go to the next closest amusement park.
- It is also safe to assume that amusement parks, in general, have high entry barriers due to the initial capital investment, which might discourage potential new entrants. Along these same lines, the expansion of XYZ’s existing park might actually serve to discourage new entrants, since XYZ could end up having excess capacity which could give it a competitive advantage due to pricing flexibility.

XYZ’s Corporations Capabilities/Limitations

XYZ appears to have the financial wherewithal to expand the park, as well as the internal management to run the expanded operation. Also, given that XYZ owns all of the park's vendors, an expansion could bring in significant revenues in addition to entrance fees.

Interviewer:

About halfway through the interview, move on to the quantitative part of the interview.

You:

The following information is available upon request for the quantitative analysis:

- The amusement park averages 70% capacity, and is open year round;
- The capacity for the amusement park is currently 2,000 visitors;
- On 50 days a year, the park fills to capacity, resulting in long ride lines for visitors;
- It is estimated that the excess demand on these 50 days is approximately 600 visitors;
- The average ticket price is \$23 (\$30 for adults and \$20 for kids);
- The average visitor spends \$17 on food, games, and souvenirs;
- The land would cost \$1 million per 20 acres to develop (i.e. add rides, attractions, shops, restaurants, etc.);
- The expansion project would increase the amusement park's capacity by 25%;
- The expected rate of return on the existing business is 12%;
- XYZ has access to funds at its existing weighted average cost of capital;
- The profit margin on XYZ's operations is 20%.

An NPV analysis is very useful in the assessment of this potential project. All of the costs of the project should be considered as well as the annual free cash flow from the project. The costs include the cost of the land, the cost to develop the land, and the marginal costs of running the new operations.

Costs:

Item	Cost
Land	\$10 million (all year 0)
Development Costs	\$5 million (all year 0)
Marginal Costs of Running Operations	80% of Revenues (on-going)

Revenues:

Assuming that historical growth trends continue, and that when the park fills to capacity visitors stop coming, the following is a potential NPV scenario...

On the 50 days that the park experiences excess capacity, 500 additional visitors could be admitted due to the park's expansion. Each visitor is assumed to spend \$23 to enter the park, and \$17 at the vendors, for a total of \$40 per visitor.

Annual Revenue = 50 days * 500 additional visitors * \$40 per visitor = \$1 million

Assuming that XYZ's incremental profit margin will remain the same for the expanded section of the park, the 20% profit margin can be applied to these revenues to determine the net profit margin.

$$\text{Annual Profit Margin} = \$1 \text{ million} * 20\% = \$200,000$$

Assuming that future capital expenditures match depreciation on the expanded section of the park, annual free cash flows due to the expanded section of the park would equal the annual profit margin of \$200,000. Assuming that the growth is constant at the historical rate of 10%, and that the appropriate discount rate is 12%, the free cash flows can be discounted as a perpetuity.

$$\begin{aligned} \text{NPV of Project} &= -\text{Land and Development Costs} + [\text{Free Cash Flows} / (\text{Discount Rate} - \text{Growth Rate})] \\ &= -\$15 \text{ million} + [\$200,000 / (12\% - 10\%)] = - \$5 \text{ million} \end{aligned}$$

Based on this, it appears that XYZ should not expand its existing amusement park since the project has a negative Net Present Value.

Amusement Park Expansion (BCG) – Alternative Solution

You are a large theme park, the government is selling the land next door. Do you want to buy it?

Possible Answer:

This is a new New-Market Question (disguised)

Framework: Three C with Revenue minus Costs in it

I discussed various uses of the land, but she led me to the question of building a second theme park.

Based validity of my answers to the data she gave me:

Competitor:

One other local theme-park: focused on teenagers and rides, I focused on families. Also compete with other leisure activities:

Customer:

- Thought about segmenting to another market: no lead there.
- Realize 30% local market, 70% national market. National market has small growth, my old park has solid growth. Market is there.

Company:

Current theme park has 80% utilization. We also own nearby hotels to get extra revenue, at 70% utilization.

New Venture:

Cost Fixed up-front 800,000,000

Need to estimate revenues:

Interviewer says old park:

- 35\$ average ticket
- 15\$ average concession
- 10\$ merchandise average.

We need to realize that the new theme park may cannibalize or may add value to old theme park through price.

Other key info gleaned during interview:

- Land costs 200 million. To build up the area would cost 600 million.
- Variable cost per customer is currently \$25. After an expansion, it would be \$40.
- Average revenue per customer is \$55. With park addition, average revenue would be \$60.
- Six months out of the year, the park sells out. With additional capacity, the park could raise attendance by 30% during this period.
- There are twelve million total customers during the year. Eight million during the peak season.

Analysis:

I first tried to determine whether the current demand was sustainable. It was a basic marketing analysis of trying to figure out who the customers were, the key drivers of demand, and whether the theme park could continue to offer a product that met these demands.

Second, I did a an NPV of the project:

Revenues after expansion:

Customers: 12 million + (30% of 8 million) = 14.4 million

Rev/customer: \$60

Revenues: \$864 million per year

Costs:

Fixed costs: \$800 million

Variable cost/customer: \$40

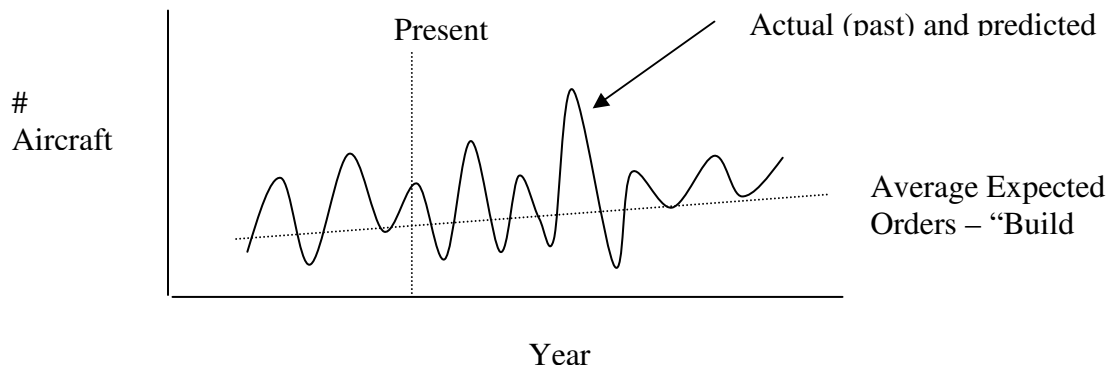
Total variable costs: 576 million

	Revenues	Costs
Y1	\$864 million	1.376 billion
Y2	\$864 million	576 million
Y3	\$864 million	576 million

I assumed that this addition would generate revenue for 20 years. Even after discounting, the project has a positive NPV, so the amusement park should purchase the land.

Aircraft Manufacturing (A.T.Kearney)

In the 1970's, Lockheed Martin manufactured L-1011 wide-body aircraft for commercial airlines. The industry was very cyclical with swings in demand occurring a frequently as every 6 months (see chart below). During the down months, the Lockheed would have to layoff employees and shutter the plants, which created turmoil for the company and the local community. Jet aircraft were normally built to the order specification of the purchasing airline. To alleviate the costs of cyclical swings, Lockheed considered building aircraft to a predetermined schedule based on average expected aircraft sales over the next five years (see below). Do you think this is a good idea? What are the pros and cons of pursuing such a plan?



Possible Solution:

Unlike some other cases, this case doesn't really have a yes/no solution. The important thing on a case like this is to identify the major issues and state your approach for arriving at a solution. The interviewer wants to see if you have a basic understanding of manufacturing business and the costs inherent in running such an operation. On a real problem like this, you would need to model the costs (with a spreadsheet) of the current (build to order) approach and the new approach (build to schedule) and then test the new approach under a range of sensitivities, both positive and negative. Revenues are unlikely to be impacted by this decision, unless having aircraft in inventory would facilitate greater sales.

A good case solution would identify the cost drivers and risks and arrives at an educated guess of the right answer. Let's look at some of the costs and how they would be impacted under a build to schedule plan:

Inventory or Working Capital Holding Costs

This could be huge under a build to schedule. If demand is not as predicted or the market heads into a cyclical dip, Lockheed could end holding a lot of very expensive (tens of millions of dollars) of inventory that just sits on the books. At a 6-8% risk free rate of return, the inventory holding costs of such expensive assets would add up rapidly.

Labor Costs

Labor would probably be cheaper under a build to schedule. The company could avoid costly retraining and rehiring of its workforce after layoff. Additionally, the company would have to pay less severance costs due to fewer layoffs. With a more guaranteed production schedule, the

company may be able to extract wage concessions from its unions. But, such savings would evaporate if the company were to busily build new aircraft that the market doesn't want.

Technological Obsolescence

With build to schedule, you run the risk of building aircraft that aren't demanded in the marketplace because they are obsolete. Thus, if a competitor introduces a much better model at the existing price points or a technology change renders current models as inefficient, Lockheed would have to liquidate any existing inventory at fire sale prices.

Forecasting

A build to schedule plan for such costly goods requires a very accurate forecast of future demand. Can demand really be forecasted with sufficient accuracy?

Rework Costs

Airlines request specialized configurations of the aircraft to meet their particular needs. If the company pursues build to schedule, they would need to budget rework costs to change pre-built models to the specifications of the purchasing airline. Or, if they only build aircraft partially, how will they handle the production backlog of moving these partially completed aircraft through the remaining production steps?

Fixed Production Equipment and Facilities

In general, the fixed costs of production equipment and facilities should not change with a change in production approach. Now, if the company amortizes equipment on a per unit basis (vice yearly), then net income could be affected under the new plan. But, cash flows, the important thing to look at when making business decisions, should not be affected.

Variable Materials Costs

These include materials and components required for building the aircraft. Under a build to schedule plan, Lockheed could probably negotiate lower costs from their suppliers since they would be able to guarantee a steady stream of purchases.

Unused capacity

Under build to schedule, you're likely to have unused production capacity since you currently carry sufficient capacity to meet cyclical demand surges. The analysis should carefully examine the existing production assets to determine if savings could be realized through capacity reduction.

After identifying the variables, the interview would expect you take a guess on the right answer based on your assumptions. It turns out that build to schedule approach is not viable for this company because they cannot predict demand with sufficient accuracy and the capital holding costs are too expensive.

Thermal Imaging Market-entry (Booz Allen Hamilton)

A manufacturer of military equipment has a thermal-imaging device that they would like to market commercially. They have a device in development that will allow firefighters to locate people in burning buildings. The small handheld device can look through thick smoke to identify people behind walls and huddled in closets. It's small LCD screen will provide an image showing the outline of human figures and other features in the room. Should they continue development of this device and market it?

Possible Solution:

While several frameworks would be appropriate, the Marketing 4 P's is a good place to start. You could start out by saying, "First, I would want to analyze the product itself, does it have any competitors and is the product really needed? Next, I would want to understand the company's costs. Military produces are not particularly cost conscious, can they produce this device at a cost that local fire departments can afford? Next, I would want to gain an understanding of how this product would be promoted & marketed. How do companies that provide fire equipment currently reach their target customers? Do the firefighters themselves make the purchase decisions or do they recommend purchases to a city administrator that has the final decision? Next, I would need to look at the distribution. Is fire equipment typically sold through wholesalers or do companies sell direct? If wholesalers are used, do we need to make arrangements with them to get access for our product? Also, can we keep our product affordable after including commissions for sales reps and the wholesaler margins? After an opening roadmap as stated above, it would then be useful to drill down into each area to try to arrive at an answer.

Product

Is a product of this nature really needed (interview with fire departments could reveal this)? Can firefighters really use this product while holding onto axes, hoses, and other things needed to do their job? Competitors?, Product weight and size? Likely competitor response if there are none now.

Price

How do product costs compare to other firefighting products or competitors providing a like product? Is the price within the budgets of fire departments? If a price war erupts with a competitor, can the company maintain sufficient margins to be profitable

Promotion

Need to segment marketplace into city high rise, urban (3 story and lower buildings, apartments), and suburban (single-family homes), etc.? Does the product appeal to all three segments? How do each of these segments purchase fire equipment and who makes the decisions? Are there strong brand names in this category that our company would have to overcome? In case of strong brands, does it make sense to form a partnership with an existing manufacturer of firefighting equipment?

Place

Distribution path, Do only a few suppliers have access to the purchase network. Would you build the product to order or do you envision keeping inventory in the supply chain? Currently, you do not have a sales and service force because you deal with military contracts. Perhaps it would be better to outsource these roles or again, form a partnership with a company that has expertise in these areas.

Based on the answers to these and other questions, you can arrive at a qualified answer. “Something like, based on the information gathered so far, it looks like an attractive opportunity. The competitive environment is light, there is a clear need for the product, and the company can produce the device at an attractive price for local governments. Sales and marketing is a concern, but the company can explore partnerships to attain these capabilities. Of course, I would want to do a more thorough analysis before making a decision for the company to go forward”

Power Transformers Market-share (BCG)

A manufacturer of power transformers has been experiencing a decline in the market share. The client has the biggest market share in the industry, closely followed by number 2 and 3 players. Number 4 and 5 players have been relatively new competitors, been able to gain market share quickly. Our client has been experiencing declining revenues and profits. What should the client do?

Possible Solution 1:

(I used very little frameworks, I had to ask a lot of questions to find out all the info. The interview was very interactive.)

It turns out that there has been no new technology in the industry and our client's prices have been relatively stable. The product is sold mostly to utilities by bidding, and lately, we have not been winning enough bids. Therefore, our competitors must have been able to undercut us on price. The hypothesis then is that they have a lower cost structure but we don't have any info on their cost structure. The product does not differ much in quality.

When our client receives the order, the engineers design the product based on the specifications given. It turns out that engineers spent a lot of time designing the products because they enjoy coming up with innovative ideas. However, they are not necessarily adding value by designing cool power transformers.

The products can be classified into three categories (medium, large, and something - not important), in each of these categories the manufacturing process is somewhat similar.

Therefore:

1. Break down each activity as a percentage of total cost.
2. You will find out that design is really a much bigger percentage of total costs than what it should be.

Recommendations:

1. Engineers need to be explained how their work affects the cost of all subsequent activities, such as assembly, purchasing, etc. They need to design with cost savings in mind, for example, use the same components when necessary instead of carrying huge inventories of every possible component.
2. Share knowledge from one project to another, they shouldn't have to duplicate the design part that applies to every transformer every time.

Possible Solution 2:

Other A: Revenues falling can mean one of three things:
prices are steady and quantity is falling, or
quantity is steady and price is falling, or
both price and quantity are falling.

After a series of questions, I discover that the firm has been losing bids with their customers, utility companies. To discover why, I backed up and considered the market that the firm was operating and found out that they had 4 other competitors bidding on transformer sales. The #2 and #3 competitors were also losing revenues (and market share) while the #4 and #5 competitors were gaining share. The #4 and #5 companies were starting to win more bids from the government because they always came in at the lowest price. Their ability to do this (as I later discovered) was due to an effective integration of their bid, design and manufacturing processes, which lowered their operating expenses and allowed them to come in with lower bid prices yet maintain their margins.

An alternative approach would entail:

Taking inventory of all real estate holdings

Determining redundancies by location.

Combining those facilities where there will still be utilization is under capacity.

For those facilities where utilization would exceed capacity, determine NPV of staying put, expanding existing facilities, or renting new space.

Hospital Profits (McKinsey)

Situation:

A not-for-profit hospital asked McKinsey to help reduce the \$10 million loss that the organization was experiencing for the last 3 years. If the hospital continued this level of loss for more than 2 more years, then the hospital endowment would be completely gone and the hospital would need to close its doors. Quick action was necessary.

Problem:

The chairman of the hospital's board asked you to help develop a plan to quickly return the hospital to a small profit. What framework would you use to help you frame the issues?

Solution:

The best framework for this case is probably the profitability framework (cost/revenue first branch). Try to think through how this structure might apply to a hospital setting.

Situation:

The McKinsey team quickly realized that the hospital's loss was due to a new law which basically fixed hospital prices because of the new DRG (diagnosis related groups) hospital payment system in New York State (i.e. price per unit could not be changed).

Problem:

What profitability improvement levers should the team focus on first if the team wants to quickly reduce the hospital's loss? What would you expect to find?

Solution:

A good approach to this issue might discuss the different costs associated with performing the hospital's services and the current capacity vs. demand for the hospital. The correct conclusion is that it is quicker and easier to change the cost structure and capacity of an organization than to change the demand for the hospital's service (remember the price per unit is fixed so the revenue lever remaining is increasing the units of service). As it turned out, the hospital had more capacity than necessary and very high fixed costs. Reducing the capacity and shifting some costs from fixed to variable would help restore the hospital's profit.

A more complete answer would discuss some of the revenue levers even though they may take longer to work. The team could explore some of the marketing issues such as:

What draws physicians and patients to a hospital and from where do the patients come? (It turns out that most of the patients come from the local communities surrounding a hospital and that focusing efforts on local neighborhoods that are underrepresented by the hospital can increase patient volume.)

How does the client hospital compare to the competitors along service dimensions that are important to patients and admitting physicians? (The hospital was outstanding at patient care but lacked convenience.)

What are the trends in patient care and how should the hospital change to exploit the opportunities? (Recent trends are toward outpatient services and away from admitting patients for long periods of time. For example, cataract surgery used to be an inpatient procedure requiring a hospital stay of three days or more. In the last few years, most of the cataract procedures performed require no hospital stay. There seems to be an opportunity providing a very convenient outpatient facility to the community.)

Eye-drops Pricing (McKinsey)

Situation:

You have worked as a McKinsey associate for two years and have recently become an engagement manager. As you complete your preparation for a progress review, a former client calls you needing immediate help.

The client, a marketing vice-president of a major pharmaceutical firm, is working on a business plan for a new revolutionary product. The client quickly explains that their researchers have developed eyedrops which completely eliminate nearsightedness in 60% of the cases (the cases caused by eye strain rather than irregularly shaped eye lenses) if the drops are used twice a day.

Problem:

The client has been working on a business plan but is having a difficult time with one piece of information. The client needs a directional estimate of the retail price they should set for the drops so that he can complete the business plan. How would you help the client structure his thinking on the price and what is your back-of-the-envelope estimate on the price that he should use in the business plan?

Solution:

One rough cut pricing analysis would determine the market price for the product that is being replaced...in this case, eyeglasses or contact lenses. For example, if eyeglasses cost \$120 and last on average 2 years, then a two-year supply of drops could be sold for \$120.

A more advanced analysis might determine that eyedrops are simple to use and completely trouble-free so that they should replace the most expensive option including all the costs associated with that option. For example, this may include \$100 per year in optometrist fees, \$180 in contact lenses (\$120 per pair plus on average each user loses on lens in a year), and \$25 in contact lens cleaning solutions and other supplies, for a grand total of \$305. Using this example, the retail price of the one year supply of drops should sell for \$305.

The most advanced issue trees will include the fact that this new product is actually much better than the alternatives, issues of dynamic pricing strategies (e.g. start high and reduce over time to best understand elasticities), and pricing so that marginal revenue equals marginal cost.

Problem:

After talking through the pricing issue, you agree with the client that the price of the drops should be roughly \$200 per year. Because you have been so helpful, the client wants to discuss one more issue.

You look at your watch and determine that you have precisely 10 more minutes before you absolutely must leave for your progress review. The client explains that he needs to complete his baseline business plan within an hour so that he can share it with the management committee later that afternoon. He would like you to help him produce a ballpark estimate of the market for

the product. Specifically, what dollar level of sales might he be able to expect per year in the long run in the US market?

Solution:

Because you have already estimated a reasonable price, you must now estimate the number of yearly supplies that the client can expect to sell in the US. One possible organizing structure (with estimates) is:

Estimate the number of people in the US	250 million
Estimate the percentage of (1) using corrective eyewear	20%
Estimate the percentage of (2) that are nearsighted	70%
Use the client's figure for the percentage of (3) that can be helped	60%
Estimate the percentage of people that will adopt the new product	50%
Put it all together: (250 million)(.2)(.7)(.6)(.5) =	10.5 million people
Multiply by the price per unit (10.5 million)(\$200 per unit) =	\$2.1 billion

NOTE: this assumes a proprietary product with no competition. If a competitor is assumed, market share must also be considered.

HMO Profitability (McKinsey)

Background on HMOs:

An HMO is a form of health insurance in which customers pay a fixed monthly fee for coverage which does not change based on the quantity of services provided. Often times, customer do pay a nominal (\$5 or \$10) co-payment when they use the services of the HMO.

In return for this fixed payment arrangement, customer of HMOs must select physicians and hospitals who are on a pre-approved list, as determined by the HMO organization. The HMO organization then contracts with physicians and hospitals to provide services to the customers at an agreed-upon price.

Each party receives value from the type of arrangement:

Physicians and hospitals get guaranteed business when their customers need service

Customers get a lower price for their health care

The HMO organization makes money on the difference between what the customers pay and what the physicians/hospitals charge

Background:

McKinsey is working for a large insurance client who owns seven HMOs in several different geographic markets throughout the country. (These HMOs are of the type where they contract with physicians/hospitals for their services, rather than having these professionals on their payroll, like the Kaiser HMO model). Six of the seven HMOs are currently profitable, however, on market - Purgatory, TX - is losing over \$4 million per year.

Your client is particularly concerned about their image as a player in HMOs, given upcoming health care reform. They believe it is critical to have profitable HMO operations in every HMO market, and are therefore very worried about Purgatory dragging down earning of their overall HMO operation.

They know that the medical costs of Purgatory are higher than the competition in this market, but have not been able to reduce those costs given the small scale of the operation. Large scale is typically the best way to negotiate lower costs with physicians and hospitals, thereby lowering medical costs, which are the bulk (about 85%) of any HMOs cost base. The remainder of the cost is S, G, & A. Your client is currently one of the smallest players in the market. Given this dire situation, they have asked McKinsey to help them determine how to handle the Purgatory market.

Question:

What key issues would you want to probe to begin to address the issue of what to do in the Purgatory market? Develop an outline of the areas you would like to learn more about and the specific key questions you would like answered about each area.

Solution:

Since costs cannot be reduced given your client's current scale, you may first want to determine if there are opportunities to generate increased revenue to cover your cost base. To do this you may use a variety of frameworks. One useful framework may be the 4 P's. Using this framework as a guide, you can develop a comprehensive set of questions to better understand the existing revenue improvement opportunity.

Product – How do your client's product features compare to that of competitors, e.g. hospitals and physicians in the network, types of illnesses covered? Which of these features matter most to the consumer?

Price – How does your client's pricing compare to that of competitors? If it is higher, do product features support this higher price? How price sensitive is the consumer?

Promotion – Is your client developing enough demand pull by using advertising and promotion?

Place – How productive are your client's sales channels versus that of competitors?

Advanced solutions will first clarify the extent of the cost problem. Specifically, if market level prices are below the client's marginal cost - which is indeed the case - selling more product at competitive price levels will only further damage profitability in the short term. In this case, the pricing lever should be the focus of further analysis.

Background:

More facts about Purgatory – After some fact finding, you discover a number of key issues regarding the Purgatory HMO market and your client's position.

Product:

All products in the market have comparable features, e.g. contract with same hospitals and physicians, offer similar coverages. Your client is unlikely to be able to develop a product feature that cannot be quickly copied by competitors.

Price:

HMO consumers are very price sensitive.

Your client's prices are slightly higher than that of market leaders.

Promotion:

Your client does very little promotion, however, the effectiveness of spending on promotion has not been proven.

Place:

There are two ways to sell HMO products – through independent sales agents and a direct salesforce. Your client does not have a direct salesforce. However, a quick calculation has indicated that until the product is profitable on a marginal cost basis, adding a direct salesforce will only exacerbate the current profitability problem short term.

Question:

Given the constant talk regarding healthcare reform, your client is desperate for an early clue as to what you think they should do in Purgatory. Their primary objective is to have profitable

HMO operations to report to industry analysts, therefore the losses in Purgatory must be addressed.

In response to their needs, you must develop a hypothesis for what you believe the client should do in this market based on the facts you now have. In addition, you must identify the key questions that must be addressed to confirm or refute your hypotheses. Furthermore, to make them comfortable with how you will proceed, you must give them a sense of the types of analyses you will do to further address your outstanding questions.

Solution:

A potential range of answers exists. The key here is logical support for the selected hypothesis based on the few facts that are available.

The bottom line for relatively small HMOs in markets such as Purgatory is that they are much like any start-up business, expected to consume cash versus to make a profit for a period of time before a significant sale is reached. This is because medical costs – the key component of an HMO's cost – are inversely proportional to scale, e.g. a large HMO can negotiate very low rates with physicians and hospitals because their size provides them with market power. However, to gain membership in an HMO, prices must be competitive. Therefore, in the early years of an HMO, losses should be expected due to the need for market level pricing concurrently with higher than competitive cost.

Additional Questions (With abbreviated solutions)

- **Midwest Bank (BCG):** You have been asked by the President of a Midwest bank to see if PC-based or online banking is something that his firm should pursue. His bank is in 3 states and he has #2 market-share. He is skeptical and does not think that he can generate much profit because his competition does not charge for their services, yet there are fixed costs in setting up such an endeavor. However, he is concerned because the larger east and west coast banks are entering the market and offering online banking. What should he do?

Definitely 3 Cs: After a series of questions, I discovered the nature of the customer segment that such a service would target (i.e.: families and individuals with a lot of financial transactions that would be find value with the convenience of at home banking). I had to do a quick market sizing brain teaser (i.e.: 100 mm households, 30% with PCs, 10% use PCs for more than email, games and word processing, ec.) to realize that the products purchased by the few customers who would tend to use online banking provided the majority of the profits for a bank (i.e., sort of like an 80-20 Pareto rule). The fixed costs of launching the project were found to be somewhat small. I ended up recommending that the bank should launch an online banking service because of the need to retain the high profit contribution customers.

- **Tiring Company (Mitchell Madison):** Your client is a tire manufacturer. How do you market their tires? The product was not any different from competitors, and the company did not have competitive advantages.

Seemed to be looking for customer segmentation: Price Sensitive and Price Insensitive. So how do you sell this product to both consumers?

Do you charge the price that the sensitive customer will pay?

But then you're loosing out on the revenue the insensitive customer would have provided.

Option: mail coupons out. the price sensitive customer will look in circulars and use it. the insensitive will not sift through papers. Will go in and pay the full price.

Other ideas:

- Market hard to retailers as many consumers ask for recommendations.
- Educate consumers on the need to change their tire every x miles or months.
- Could add additional services, i.e. someone come to house to change tires, free oil change (must work with retailers to do this)
- Competing with Goodyear who has strong brand equity. Do we do a blimp? Or, like Dunlop, tennis balls?
- Customers will likely not understand any competitive advantage we have
- Pricing will have to be competitive with other tire companies
- Other customer segments: those who only buy Goodyear, those who routinely change tires, those who buy recycled tires
- Would we want to sell to car dealers? Would likely have to have contract with one and that would give them a lot of power over us and we would be dependant on their sales

Other Answer: The tire was on par with competitors and my company was not a big name in the market. They seemed to want me to focus on efficiency of spending advertising dollars. Especially on targeting the right customer segments by utilizing something like car purchasing and demographic data to determine who might be buying replacement tires.

- **Belco Bloopers (PriceWaterhouse Coopers):** Case was based on Bellco. I had to read a two-page case write-up and answer 3 questions. It was an issue of strategic options for a regional

telephone company (still under the protection of government regulation) to go pursue investments into video dial tone technology or not, given the continuous entrants into that market. (, unknown date)

This was a case with many possible approaches. The key was to identify what were the options available to the company and what information would be needed in order to make a good decision. Porter's 5 Forces is good here. Also mention the role of government and what might happen with deregulation. With any investment, NPV must be determined. Also could pursue joint venture or acquisitions. As long as the argument was reasonable, you could make the argument that it was a viable option (including doing nothing!)

- Anderson Entrepreneur: Think of a business that you could start at the Anderson School (i.e., catering to students/faculty at Anderson). Walk me through the analysis of starting that business. (Unknown company, 1999)

My idea was to start a company that provided video of Anderson student interviews for recruiters on the web. The interviews would be conducted by a licensed, regulated third-party like an ETS type organization. The interview could consist of resume, fit and case questions which would be video-recorded by the company. The company would put the video on the web, and charge consulting (and other) firms a fixed fee to access the site. The key benefit is that it would eliminate the need for first round interviews. I tried to calculate how much value would accrue to the consulting firms (e.g., 4 interviews at an average billing rate of \$250/hour times 8 hours) to drive my pricing. I also tried to gauge acceptance from the key stakeholders (students, CMC, recruiters)

- Cruise Choice: A company is considering purchasing one of two cruise lines. "A" operates in the Mediterranean and has an initial cost of \$25 million, while "B" operates in the Caribbean and has an initial cost of \$50 million. Both lines are profitable, and the company has an ROA of 20%. Which one would you choose? How would you start your analysis? What factors do you need to consider?

Factors/Issues to consider:

- What is the goal/motive for purchase (diversification, extension of existing business line, profit, etc.)?
- What are any potential synergies or core competencies that the company can leverage to this business?
- Are there environmental factors, e.g., political, international, economic such as inflation, exchange rates, tax rates, demand cycles.
- What is each cruise line's useful life? (Assume 10 years.)

Assume all of the above does not significantly impact your analysis and go with the choice that will yield the highest NPV. (Assume tax rate is 60% for "A" and 40% for "B".)

Choices:

1. Do nothing (NPV=0)
2. Buy "A" (Mediterranean); $NPV = PV(\text{Operating Revenues}) - PV(\text{Operating Costs})$

Components of Operation Revenues

- Passengers
 - 100K per year
 - Avg. fare=\$500 per passenger
- Annual Revenue=\$50M

Components of Operation Costs

- Fuel=\$1M

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

- Labor=\$2M
- Food=\$40.8M
- Docking=\$.15M
- Annual Cost=\$43.95M
- Annual Profit=\$6.05M

3. Buy “B” (Caribbean); NPV = PV(Operating Revenues – PV(Operating Costs))
 Components of Operating Revenues

- Passengers
 - 100K per year
 - Avg. fare=\$500/pasenger

Annual Revenue=\$50M

Components of Operating Costs

- Fuel=\$500K
- Labor=\$8M
- Food=\$20.4M
- Docking=\$.75K
- Annual Cost=\$28.975M
- Annual Profit=\$21.025M

RESULTS

	1. Don't Buy	2. Buy “A”	3. Buy “B”
Profits (EBIT)		\$6.05M	\$21.025M
Tax Rate		60%	40%
After Tax Profit		\$2.4M	\$12.6M
PV @20% over 10 Years		\$10M	\$52.8M
Initial Cost		(\$25M)	(\$50M)
NPV	0	(\$15M)	\$2.8M

Choose “B”

- Regional Construction: An overseas construction firm wants to expand by establishing a presence in a growing U.S. regional market. What factors should it consider? How should it go about doing this? What factors are critical for its success?

Before answering this market entry question, the interviewee should set up a basic framework to use as a guide to uncover the relevant issues. The following is an example of one such framework.

Company:

1. What are its motives for entering this market?
2. What are the firm’s distinct strengths/core competencies it can leverage to succeed (e.g., proprietary technology, low-cost production, non-unionized labor)?
3. Can it fund diversification through a joint venture, acquisition, or build the operation?
4. Will the company have access to suppliers for inbound and outbound logistics (raw materials for manufacturing and distribution channels of finished goods)? Or will it have to build its own channels?

Market:

1. How attractive is the U.S. market and can it withstand a new entry?
2. What are the reasons for the current growth and is it sustainable?
3. How is the market different from the others the company is in? What are the drivers of success in the U.S. market, e.g., price, quality, delivery, brand equity, or existing relationships?
4. Are there any barriers to entry, e.g., economies of scale or scope, product differentiation, government or legal barriers, retaliation by existing firms, etc.?

Competition:

1. Who are the major competitors in the market? What are their strengths & weaknesses?
2. Are more competitors expected to enter the market? Retaliation by existing firms?
3. What control over suppliers and other resources does the competition have?
4. How does your firm compare to competitors in the US market?

Customers:

1. Do we know who the main customers are, e.g., private real estate developers, end users, or the government?
2. Have customer's preferences changed? Is there strong brand loyalty?
3. What do customer's place a premium on? What is price elasticity?

- **Fire Flyer:** A large commercial airline is in the process of evaluating the merits of its frequent flyer program. How would you determine the value of this program?
 - The value of this program is the benefits minus the costs.
 - Benefits can be determined by finding out (a) how many clients switch due to frequent flyer incentives and (b) how much do these customers pay for a ticket when they do so. (Ways to determine this additional revenue include marketing research, customer questionnaires, or comparing flight booking trends before the program was offered to the number of bookings during the flyer program.)
 - The cost is determined by demand side factors such as most traveled seasons or days of the week, most traveled destinations, demographic characteristics of those who redeem miles, and segmenting the customer base into business and leisure given their different price elasticities.
 - The cost is also determined by supply side drivers such as the number of frequent flyer miles given away or the number of miles redeemed. (This information should be readily available to the airline through the ticket coding on the CRS that books airline flights.)
 - The cost is also driven by incremental administrative, logistical, in-flight, advertising and promotion costs of the program.
 - A good way to calculate the cost would be \$ per frequent flyer passenger mile or mile redeemed.
 - You may suggest ways to reduce or limit these costs by improving operations of the program or limiting the window of opportunities during which passengers can redeem miles.
- **Book Bomber:** You are a new associate at McKinsey and get a call from a partner that is forming a team to help a major book publisher explore strategic opportunities and risks. She asks if you are available for lunch today. If so, she would like to discuss the industry over lunch. You explain to her that you do not have experience in the industry but would enjoy having lunch with her today. You do not want to disappoint the partner, but she has set high

expectations for your lunch conversation. How would you structure your thought process for thinking through the strategy of the book publisher? What are your experiences with books which will help you think through the current issues in book publishing? What types of strategies might help the client?

The first framework that come to mind for thinking through a strategy case is the “Forces at Work” (Porter) framework. The students should be able to think through the elements of the framework based on their experiences:

- Increasing buyer power has been increasing due to the movement away from the corner bookstore toward the large chains (e.g. Barnes and Noble) that give discounts to readers off the publishers price.
- Increasing substitutes caused by video games, videos, cable systems, books on tape, and video on demand.
- Increasing competition between publishers caused by reduced margins (buyer power) and saturated market (increasing substitutes) and proliferation of titles. Also no real branding among publishers (who published the last book that you read?).
- Increasing competition leading to higher advances to well known authors (millions of dollars in many cases).

Advanced answers from students might discuss what can be done to help the industry. For example:

- Become a market leader by announcing new terms and conditions for the large book retailers. If the other major players in the industry follow the lead, the industry may become more profitable as a whole. If not, the client may need to move back to the old terms in the industry.
 - Focus on the books or types of books that have an expected positive NPV. The proliferation of books probably has caused many unprofitable titles.
 - Forward integrate into bookstores.
- Travel Travails: An Israeli travel agent has been extremely successful. His primary source of revenue is customers who fly to and from the U.S. He manages to fill up over two planeloads on a daily basis. Given his success, he is considering buying an aircraft and flying the U.S.-Tel Aviv route himself. What advice would you give him?
 - Find the source of your client’s success. In this case he is attracting customers due to his own promotion and reputation. He will probably continue to do so if he buys his own aircraft.
 - Assess your client’s complete understanding of the industry and venture he is considering. He should clarify issues such as hub space availability, international air traffic regulations, and other specifics of the industry.
 - Assess your client’s capital resources. Does he have the funds to support this venture?
 - Analyze the current state of this segment of the airline market. As a travel agent, he knows the pulse of the consumer fairly well. Is the market in a growth trend? Who are the dominant competitors and what would you anticipate their reaction to be? If the route is very busy, it is probably very lucrative for other airlines.
 - Competitor’s reaction: The major operator happens to be El Al which has deep pockets. If your client enters the industry he would probably trigger a price war. If not, other small operators would follow and El Al would begin to lose an important source of profits.

- The only way your client could fight this war would be to differentiate himself from El Al and the other airlines by charging a lower price. However, El Al would match any such move and your client would be forced out of business.
- Seems the best recommendation would be not to enter the market as a small operator.
- Baby Airline: How would you compare the airline industry with the baby food industry? In which would you invest your own money?
 - The industries could be compared by going through some version of Porter's Five Forces or 3 C's analysis. Consider the following:
 - Markets to determine current drivers of success or change
 - Overall profitability trend
 - Nature of the competition
 - Control of suppliers and distributors
 - Existence of substitutes
 - Customers and how they are segmented and what are their preferences
 - Competition in the airline industry is intense.
 - Fixed costs are high and competitors keep cutting prices which results in low profit margins.
 - Microeconomic arguments indicate that airlines will keep cutting prices as long as they are covering variable costs. Since fixed costs are high and undoubtedly financed with debt, these companies can end up defaulting on interest payments.
 - Customers are segmented into price inelastic business travelers and very price sensitive leisure travelers.
 - Brand equity and loyalty are relatively low.
 - On the other hand, the baby food industry is less competitive.
 - There are only two or three large players who do not indulge in cutthroat pricing; thus, margins are higher than in the airline industry.
 - Products are well-differentiated with customers being quality conscious and willing to pay a premium for quality.
 - Brand loyalty is high.
 - As an investment decision, the baby food industry is better than the airlines due to higher profit potential.
- Acquisition Target: A turnaround specialist has retained your services to help her evaluate a medium-sized lumber company as a potential acquisition. How would you determine whether the acquisition was worthwhile?
 - First ask what are her specific motives for acquiring the company? For example, is she looking to sell off pieces of a failing company to competitors who could run it better or is she looking for a well-run, profitable business to run?
 - Because most of the company's products are sold to the construction industry, it faces cyclical demand.
 - Most of the company's production facilities are fully depreciated and somewhat antiquated.
 - Some reduction in the workforce will be necessary to achieve levels of efficiency on par with the best in the industry.
 - The company has extensive holdings of forests with a historical ROI for these assets of 16%. However, this is less than the company's cost of capital of 18%. If the company

were acquired, some of the acreage of forests could be sold to 1) provide cash to fund capital improvements and 2) improve ROA.

- The potential exists to appease environmentalists and improve operating efficiencies by increasing selectivity in tree cutting and upgrading the process machinery to peel trees more efficiently.
- Conclusion: Ultimately, the decision of whether or not to acquire the company should be based on a conservative assessment of 1) market potential 2) the potential to improve the company's operations, and 3) predicted competitor's reaction. (Perform a market, company, customer, and competitor analysis). Because of the cyclical nature of the industry, it is important to examine the downside and upside scenarios. Sales below projections will be a problem, but sales growth higher than expected may also be a problem if the company is short on working capital and operating at full capacity.
- Micro Subsidiary: A large microelectronics company is considering participating in a microchip project that will receive 50% of its funding from the government. The company currently uses millions of dollars worth of microelectronics each year with the cost steadily increasing. Although the company already has a small microchip subsidiary, its capacity is small and technology is relatively old. It is interested in developing application specific integrated circuits (ASICs).

What are the key considerations to making this decision? What factors are important for success in the ASIC business? Should the company get involved and with whom?

- *What is an ASIC, when are they used, and what are they used for?* An ASIC combines the functions of many semiconductor components on one chip, decreasing the size and weight and increasing speed and reliability. Assembly costs are reduced, but development costs are higher.
- *What is the market outlook for the product (ASIC)?* High growth, currently about 15% of integrated circuits are ASICs and this figure is expected to rise to 35% in the next 10 years.
- *Who are the major customers and what are the drivers of their preferences?* Two key customer segments are entertainment electronics and automotive applications.
- *How is the industry structured, how competitive is it?* There are about 150 firms producing ASICs of which only a handful are of any substantial size.
- *Who are the key competitors and what are their main business lines?* There is currently only one producer of ASICs in a similar line of business but this competitor has much more sophisticated production capabilities.
- *Would it be cheaper or is it possible to outsource this production?*
- *Are there already joint ventures or strategic alliances that exist?* Some strong alliances exist in the industry and the possibility of converting old production facilities into ASIC facilities may lead to great over-capacity or market saturation when the next generation of chips takes over.
- *What is the product life cycle of the ASIC?*
- *Are there significant barriers to entry?* What are the expected costs of entry? A state of the art production facility large enough to meet the company's needs would cost around \$250 million. In addition, considerable effort would be required to find the staff with suitable expertise. Also, firms whose core business was semiconductors would have significant technology and R&D advantages.

- *How is the ASIC business different from that of standard integrated circuits with regards to production volumes and fixed and variable cost?* Typical ASIC production volumes are much lower so there exists a need to find some way to reduce costs. Explore the possibilities of shorter production/design cycles and interchangeable parts.
- *What are your client's current purchasing habits?* Currently purchases nearly all of its microelectronics through one subcontractor who delivers high value.
- *Do potential joint venture partners exist?*
- **Top Dog:** You have been hired by a food processing company that recently introduced a new hot dog to the market. Sales in the first two weeks have far exceeded the marketing department's projections. Your client thinks he may need to add more capacity. What advice would you give him?

The following are relevant questions about the product and market you should want to ask your client regarding consumer's buying preferences, competitive break-up, sales and promotions, etc.

- Is your hot dog product significantly different from others on the market? (fat free, cheese filled, etc). In this case, the answer is NO.
- Does your product appeal to a specific market niche that others do not? (kosher, sports fans, specific ethnic recipe, etc). In this case, the answer is NO.
- Is your hotdog product priced significantly lower than other products out there? In this case, the answer is NO.
- Have you been offering grocers and distributors a special introductory price? In this case, the answer is YES.

It appears that the client's initial sales surge has been influenced by one-time buyers attracted to the low price promotion. Follow-up questions might include:

- How often do most grocers re-order hot dogs? In this case, 2 times/week
- Has your client received any re-orders? In this case, the answer is NO.

At this point you should ask your client to re-evaluate his projections. Hot dogs are somewhat of a commodity product that compete primarily on price. There are numerous well-established firms in the industry with no one firm holding a large market share.

- **Grocery List:** A regional chain of grocery stores currently receives its stock on a decentralized basis; i.e., each store deals directly with the various suppliers. The president of the chain is wondering whether it would be better if they established a centralized warehouse through which all supplies would be delivered and then disbursed by company trucks. What are the key considerations to make in this decision?

For this case, you need to perform a hard (financial) and soft (impact on organizational effectiveness) analysis of this decision.

- Financial: You need to determine if the savings from bulk purchasing would more than compensate for the cost of:
 - Building and maintaining the warehouse
 - Employing additional personnel and trucks
 - Capital tied up in inventory for the additional period
 - Do the stores buy similar products (i.e., do purchasing synergies exist)?
 - Will delivery frequency to the stores be better or worse? Consider the costs of stockout and the need for fresh produce.

- Will the stores prefer delivery direct from the supplier or from the warehouse? Consider the time tied up in order processing and the flexibility of delivery times and quantities.
- Have any of your competitors experimented with such operations and were the results successful?
- What impact will this switch have on your alliances/relationships with your suppliers? Will all of your employees support this decision given some potential long-standing relationships with suppliers?
- Will orders still be placed individually with payments done in a centralized office location?

Your solution will depend upon your interpretation of the financial and organizational trade-offs inherent in the two methods of delivery. To propose going to the new method, you need to establish not only that it will cost less, but also that all of the affected players can be persuaded to buy into it.

- Sweet Money: Aspartame is an artificial sweetener and the key ingredient in Nutra Sweet. For years Nutra Sweet had a monopoly in the artificial sweetener business, but in 1992 it was challenged by the Holland Sugar Company (HSC) in Europe. In 1994, HSC announced that it would compete with Nutra Sweet in the U.S. as well. Coke and Pepsi, the two principal buyers of Aspartame, immediately announced that they would buy from both HSC and Nutra Sweet. HSC took the Cola companies at their word and built an expensive plant in preparation to sell in the U.S. Yet the HSC sales never materialized – Coke and Pepsi both signed multi-year contracts with Nutra-Sweet. Why did they do this? What should HSC have done differently?
 - Coke and Pepsi had a dependable source of Aspartame at unchanging prices for many years.
 - Coke and Pepsi used the two suppliers against each other. The threat of HSC made Nutra Sweet offer multi-year deals to these two buyers at very low prices.
 - HSC was shut out because it did not obtain a specific written contract/order from both Coke and Pepsi guaranteeing purchase orders before it built its plant. Now its only hope for survival is to either identify other potential buyers of Aspartame to cover their fixed costs or try to sell off their facility to Nutra Sweet or some other willing buyer. HSC can also entertain the thought of pursuing legal recourse on Pepsi and Coke for damages.
- Airline Route Expansion: A major American airline is considering establishing new routes from Tokyo to several sites in the United States. Would you recommend this action to your client?
 - This case is different from the NY-Tokyo airline question because it deals with establishing new routes as opposed to acquiring existing ones.
 - As always, determine your client's motive for this business decision. What is your client's ability to fund this decision and how does it fit into his/her overall firm strategy?
 - This case requires a complete examination of the customers and the competition. You need to assess if there is a demand for these routes to support your decision and what carriers already exist in these markets and how they are operating.
 - Customers consist of both business and leisure travelers. While business travel from Japan to the U.S. has been declining at about 25% over the last year, leisure travel has

increased at a faster rate. It is expected that leisure travelers will continue to grow at a faster rate than business travelers do. Currently, about 50% of all Japanese travelers to the U.S. are leisure travelers.

- Examine what the market is like and if this trend is sustainable in the short and long term. Can the market withstand another entrant? Identify any anti-trust or regulatory statutes that would impede the establishment of these routes. What issues need to be considered in the Japanese market/government?
 - Look at what competition presently exists in these markets and what competitor reactions will be.
 - As it turns out, it is extremely expensive to buy gates at Tokyo's crowded airport. As a result, competition will not only come from other airlines at Tokyo airport, but also from a new airport that is being built in Osaka.
 - Furthermore, Osaka is expected to attract a very high percentage of the leisure travelers. It is very inconvenient for leisure travelers to fly out of Tokyo, where the prices tend to be higher. It is estimated that once the Osaka airport is built, leisure travelers at Tokyo could decrease by 25-30%.
 - If your client continues with his/her plans to buy gates in Tokyo, s/he will find it difficult to attract the growing number of leisure travelers needed for their new routes to the U.S. It probably makes more sense to buy gates in Osaka instead.
 - Another insight is the recognition that Osaka will increase the number of airport gates in Japan. The intense demand for gates in Tokyo will decrease with the greater supply of gates in Osaka. While this does not change the benefits of buying gates in Osaka, it may create new, cheaper opportunities to buy gate space in Tokyo in the future to establish new business traveler routes to the U.S.
 - Once you have a good idea of what the demand will be like, analyze the various cost components of this business decision to determine whether or not you will have enough revenue to cover your cost in both the short and long terms and what your margins will be like.
- Role playing (Deloitte): You are a consultant asked to visit a client and identify the problem by asking questions. Afterwards, we will pretend that you are back at the Deloitte office and reporting to the senior managers regarding what you found and your recommendations.

Case Question: Your client is a manufacturer of plumbing products and is not making money. Why? (Declining Profitability Question)

Hard to say of course, but the framework is Revenue minus Costs.

Some information given to me: many competitors, low margin business, but your firm is doing worse,

Looking for:

- the fact there are 3000 products and 200 product lines.
- the fact that in the manufacturing process, it takes a long time to switch from one product line to another
- the fact the finance did a study that 600 products are sold for under cost
- the fact that canceling lines would upset distributors (who are external but exclusive) who want whole lines
- the fact the it critical to understand what is profitable by accounting standards versus hurdle rate standards

- Starman (Deloitte): You have been asked by the CEO of Starman, a heavy construction equipment manufacturer, to help them with some short and long term business issues. The short term goal is to increase profits, which they have seen steadily erode. Their long term goal is to remain a viable player in a competitive industry. Here are some facts that are given to you:

Starman is #1 of 3 of the largest manufacturers in the US. However, the other 2 competitors have grown faster than Starman has in the last 10 years. The industry is \$15 BB and is seeing a CAGR of 7%. -Demand for Starman's products has seen steady growth in the last 25 years at about 5-10% per year. Currently, Starman has 12% market share. (Deloitte Consulting, Winter 1999, for summer associate position)

Approach I took:

- I broke it down in terms of short and long term needs. I spent a good 25 minutes gathering information regarding the items affecting profitability (i.e.: revenue and costs) and the positioning of the company to its customers relative to the competition. I also asked questions regarding the value chain and where Starman has relative strengths and weaknesses versus the competition.
 - There seemed to be many places one could go with this case (i.e., I discovered that Starman was not as integrated with their suppliers as their competition and that they had operating expenses that drove up their variable costs. As a result, their operating costs were increasing at a greater rate than that of the competition).
 - It seemed that there were no right answers, as long as you listened carefully to the "client" and asked intelligent, logical questions that allowed you to structure the problem to identify root causes. From the problem identification, you could then make some recommendations regarding what additional information is needed and/or what corrective measures might be considered.
- Music Magic (BCG): Two large entertainment (specifically music) conglomerates merge. Each own real estate. Total assets worth 900 million dollars. How does one deal with the real estate function within the new firm (integration). The overarching objective is to save money now!

Some points:

Consolidation: pretty basic points on duplicate needs, fixed costs, etc.

Key: Return on assets. Do they have good return on assets and what do they do with them?

His point, the WACOC for a firm is high because it is volatile and but low for lease because it is stable, so in most cases, sell the land and lease long term to use the capital for better use.

Both firms do similar work, one is headquartered in the US and one in the Netherlands are has a presence in many other countries. Local presence is important - start by looking at how to integrate the headquarters.

Options:

- keep both
- close one location and keep another
- close both and get a new one

Issues to consider:

strategy - where is it important for them to have the most presence?

people - where is the management from, are they willing to relocate, what additional costs would relocation result in?

Do NPV analysis of the above 3 options.

- **Consumer Finance (BCG):** Your client is the CEO of a consumer finance bank that specializes in at-risk credit lending. In other words, lending to consumers who would have difficulty obtaining loans elsewhere. Several years ago the bank diversified into mass marketing credit cards. This division is losing revenue. Why? (BCG, Winter 1999, for summer associate position)
 - 2 answers:
 - Their core competency is in lending to at-risk clients, not the mass market. 60% of their profits are derived from 10% of the volume, at-risk customers. They should focus on this market.
 - Revenue is made of price and quantity. Price is free and quantity is dependant upon their interest rate level. When you dig deeper, the bank has been losing customers after introductory offers run out. There are no switching cost. Digging deeper, the bank is keeping their interest rate the same, while their competitors are lowering theirs.
- **SKU Jumble (PriceWaterhouse Coopers):** Detailed operations case with 2.5 pages of text. Like a mini-version of a full Harvard business school case on operations. Talked about manufacturing operations and supply chain issues and marketing issues such as demand forecasting, product mix/breadth of product lines. This particular case described a manufacturer of fireplace inserts having problems relating manufacturing based on too many SKUs in the product mix, too many conflicting demands placed on the factory (quality vs. lead time vs. cost), too many non-value added operations in their order fulfillment process and an unclear management hierarchy which made it difficult to make and implement decisions. The ideal answer to this case will also address the HR type issues involved, for example one of the plant foremen was very close to retiring and therefore reluctant to make big changes.
Frameworks used: Basic financial ratios used in operations like COGS, fixed operating expense ratio, var. manufacturing expense ratio, fixed assets ratio etc. Economic / breakeven analysis, EOQ model from operations.
General Tips: Expect a longish case, part of their tactic in the interview situation is to make you feel under pressure by saying "don't worry about me" after they give you case and then trying to distract you by looking at you at glaring at their watch etc. Idea is to make you feel like there is so much work in front of you that you can't possible get it done in the 20 minutes they have defined for you. Best advice on this is to totally ignore the interviewer once you have clarified the time limit for studying the mini-case and any questions. Then try to read and get your presentation together in less time than what they say you should take (ie, 18 minutes instead of 20).
- **Opera House:** The Royal Opera Company has been facing declining profits over the past few years. Why?
 - Has there been a drop in attendance? *No, attendance has been fairly constant, and it may have actually increased a little bit.*
 - Have revenues declined? *No.*
 - I am assuming there has been an increase in costs. Have there been any major changes in the cost drivers? *Well, what do you think are the main costs?*

- Salaries (players and administrative personnel), fixed overhead. *How would you determine where the cost problem is?*
- First, I would want to see if there is a change in the pattern of current vs. past spending. Second, I would want to benchmark the Royal Opera Company with other similar companies. *Actually, the opera company has been trying to meet public demand for variety by putting on more different shows per season.*
- I assume that there is a high fixed-cost with developing an opera rehearsal time, sets, etc. and a relatively lower variable cost with each production? *Yes...what would you suggest?*
- The Royal Opera could cut costs by coordinating with their marketing department and identifying the big demand shows and offer fewer operas per season. They might also maintain their variety by sharing productions with other opera companies. *So, the Royal Opera could send some actors to, say, the Sydney Opera and get some actors in return for several productions.*
- Yes. *But what if the actors don't want to spend a great deal of time on the road? How would you handle that issue?*

I present the travel as a prestigious opportunity to increase exposure on the international circuit. If necessary, I would divide the company into traveling and permanent groups.

- **Big 6:** You have been called in by a Big 6 accounting firm that is experiencing declining profitability in its auditing operation. What actions would you take to help them improve profitability?
 - First determine whether the industry itself is in a state of declining profits or if just your client is losing money. If it is just your client, benchmark your client's operations against the competition to see what they are doing more successfully to profit. In this case, the entire industry is in a slump and competition is intense as firms fight to survive.
 - Remember profits are revenues minus costs. To improve profitability, your client needs to either increase revenue or reduce costs.
 - Increasing revenues would require increasing volume or price.
 - To increase volume, the client's marketing and promotions department must identify the current drivers of success in the industry. What do the customers or potential customers place a premium on (e.g., service, low-price, quality, reputation, etc.)? Determine if your client is providing the type of services the customers. Your client could increase volume by cutting prices but that would require cutting costs in order to sustain profitability.
 - Raising prices would increase revenues but your client would have to differentiate itself significantly or use promotional incentives. It also must consider that competitor reactions will be strong and prompt given the present nature of the industry.
 - Reducing costs requires examining the cost structure of the firm. Fixed costs are offices, equipment, and personnel. Variable costs are general consumables, travel, etc. It turns out that the single largest component of costs is personnel. Reducing personnel cost would imply either cutting salaries, cutting staff, or raising staff productivity. The best course of action is probably to try to increase productivity and resort to other alternatives later.

- To increase staff productivity, the client could ask the staff to work longer hours (must provide incentives).
- The client could also review the layers of management in the firm to identify areas of excess waste. For example, the partner-to-associate ratio may be optimized, which may result in increased productivity per labor dollars.
- **Software Stumble:** This case is about a system software house. Company Z develops customized applications for a large variety of customers in very different industries. Recently, however, top management has found out that the results of Company Z are well below industry averages. You are brought in to diagnose the current situation, identify key issues, and recommend possible solutions to help bring the company to a higher level of profitability. The following information should be made available in response to questions asked by the candidate:

Last year's P&L	(% of sales)
Raw material	70%
Labor	20%
Distributed Overhead	10%
SG&A	15%
Profit	-15%

Also, the raw material is a commodity petrochemical and at least two of the other companies in the industry are making moderate profits.

Avoid getting bogged down in the following areas:

- Dropping the product line – this is not possible because hoses are necessary for boiler sales
- Raw material prices – they are the same as everyone else's
- Allocation of overhead – no cash savings and offers little potential
- SG&A: standard industry fee paid for independent installers

Examine the possibilities of:

- Contracting out for the hoses – apparently not possible
- Scale economies – client is big enough to achieve scale production
- Labor costs – wage rates and productivity are average for the industry
- Raw materials purchasing practices – materials are purchased through long term contracts with the price based on the spot market minus a cash discount

More relevant questions:

- How is our product engineering operation wired into the marketplace? – There is little contact between the engineering and marketing organizations.
- What kind of feedback are we receiving from our sales force? – Customers are delighted with our hoses but don't require all the product features.
- Are there other areas in the company where similar problems exist?

The best answers, following a logical progression, should stumble upon the actual answer: the product has been overdesigned, requiring excess raw material.

- **Mapping Measures:** Your client, company C, sells maps to schools along with two other major companies. Company A sells its maps at a 10% premium and still maintains the highest market share, while company B follows the same pricing structure as your client and has captured the same market share as your client. What should your client, company C, do to increase its share and profitability?

Overall issues:

- Is there any product differentiation? No. Even company A's products are similar to your client's.
- Who is the customer? Principals and superintendents of schools.
- Does company A offer any complimentary products? No
- How are customers and orders handled? Salespeople visit customers and if some maps need replacing, an order is placed.
- Is there a difference in the size of sales forces? Yes, company A has a larger one.
- What is the market area (local or national) and how many schools are in the market? Here, the interviewee is asked to estimate the number. Start with population, move to number of people who are "school age" and then estimate the number of schools.

Strategic Issues:

- To increase market share and/or profitability, you need to increase revenues or decrease costs.
 - To increase revenues, explore the demand function to see how to increase sales. What drives your customer's preferences? Is there any brand loyalty or are the maps commodity items?
 - To take sales and market share away from Company A, consider lowering prices, increasing the sales force, increasing promotional efforts, etc. One solution might be to set-up a toll-free number for customers to call in orders (keep in mind the potential effect on the sales force). Promotional efforts could include sending price schedules to customers stating lower prices compared to competitors.
 - Another way to increase revenues is to increase prices, but that would require demonstrating why your product is significantly superior to justify the premium. This is not a good approach given the undifferentiated nature of the product.
 - Finally, compare your cost structure to your competitors and explore ways to lower your fixed and variable costs, etc.
- **News Dues:** You have been hired by a newspaper publisher who has been experiencing declining readership and, as a result, declining profitability. What would you suggest she do?
 - First, if readership (demand for your product) is declining, you should determine whether your competitors are experiencing the same problem (is it an industry-wide concern or is it particular to the client). In this case, it turns out that all publishers share the same problem and that television is the main culprit.
 - To address this issue your client could do two things:
 - Study other markets where television is prevalent but newspaper readership is high (like Japan) and use any knowledge you can gain to promote readership in the U.S. Your client could share costs via newspaper publisher associations.
 - Explore the possibilities of phasing out of the newspaper industry and entering the television industry. This is highly improbable given the high costs of entry

but you could explore any competitive advantages you could leverage to that industry and the opportunity of a joint venture with an existing TV company.

- Second, if readership is down in the industry and your client still believes it can be profitable to stay in the industry, you need to utilize the marketing department to accurately determine customer preferences and tailor contents to them. Remember that any differentiation that is imitable will be quickly neutralized by competitors.
- Third, examine your different geographic market segments to see if margins and demand differs greatly. If there are markets that are clearly still prospering, maybe your client could focus target readership efforts to these more profitable areas.
- Fourth, build mechanisms to continually adapt to changing reader tastes. This could be accomplished by market studies, flexible and versatile staffs, etc.
- Fifth, your client could focus on cost reduction as a means of increasing profitability. Possibilities include consolidating operations and/or reengineering them. Consolidation would help in deriving economies of scale whereas re-engineering could identify and eliminate operational inefficiencies. Issues such as low capacity levels, changing input prices, and distribution and labor shift costs should all be explored. Lower cost could also lead to lower prices, which may stimulate demand.
- **Building Brouhaha:** Your client manufactures and sells 11 different building products such as concrete, lumber, and bricks, and is profitable but has been losing market share over the past few years. The company is presently second or third in the industry. What information would you need to gather to assess your client's problem and what recommendations would you make? Note: In the real interview, you spend the first 20 minutes acting like you are discussing the problem with your client and then the last 20 minutes back at the office debriefing your manager.

The following are some of the questions you might want to inquire about.

- What is the present state of the construction material market? Pretty good, the industry follows economic cycles and it is presently in an upswing.
- Who are the company's customers? Two different types of customers, large general contractors and little shops.
- What are the company's strengths or core competencies? The company competes on cost and high quality. It supposedly has a strong sales force and reputation for providing the best quality products.
- If market share is falling, does that mean sales have been falling? I don't know - here is all of our sales data manually entered on paper and stuffed into all these boxes. (This is one of their first hints as to part of the problem. It turns out that none of their sales recording systems and possibly accounting systems in general are automated)
- What is the management and corporate structure like? A new CEO came in a few years ago and presently all 11 divisions are operating as separate business entities. Managers in each business unit are compensated on how profitable they are. (Second hint, your client needs to consolidate its operations.)
- What is the company's present capacity level? Presently have excess capacity.
- If sales are down, what does this outstanding sales force of yours know about how your customer's preferences have changed? It appears there is a trend towards regional superstores that provide a variety of items with one-stop shopping. Your smaller competitors can compete better on this regional basis with better geographic

accessibility. It seems your competitors are meeting the customers changing needs but your client is not. The customers complain about poor service – your client is getting lazy and complacent. (Third hint, your marketing people should know the pulse of the customer and it appears they do not.)

- Have your cost increased overtime? I did a value chain analysis and after dragging me out for awhile, they finally conceded that there were no significant changes in either fixed or variable costs.

Conclusion/Recommendations:

- Need to work on their sales and other accounting systems and make them automated and more accurate and efficient. They claim that sales are down yet they may not be able to accurately quantify by how much or in which regions of their market.
- Need to consolidate the companies operations and create greater synergy among the 11 different business units. This way they can leverage each other's skills and have all of the managers' goals aligned. People would also be less myopic in the way they run their divisions and this may resolve some of their capacity problems. Possibly suggest a different compensation policy that rewards all managers if the firm's overall bottom line increases.
- Get marketing people to talk with the customer, suppliers, distributors, etc. to understand the recent trends in consumer preferences. Then get marketing people to coordinate with manufacturing and distribution people to put changes in marketing plan into action.
- Daft Drugs: A pharmaceutical manufacturing company has a problem. While it has what it believes are superior products and good distribution channels, its rivals consistently have a larger market share. For the past two years, the CEO of this company has spent three times the industry average on advertising. There has been blanket coverage on newspaper and television. Market research reveals that consumers show name recognition for most of the advertised products and the campaign is more successful than hoped; yet sales remain slow. You have been hired as a consultant to rectify the situation. How would you approach it?
 - This is a marketing case. Lead the candidate through analysis of the customer segments. Questions such as who are the primary and secondary customers of your pharmaceutical client.
 - The fact is that most pharmaceuticals are purchased by doctors and not by the general public. However, the company's advertising focuses on radio and TV, targeting the general population.
 - The company would be better off spending its advertising resources in journals that specifically target medical practitioners, for example.
- Airplane Assay: You are a consultant to the CEO of an airplane manufacturer. In the last couple of years you have gone from being number one in market share to number two. In addition, another company has announced that it will be entering the business and is presently tooling up its plan. As a consultant, what are the concerns your client might face, what additional information might you want, and what recommendations would you have?

As a consultant, you are concerned with three items:

 - The state of the airplane manufacturing industry (the market)
 - The reason the firm has lost market share
 - Methods for preventing the new entrant from stealing market share

- 1) The airplane industry's demand is a function of travel among two classes: business and leisure. Business travel increases as a result of globalization. Leisure travel increases with growth of middle and upper classes. Business travelers are primarily insensitive to price; leisure travelers are very price sensitive. The consultant should ask if there are any regulatory, economic, or other factors that may be drivers of future change in this industry.
- 2) If your client is losing market share, either the industry itself is shrinking (in this case it is not) or your client is losing sales to its competitors. You need to ask why they are losing sales – maybe their costs and/or prices are increasing compared to their competitors. Find out what are the drivers of success in this industry (i.e., what do the customers place a premium on: price, safety, brand equity, quality, etc.?)

Benchmark against existing competitors:

It turns out that the competitor's plane is cheaper to operate because it is more fuel-efficient. The consultant should ask whether the firm is interested in manufacturing more fuel-efficient planes. The answer would depend on the future of oil prices. It may be better to compete on the basis of price, safety and service.

- 3) Methods for preventing the new entrant from stealing market share:
 - Create barriers to entry such as low prices, control of resources, technology patents, locked-up distribution channels
 - Establish long-term contracts or strategic alliances with both customers and suppliers
 - Exploit high concern of purchasers for proven safety track records
 - Threaten to use excess capacity
- **Electronic Trouble:** You have been hired by a large electronics manufacturing company because it has been getting continual complaints from its customers about late delivery of products. How would you research the problem and what would you recommend?
 - It turns out your client presently does most of its business in the U.S. and Canada with minor international customers.
 - Your client has just made a huge capital investment by creating its main manufacturing facility in China and management is forced to stand by this investment decision. China was chosen (vs. the U.S.) because of lower labor costs.
 - When you examine their operational process, it turns out most of their processes are machine automated anyway.
 - Distribution channels/outbound logistics: It turns out your client transports its finished goods to the U.S. via ship as opposed to air freight or other means. This trip across the Pacific takes a minimum of 5 weeks. (So your client has deliberately added 5 weeks to its lead-time to save on labor cost although most of the operational processes are automated anyway!)
 - Solution: Explore other quicker means of getting the product to your customers. With regards to the large plant investment that management is forced to support, you have a few options. Explore new opportunities in the Asian market to take advantage of the plant's proximity. Also, if your client has the funding and is sure of the domestic demand, it should build a smaller plant in the U.S. to react quicker to U.S. customer needs. If your client does not have the financial backing, it should look into the

possibility of outsourcing some of the domestic manufacturing processes to independent contractors.

- When you analyze the customer's preferences, it turns out that there is a demand for only about 25 of your client's products in the marketplace. A review of your client's current product line reveals they are producing over 1000 different electronic products.
- All of the additional set-up times, machine run specifications, packaging and distribution of this over-extended product line is extremely costly in the absence of consumer demand.
- Solution: Make sure the manufacturing people are communicating with the marketing department so your client produces what the customer wants or needs. You should recommend that your client significantly scale down its product line.
- **Ill-equipped Equipment-maker:** A medical equipment manufacturer in the southeastern U.S. has called you because it feels its working capital requirements are much higher than those of its competitors are. As a consultant, how would you help solve your client's problem?
 - Start off by going through the list of items that may be increasing your client's working capital. (Recall from accounting that working capital is your current assets and includes things such as cash, marketable securities, receivable, and inventory). In this case, you will discover that your client's inventory levels are inordinately high.
 - The client's organization is made up of three divisions. The inventory problem can be traced to a division that was acquired by the client two years ago. This division manufactures equipment for arthroscopic surgery, namely capital equipment and blades (something like razors and razor blades, only more expensive).
 - It turns out the technology for this equipment has been changing rapidly and the rate of obsolescence of inventory is very high. Earlier sales forecasts had been overly optimistic and the client finds itself loaded with obsolete finished goods inventory.
 - As a corrective action, decide on the appropriate level of inventory by adjusting forecasts, getting an idea of manufacturing lead times, and determining customer expectations of order lead times.
 - After appropriate levels of inventory are determined, it turns out that the client has 2.5 years of capital equipment inventory that it does NOT need to carry since these items can be quickly manufactured after receiving the order. To help take this finished goods inventory off the books, finished goods could be dismantled and sold. Also, idled manufacturing capacity could be adapted to make other goods if the facilities are flexible enough.
- **Credit Union Problems:** You are a consultant whose services have been retained by a credit union that serves an army base and a number of rural communities in Montana. This business has been around for a long time. Its profits have been declining and it is losing market share to several new competitors. The credit union has a main office and 5 branches. You are being briefed that day at 9:00 a.m. by the President, who tells you that you will have a meeting with the CEO at 3pm to tell him the things you would look at. The President also tells you that he is planning to quit. What things would you want to know in order to quickly determine the problem areas in the company?

This question requires that you quickly find out what the important problem areas are for the credit union. Ask good, probing questions and move on if it is apparent that this is not a problem area.

Things to ask and tell the interviewer:

- Was this company profitable before?
- When did profits and market share begin declining?
- If profits are declining, are your costs increasing or is your revenue/demand decreasing or are you experiencing a combination of both?
- Benchmark against how your competitors are doing.
- Find out what factors make them successful, for example, when did they come into the market? Are they doing anything differently that they weren't doing before?
- Are there any new regulations that may have been introduced in the state of Montana that may have changed the way that credit unions must be run?
- How are the various branches performing? (You want to find out whether the whole company is doing poorly or just selected areas.)
- Does your client know who his customers really are and what they place a premium on (service, accessibility, cost, etc.)?

The problems with this company ended up being:

- First, the company had an extremely old cost accounting system that prevented them from knowing what their true costs were.
- Second, operations were a complete mess – in particular, they had high overhead costs with respect to their competition. They need to find ways to cut costs.
- Staffing levels were too high; they also took much longer to process a loan than any other credit union.
- Customer service was a disaster and, as a result, they were losing customers to their competitors.
- Cosmetic Strategy: Eurocos, Inc. produces and sells various cosmetic products in several European countries. The company's different brands are well established in the markets. The various products are quite similar in terms of raw materials and production. The company has been doing very well in the past; however, profits have been shrinking in recent years. The CEO of Eurocos, Inc. thinks of changing his strategy in the industry. He asks you if this is a good idea and what he should do.
 - Again, if profits are decreasing, either costs are increasing or revenue/demand is shrinking or a combination of both.
 - Market: Industry has many small to medium size companies with few large firms owning several brands. There are many small to medium size brands.
 - Eurocos produces all products in all countries and transportation costs are small.
 - The structure of the industry is fragmented because there are low entry barriers, high product differentiation, diverse markets and customer needs, and tariffs and customs barriers.
 - How can fragmentation be overcome: Create economies of scale to lower costs and move up learning curves. Separate product's commodity aspect from fragmenting aspect.
 - Lower costs: consolidate production process to keep manufacturing cost low. This will work because there will be economies of scale in production due to better sourcing, longer runs, and better quality.

- Increase revenue/demand: Keep the marketing and branding decentralized to the different countries where they know the pulse of the consumers in each market. Additionally, have the marketing department communicating with manufacturing to make sure that there is still sufficient demand in separate markets to justify the wide product lines.
- Company will move down the learning curve. Also, company will keep the “fragmented” marketing required in the market. Total inventory will decrease – safety stock at original plant locations can be pooled centrally to further lower costs.
- Synthetic Mix: A client produces a range of synthetic materials in varying widths and lengths. Each material is used for packaging but differs in physical properties in terms of costs, weight, flexibility, and general performance. Each material can be coated with any one of four or five types of chemical coating which make the materials more or less impervious to heat, light, water, vapor, etc. All of the machines on which these materials are made are housed in one enormous factory location. Each machine is capable of running any one of the various materials and/or coating combinations. The client does not wish to invest in additional equipment at this time. The client has asked us what combination of products he should run to increase his plant’s profitability. How would you go about determining the optimal mix of potential products on these machines?
 - Market share: The industry is highly fragmented. A variety of small manufacturers supply similar products to a wide range of customers. Your client estimates she has less than 1 percent of the total market. No competitor has more than 3 percent of the total market.
 - Cost: Each product has a different manufacturing cost depending on materials used and the manufacturing process.
 - Price: Each product has a different price depending on both the client’s manufacturing cost and the market for the product.
 - Essentially, if you are examining profit potential you want to find the best product mix of revenues (customer demand) and cost (supply).
 - Revenues: Your client’s products seem to be commodities given there seems to be no industry leader. Thus, the marketing department should determine what products have the highest customer demand and identify what drives customer preferences: price, quality, etc. It sounds like there is little brand loyalty. Concentrate on the products that will generate the highest revenue.
 - Costs: Your costs can fluctuate widely given different set-up and lead times plus the raw material and packaging costs. Determine if there are products that are costly relative to their demand and should be dropped. Explore ways to consolidate operations, run times, etc. for a more flexible process. Ultimately, you want to have a firm idea of the margins on each product. Margins combined with knowledge of consumer preferences should drive the production mix. Also, take into consideration capacity, resource, and other input constraints.
- Delivery Pain: Your client is the largest package delivery service in Canada. During the past 30 years, the firm has established a network that allows it to deliver packages to anywhere in Canada. Until last year, competition had been non-existent and profits were strong. Starting a year ago, a new company began parcel pick-up and delivery to only three cities: Toronto, Montreal, and Vancouver. Although overall volume has declined by only 10% for your client, profits have decreased by an alarming 30%.

Outline your hypothesis for this decline in profitability. Explain what analytic measures you would use to diagnose this problem and where you would gather the necessary data. What suggestions would you recommend to your client to restore profitability and prevent this from happening further?

- The new entrant has a fleet of older trucks that run between the three cities. Your client has a new fleet that services all of Canada. Your client's fleet mix has been optimized such that efficiency and capacity utilization are high considering the network of locations.
- The new entrant charges 50% less than your client for package delivery.
- Your client and the new entrant both charge by the pound-mile. One pound carried one mile is a pound-mile.
- This case is about the cost-benefit analysis of serving the entire market or just its most profitable segments. The new entrant has initiated service in the three markets where economies of scale are present. Due to the higher volume of packages between these cities, larger trucks and efficient distribution centers have made such limited service more profitable.
- How to reach or explain this conclusion: Use historical sales and expense data (or a cost measure such as pound-mile) to show that major city routes have subsidized delivery to smaller cities and towns.
- Compare the margins of customers in different rural and urban locations to see if delivery to these inconvenient locations justifies the additional expense of the service. If not, consider the possibilities of what to do with these customers.
- Explore ways to maintain your urban customer base by either lowering operation costs and thus prices or rewarding loyal city customers with discounts or other promotions.
- Recognize that this delivery service to all of Canada is a source of competitive advantage to your client and those businesses that ship to these areas cannot afford to lose this service.
- Employ strategies to exploit this competitive advantage given the absence of substitutes and the price inelasticity of this segment of the market. Determine a new pricing strategy that will increase charges for rural deliveries. Note that this may invite new entrants if rural delivery becomes very profitable.
- Develop long-term strategic alliances/contracts with customers who use your rural delivery capability. Offer the same flat rate only when a customer agrees to use your client for both rural and city deliveries.
- Search for synergies with other companies that also deliver to rural areas such as grocery, beverage, or snack delivery companies.
- Astro-demand: Your client has developed a new kind of astro-turf that they claim is far better than any other existing products. You have been hired to estimate demand per year for the next three years in actual number of square feet of astro-turf. After 3 years the client's patent runs out and new competitors will introduce similar products.

In estimating market demand one methodology is the following: 1) Determine the overall market 2) Segment the market into different components 3) Try to determine the drivers of demand in each segment of the market 4) Review/challenge your assumptions for market demand for each segment.

Overall Market: Could include professional sport teams, college athletics, and high school sports

Segment the Market: Determine which sports would demand the new astro-turf: football baseball, soccer, and lacrosse. Now make assumptions regarding the number of potential customers in each of these sports. Always pick round numbers for easy calculations. (Anytime you make assumptions about the market’s potential customer base, you can remind the interviewer that under normal circumstances, you would utilize a host of resource tools such as market research, industry data, sales and promotional feedback, client focus groups, etc.)

<i>Professional Teams:</i>	<i>Number</i>	<i>College Teams:</i>	<i>Number</i>
Baseball	20	Football	
Soccer	15	Div. I schools	100
Lacrosse	12	Div I AA	50
Football	28	Div II	50
		Div III	25
		Soccer (grass more popular)	75
Total	75	Total	300

Assume all fields are the same size and require the same amount of material: 120 yd x 60 yd or 7200 sq ft per field. Multiply 7200 by 375 fields to get the total potential market of 2,700,000 sq yd. Now, speculate on how much of the total market you expect to penetrate each year considering how often stadiums change fields, what the recent trends are with respect to natural grass, etc. Apply these percentages, e.g., 10-20%, to get yearly demands of 270,000-540,000 sq yd.

- **New York Banking:** How would you determine whether a location in New York City holds enough banking demand to warrant opening a new branch?
 - **Company:** Your client needs to assess its motives for opening a new branch: profitability, expansion into new markets, drive out existing competitors, etc. You must examine how or if the new branch would complement your client’s existing competitive strengths and business strategy (retail or commercial, high growth or high profitability) and what purpose the branch would serve. If your client is focused on deposits and withdrawals only, an ATM may be sufficient.
 - **Market:** Examine the demographics of the area surrounding the prospective branch. Population, business concentration, income levels, etc. should be compared to those of historically successful branches. Is the area too saturated or can it sustain another branch? What is the economic climate of that area – is it a growing business community or are people and companies leaving the area?
 - **Customers:** Perform market research to determine the drivers of success in this area. What do potential customers place the highest premium on (e.g., cost, service, accessibility, etc.)? How do these qualities fit into your client’s business profile?
 - **Competition:** Anticipate what your competitors’ reactions to your client’s entry could be. This would depend on the importance of the area to competitors in terms of profits,

market share, diversity of business operations, etc. Your client will have to match competitor's incentives to customers and should estimate these costs.

- **Knit Wit:** How would you assess the world demand for knitting machines?
 - One method to look at this is to say the world demand for knitting machines is dependent upon the world demand for cloth. In order to evaluate the world demand for cloth, we need to know how much new cloth (in square meters) is being purchased per year per number of people in the world.
 - In order to refine our number, we may segment the world population by level of personal wealth.
 - Also consider these three factors in this question: 1) The current level of the ratio of cloth manufactured per year to the number of knitting machines. 2) The average useful life of a knitting machine. 3) The existence of substitutes for knitting machines and their impact on knitting machine demand.

Another way to approach this question is to analyze the world market for knitting machines. This would involve examining the following questions/issues:

- Who is the world market (segmented by country, region, ethnicity, per capita income, etc.)?
- What does historical business data for the knitting industry tell us about world demand? (This information may be found from industry sources, trade journals, government agencies like Dept. of Agriculture and Commerce.)
- Which people/countries make up the consumer demand for knitting machines? (Who are the customers?)
- What companies are the major suppliers of knitting machines?
- What are the drivers of change in this industry? Technology? If so, what new technological advances in equipment have made the knitting machine obsolete and how fast is this development spreading across the world markets?
- **Chinese Tea:** How much tea is there in China?

The following is one of many approaches to answering this question. Ask the interviewer if s/he minds if you use pen and paper to assist in your calculation.

 - Assume you will give the answer in total number of tea bags in the country.
 - Start off by making some assumptions about population, imports versus exports, and tea storage.
 - Assume total population of China is 1 billion people.
 - Assume maybe that they export half as much as they have in the country at any given time.
 - Assume that you are calculating the daily total and that the Chinese keep a weeks worth of tea at any given time (so multiply your total by 7).
 - Segment the total population into 3 age groups to calculate total consumption/amount. Say ages 0-20, 20-40, and 40 and above that constitute 400,400, and 200 million people each.
 - Now make assumptions as to how many tea bags each group consumes a day, say 1, 3, and 3. This gives you a total daily consumption of 2.2 billion tea bags times 7 days a week plus half that amount for exports for a grand total of 23.1 billion tea bags in China on any given day.

- Finally, your interviewer may ask you which of your assumptions you would challenge or question if you had more time for analysis.
- Penny Shopping: You own a shopping mall. How many pennies are in it at any given time?
 - First, identify all possible sources of pennies: merchants (both registers and safes), gumball and other machines, public water fountains/wishing wells, banks, and change on people.
 - Now make assumptions about each source.
 - Merchants and banks: Guess/assume how many stores, size of stores, number of cash register and safes, and how many pennies in each.
 - Machines and fountains/wishing wells: assume how many there are and how many pennies are in each.
 - People: assume how many are in the mall at any given time and guess how many pennies they each have on themselves.
 - Add up the sub-totals to get your answer.
- Chicago Shogun: Your rich uncle has died and left you a piece of prime real estate in downtown Chicago. If you were building apartments on the property, how many stories high would you build?

This is a financing decision case and is all about options, opportunity costs, and net present value. Questions and issues you should raise include:

- Is there an existing building on the property or is it empty land?
- Are there any liens or mortgages on the property?
- Are there any factors that might threaten ownership or development?
- The first decision is whether or not to build at all. It may be that you can make more money by simply keeping the land or by selling the property to someone else who values the property more than you do.
- The second decision is whether to build apartments versus offices, homes, etc.
- You would need to ask if the property is zoned for apartment buildings. Are there limits on how high apartments in this area can be? What is the neighborhood like? Are there condos, apartments or slums?

Solution: If you are indeed going to build apartment buildings and have freedom to make them as high as you want, then the number of floors is a marginal revenue/marginal cost question. You build an additional floor if its marginal revenue is greater than its marginal cost.

- American Car Owners (Mitchell Madison): What percent of the world's cars are owned by Americans?

The answer is between 30% and 35%. I assumed there are 100 million American households and each household has 2 cars. Therefore, 200 million cars are owned by Americans. I then divided the rest of the world between developed and non-developed nations. There are 1 billion people in developed nations, and I assumed half had cars -> 500 million cars. In the underdeveloped nations, I just guessed 100 million cars.

Therefore, the percent of cars owned by Americans is $200/600 = .33$

- Probability Potpourri (Mitchell Madison): Part I: A has a probability of 1/2, and B has a probability of 1/2, what is the probability of A and B?

Part II: You are a contestant in Let's make a deal. You select door #2. Monty Hall opens door #3 to reveal nothing behind it. Should you stay at door #2, or switch to door #1?

Part I:

First ask if it is independent, if so $1/4$,

If A and B are correlated than the answer can be between 0 and $1/2$.

Part II:

You should switch to door #1. Door #1 offers a $2/3$ chance for the prize, while Door #2 offers a $1/3$ chance. It is the same as giving you the choice of Door #2 or both Door #1 and #3. You would select the latter.

- Movie Man (Mitchell Madison): You own a movie theatre. Currently, you price movies at \$8. Now, you want to divide your customers into 2 segments, recent movies and recent movies seen later. You will price these movies at \$10 and \$6. How would you assess the success of this?

Things to consider in answer: price elasticity of each segment, fact is, for first run theaters, you pretty much have perfect competition, it is a commodity, so you would lose your entire audience. For the second run people, the price would actually be inelastic.

Note, since movies are commodities, most of the money is in the concession, think about total volumes of people in the theater.

Another idea: if you do charge 10 dollars you must differentiate your product, large screen, or something.

One more idea:

- Question whether a third segment should be added (independent films).
- Analyze existing outlets that appeal to these segments.
- Run regressions on results.

- Pay Day (Mitchell Madison): You are with the firm for one year, discussing with the partner the compensation package for associates. What do you recommend?

This is tricky since I didn't know if my goal was to raise my salary or benefit the firm.

Some issues discussed:

Competition: other consulting firms, banks, and start ups.

What makes MMG different? Compensate accordingly think about non-pay compensation.

Alternate idea:

- Align Mitchell Madison values with incentives by implementing metrics.
- Perform competitive analysis (McKinsey, BCG, Bain, etc.) and customer analysis (prospective new hires) to determine how to keep new hires.

- Pulp and Paper (Mitchell Madison): A major USA pulp and paper player buys a competitor in Europe, which produces the same kind of products. These are tissue products, napkins, kitchen towels, etc. The problem is a decrease on ROA.

Other info:

- Business units are divided by country. Every country produces for his own market. They act like kingdoms and have their own specifications for their country products. For example, kitchen towels have small hills to give the sensation of volume (I cannot remember the technical name). Every country has different specifications for those hills. Have you ever noticed that different brands have different hills?, maybe not, unless you are very sensitive.

- Although paper machines are working 98% of the time (they produce big rolls of paper), converting lines (produce retail rolls or napkins) are working 30% of the time. Is there a converting overcapacity?
- Every do not want to change their specifications, because they think that customers will notice the difference.

The merger has not produced the synergies that were expected. It is reasonable, for example, to have the same kind of hills in all European products, and produce, for example, all kitchen towels in Germany and distribute to all the countries from there. In that case converting machines will work much more than 30% of the time.

This will stop, for example, machines in France. In that case this machine can be sold and ROA increase.

This change is better if the company switches to brand management instead of regional management.

- Health Insurance (Mitchell Madison):The California government passed legislation forming a private group to access health insurance for small business owners and their employees. They receive \$500m annually from the government and had a \$5 million subsidized loan that they had been paying back. In four years, their membership grew to 125,000, but the fifth year it only grew to 130,000. The legislation also stated that any insurance company that signs a contract with us must give us comparable rates as to big companies. The company had not incentivized their broker staff appropriately and had tried to sell direct - alienating them further. Brokerage fees also had a complex calculation. Should they become a private, not-for-private company and disassociate with the government?

Interviewer was concerned with the breakeven point of cove

Other issues:

- We have one other competitor who's about 1/3 of our size; their rates are more expensive but they are growing slightly faster (at least in the last year)
- Most insurance companies are excited to go through us but the largest in the market is not
- We have 3% of the insured market but it seems unlikely that we can grow quickly because we have a high penetration in our target market and other small business owners do not have the cash flow—to grow customers we'll likely have to wait until those small businesses become mature
- We have contracts with about 20 insurance companies (about 10-12 per region) but 2-3 are our largest players in each region. This increases their power over us. If we move away from being associated with the government, they can and likely would increase their rates
- The \$500m subsidy is minimal compared to our bottom line
- We'll have to refinance the loan if we move away from the government and pay higher interest but we've been prepaying the loan thus far
- Members can choose insurance from any of the insurance companies that the group associates with, even members within the same business—this is their strongest competitive advantage (CHOICE)
- Clients paid them the pro-rata cost of the insurance, a broker commission, and an administrative fee. The administrative fee was the primary source of revenue.

The interviewer was after two items: a) What is wrong with the company? b) Is the company viable as an independent non-profit company.

- **Incas and Business (PriceWaterhouse Coopers)**: In the 16th century, Francisco Pizarro with 168 men and 40 horses defeated a town of 80,000 Incas. Characteristics of the Incas:
 - they were rich, and they has mastered the art of making gold and handicrafts.
 - they had agriculture but no way of storing food for long
 - they regarded the king as a god.
 - there had recently been civil war among the Incas and the brother of the king had led an uprising against the king.Draw parallels between this historical incident and modern corporations in terms of strategy, IT, HR, marketing and finance.
Financing: Getting cash from the Queen of Spain
Human Resources: Recruiting and motivating the soldiers and sailors
Technology: Leveraging diverse technologies from gun-power to navigation
Knowledge transfer: Pizarro learned from Cortes and other adventurers. The Incas did not have a written language, so knowledge transfer was difficult.
Marketing: Playing one Incan faction off against the other faction.
- **New tire producer (McKinsey)**: Please calculate the Brazilian market for a new tire producer. Show your calculation. How may tires are sold per year in Brazil.
Use market size framework. First separated in auto and others. Decided to go with auto only, separated in new and reposition market, life cycle and so on.
General Tips: Be interactive. Be creative. Be organized. Do not think a simple frame work is going to save your life.
- **Bank loans (BCG)**: One bank used to provide financial service to big industrial companies. Because of recent economic crisis, those big companies are facing troubles to repay their debts. The bank is looking for new customers, e. g. small or medium sized companies. How can the bank determine the credit of those companies to make loan decisions?
Financial ratio analysis was useful.
- **Revlon (PriceWaterhouse Coopers)**: The question is purposely vague – you are asked by CEO of Revlon to estimate how many shades of lipstick the company should carry. You could think in terms of
 - Market penetration – Revlon is “mainstream brand”; talk about brand extensions, etc.
 - Profit – 20% of products make 80% of profits
 - How many lines of shade are physically possible – from brown/dark red to pink to other colors
 - Should Revlon think about “seasonal”/faddish colors? Again, brand name erosion.
 - What about manufacturing process? At what point are the “color dyes” added? How would each scenario (beginning vs. end) affect production costs of lipstickChannel – just how much shelf space would Revlon’s retailers devote to its products?
Think department store and drug-stores and estimate size of counter.
Frameworks used: Perhaps 3C-4P’s, but no specific framework applicable – one of these estimates questions but I use a number of ways to “triangulate” the answer.
Operations concepts such as bottlenecks, lead time, etc. were also useful.
Taking Supply Chain class was extremely helpful for this case.
- **Hilarious Bill**: Bill Clinton has just fired Hillary as Chief of Health Reforms and has appointed you to fill the position. While in this office, you discover that kidney dialysis is a

major portion of public health care expenditures. What analytical techniques would you use to determine if this cost could be reduced?

- Essentially, you would want to see if the high costs are due to greater incidences, the cost of the procedure, or both. You would also want to determine if the costs are higher due to illegal or unscrupulous practices such as embezzlement of funds, payoffs, etc.
- Analyze the proportion of public versus private health expenditures that are applied to kidney dialysis treatment to determine if unscrupulous practitioners are pushing this expensive treatment onto the public health budget.
- Compare the incidence of kidney disorder in this country with other countries. Is ours higher? If so, can public policy or efforts to increase awareness help to reduce it?
- If incidence is indeed higher in the U.S., build a model (regression perhaps) that will somehow determine the factors that have the most causal relationships with kidney treatment. Perhaps those who are typically covered by public funds (the poor, elderly) have a higher incidence of kidney problems. Is there room for any type of preventative program for these groups?
- If the cost of the procedure seems high compared with similar medical procedures, it could be due to professional fees, consumables, or high capital equipment costs. Limiting the amount of government compensation could cut professional fees. Employing new technologies could cut consumables and equipment costs.
- Oil Slick: What factors determine the world price of oil?
 - Consider the influence of the capital markets and how future spot oil prices and speculation in the market impact world oil prices.
 - Prices in general economic terms are a function of supply and demand in the market.
 - Demand: Explore the factors aside from price that would effect demand such as new technology, import quotas, wars, etc. It turns out that global demand for oil is inelastic meaning that changes in prices have less of an effect on quantity demanded. If this is the case, fluctuations in supply will have a greater impact on the price.
 - Supply: Examine the impact of the various regional suppliers and their cost structures (for example, high cost in the U.S., low cost in the Middle East).
 - At this point, you may recommend drawing a simple graph. The low cost producers such as Saudi Arabia would be at the lower left end of the supply curve while high cost producers such as the U.S. would be far to the right on the quantity produced x-axis. Thus, we can conclude that Saudi Arabia, assuming that it has the capacity to produce more than it currently is, controls the price of oil. However, its production is limited by OPEC rules. If, however, they use their excess capacity to control price (as in the case of the Persian Gulf War), the pricing power lies in their hands. Oil prices did not skyrocket during the war because Saudi Arabia promised to increase production to a level that eclipsed the global pre-war level.
- Aluminum Advantage: An aluminum can manufacturer has discovered a way of improving its manufacturing process. As a result, its manufacturing costs have been reduced from 89 cents to 79 cents. How can your client best exploit this new cost advantage?
 - Clearly your client should either drop prices and pass the savings onto customers while increasing demand or keep prices the same and reap additional profits.

- It turns out that your client is the leader in its market with 40% share and supplies directly to major beverage manufacturers. The number two competitor in the market has about 30% of the market and the rest is shared by many small competitors.
- Substitutes: Aluminum cans have a lower priced substitute, steel cans, which have inferior printing and stamping characteristics. Steel cans are used by customers who do not want to pay the premium for aluminum cans.
- If our client drops prices, other competitors will have to follow since this is a commodity market and not following would mean a quick demise. The decrease in price may increase your client's market share marginally, while some smaller competitors will have to start exiting the industry and larger competitors will have to invest in R&D to try to uncover our client's cost advantage.
- Impact on steel can substitutes: Steel can users will start switching to aluminum cans with the lower price thus hurting manufacturers in that market. The resulting growth in the aluminum can market will attract steel can manufacturers to enter. Since some of these manufacturers have deep pockets and strong backing, these new entrants could pose a future threat to your client.
- Conclusion: It is probably best for your client to retain prices and generate extra profits now. The cost advantage and subsequent lowering of prices may help in the future during a price war.
- Corny Costs: A corn refining company has a high proportion of fixed costs. It has 2 principal buyers, each buying a little over 40% of the product. Should the refining company try to change its customer base? Why or why not?
 - First, examine your client's cost structure to find out what components make up these high fixed costs such as plant, equipment, and other capital expenses. Explore ways to decrease fixed costs such as outsourcing, more efficient plant operations, newer and more productive equipment, reducing overhead, etc.
 - Next, benchmark these costs against competitors or leaders in the market to try to ascertain why their fixed costs are disproportionately lower than your client's.
 - Why does your client have only two major customers? Is this rationale due to a long standing relationship, joint venture, niche market, low overall demand, etc.?
 - It turns out that the buyers pay transportation costs and the company has no cost advantages by having only two buyers.
 - The company is a price taker.
 - Investigate demand and capacity. One way to overcome high fixed costs is with large sales volumes to spread over these fixed costs. Does your client have more demand for its refining services than just these two principal buyers do? If it does have more demand, do your client's facilities have enough capacity to meet the market's demand?
 - The key point is that companies with high fixed costs need to always operate at or close to capacity. Having only two buyers gives each buyer a lot of power. It is thus preferable to have many buyers each with a smaller share.
- Utility cost-cutting: A credits and collections department of a medium size utility company has hired you. They have two primary means of receiving customer's payments. The first way is through the mail, which accounts for 90% of their billings. The second way is a collections office located in a community close to downtown. Presently it costs them only

\$0.10 per bill through the mail but \$1.20 per bill through the agency they operate downtown. They have hired you to help them reduce the cost per bill of the agency. What would you do?

- First, always clarify if your client is talking about 90% of sales volume or sales revenue. In this case it does not matter.
 - Inquire about why it is so critical to keep this costly facility open for such a small percentage of their sales. It turns out your client is very loyal to its customers who prefer to use this walk-up facility.
 - Explore what other uses your client can use the facility for to generate revenue to spread out these costs. It turns out there are a couple of video games in the front foyer and there are two big rooms in the back they rent out to local clubs but both really have no potential impact on helping cover costs.
 - Is there a cheaper area for this building to be located? It turns out that the answer is no. Your client likes the present location given its proximity to its customers.
 - How does your client's competition operate its collection facilities? Do they have similar problems? Is it possible to outsource at a cheaper cost? No, it turns out your client is the only one to have this sort of operation.
 - Explore the cost associated with this building. It turns out the facility has long since been paid for and has very little overhead cost. It staffs 5 people all the time. (Hint, is there always enough demand to warrant 5 personnel?) It turns out they are not always that busy and can have fewer shifts throughout the month. This brings the cost per bill down to \$1.00.
 - Examine all the functions this office serves. It turns out your client uses this facility to also open customer accounts and as a customer service center. (This is the main issue of the case, your client should be splitting the cost per bill in three because this complex serves three different functions.)
 - This gets the cost per bill down to \$0.30 per bill, which is as low as you can get.
- Real-estate Windfall: You inherited a parcel of land along Sunset Blvd. What will you do with it?

This is a financing decision case and is all about options, opportunity costs, and net present value. Questions and issues you should raise include:

- Is there an existing building on the property or is it empty land??
- Are there any liens or mortgages on the property?
- Are there any factors that might threaten ownership or development?
- Are there limits on how high apartments in this area can be?
- The interviewer may entertain several notions of what to do with the land depending on the direction of the discussion. Assume the land is not in a residential area but instead is located in a business area.
- Assuming that your goal is to try and earn the greatest return on this land, this case turns into a classic NPV problem. Discounting your net cash flows (the difference between your operating revenue and costs), you have essentially four different options in which to earn the highest NPV:
 - 1) Sell the property
 - 2) Build on the land
 - 3) Lease the land
 - 4) Some combination of 1,2, and 3

- With each option, discuss the different methodologies of assessing the value of selling, building, or leasing. Benchmark against existing property values in the area and identify the pros and cons of each option depending on trends in the real estate market.
- Multimedia Christmas: A small multimedia company recently released 2 CD-ROM's late. They lost a lot of money and now need to raise cash quickly for the upcoming Christmas seasons. How would you approach this?
Obviously the key here is that cash needs to be raised quickly. Here are some options to explore to raise the sufficient funds:
 - Look at the balance sheet. Are there significant account receivables that can be quickly collected? (It turns out there are some but are not due yet, so offer these customers discounts for immediate payment).
 - Investigate the option of borrowing cash from banks and other institutions.
 - Are there parts of the business, excess inventories, etc. that could be divested?
 - Can they get advances from some of their long-standing customers on product orders to be delivered next year?
- Japanese Investment: Your client is the California State government. They are trying to attract Japanese business investors to the state. They want them to open businesses here to increase jobs and improve the economy. How would you market this concept to Japan?
For any marketing question, a fail-safe framework is an analysis of the 3Cs:
 - Customers: What does California have that Japan needs – look for links in the economy. For which sector(s) would it be cheaper for Japanese manufacturers to build in CA; e.g. computer hardware. Financial considerations: which companies can afford to open new plants or establish operations? They should be exclusively targeted. Also examine companies that already have existing business relationships or investments in California.
 - Competitors: What other regions could Japanese businesses go to and are they going there? Why or why not? What other states/countries are trying to attract Japanese investments? What are their tactics, and what will their reaction be to California's bid? What Japanese firms already have strong alliances with other territories? These firms should not be at the top of the target list.
 - Company: In this case, the state of California. Any solution should highlight California's competitive advantage. Consult a marketing and advertising firm to identify and promote the most attractive aspects of having a business venture located in California. Illustrate positive economic trends, the fact that Southern California itself generates one of the top ten GNPs in the world. Highlight the climate, access to raw materials (port of S.F. and L.A.), strong Asian and other cultural consumer base, access to various distribution channels, etc.
- Consulting: You have been hired by a consulting company to evaluate the future of the consulting business. How would you approach this?
This is a Porter's Five Forces question. In general, any questions that ask for a broad industry analysis can usually be structured around the Five Forces.
 - For example, who are the customers? Possibly any firm could use consulting services. Are there market segments? Are some firms using consulting more than others?

Identify any changes or current trends in consumer's behavior. What is most important to your potential customers (e.g., cost, quality, service, reputation, etc.)?

- Who are the competitors? Companies may choose to solve problems in-house or use individual experts in particular areas as opposed to hiring consulting teams. What are your competitors' strengths and weaknesses?
- What is the overall industry like? Analyze the threat of new consulting companies (minimal) and industry trends. What are the drivers of success in this industry?
- What are your client's particular core competencies and how can they leverage these to achieve a sustainable competitive advantage? What different types of consulting does the firm engage in? What external factors would affect your client's business (e.g., the economy, regulatory actions, international business growth, etc.)?
- Magazine Publisher: A magazine publisher is trying to decide how many magazines she should deliver to each individual distribution outlet in order to maximize profits. She has massive amounts of historical data for sales volumes through these outlets and a well-constructed internal accounting system. How should she go about computing an appropriate amount?

The best way to solve this case is to draw out an analytical framework and fill in the gaps. It should be immediately observed that in economic terms, to maximize profits, you need to set marginal revenues equal to marginal costs (the revenue of one more magazine sold equals the incremental cost of that magazine).

- The marginal revenue for a magazine would be its cover price multiplied by the probability that it will be sold.
- The probability of sale, within an appropriate confidence interval, could be determined from historical data.
- The marginal cost could be determined from the internal accounting data.
- While it is not always possible to calculate these individual increments in a business, another similar method would be to use the data to look at the revenues and costs associated with each distribution outlet.
- Try to assess the demand of each region in sales revenue and then look at the different profit margins for each location. You should be able to identify if it is costing too much to distribute magazines to an outlet that is not generating as much sales as another location with a greater.
- Skis: How many skis were sold in the U.S. last year?
Like cases before, the key here is to carefully walk the interviewer through your assumptions and then come up with a figure. Here is a good approach:
 - Assume 250 million people in the U.S.
 - Assume 10% of the population actually skis (You may want to support this assumption by anecdotal or other evidence.) That gives you a total skiing population of 25 million.
 - There are two important breakdowns among these 25 million – those who own their own skis and those who rent. Probably only 25% own skis (you know this because you are an avid skier, have a lot of friends who ski, etc.) for a total of 6.25 million new skis buyers.
 - Estimate how often people buy new skis – say every three years. So of the 6.25 million skis buyers, roughly 2.1 million bought skis last year.

- Those who rent probably ski less frequently than those who own. But ski rental places buy lots of skis. It is hard to estimate the number of skis bought by rental shops but make assumptions as above. *Need to come up with a guess for the number of ski rental shops in the U.S. Then make an assumption for the number of new skis they buy each year, remembering that most rental skis are used.)
- Add this number to your 2.1 million and you have your total of ski units.
- **Bubble Gum:** Estimate the number of bubble gum chewed in a day in the US. Make any assumptions required to solve the problem. State the assumptions and the calculation in your solution.

Assumptions:

- Number of people in the US = 250 million.
- 75% of gum is chewed by people ages 8-15.
- 75% of population between 8-15 chews gum.
- 10% of population is between 8-15 (assumes flat population distribution between ages 0 to 70; 10% of population in each age bracket).
- People who chew gum chew an average of two sticks per day.

Number of people between ages 8-15: 250 million *.1 = 25 million

Portion of people ages 8-15 who chew gum: 25 million *.75 = 18.75 million

Amount of gum chewed by ages 8-15: 18.75 million *2 = 37.5 million

sticks

Total gum chewed: 37.5/.75 = approx. 50 million sticks

of gum/day

From Cornell's case-book

USPS Employment

How many people work for the post office?

SOLUTION STRUCTURE

This is a pure estimation case. What matters is the way you get to an answer, not necessarily the answer itself. As the interviewee is working through the problem they should make it abundantly clear what their assumptions are. To test the interviewee, you could always ask, “Why did you make that assumption?” or “What is your reasoning for that assumption?” It can be tackled many ways but here is an example of one way it could be done:

Assumptions:

- There are four kinds of employees: drivers, tellers, admin., and sorters. The air transport side is mostly composed of private carriers.
- Of all the zip codes possible (99,999), all are allocated to an area and used. (round to 100,000)
- Every zip code has one post office.
- Every post office serves the same number of entities.
- There is an average of three windows (tellers), three sorters, and four letter carriers attached to each zip code. (10 employees)
- Add on 10% for the admin and intrastate drivers.

Do the math: $(100,000 \times 10) \times 1.1 = 1,100,000$ people work for the post office

In reality:

890,000 people work for the post office. There are 38,000 post offices and 234,000 letter carriers.

Shortstop to Base

In professional baseball, how long does it take for a baseball to travel from the shortstop to first base?

SOLUTION STRUCTURE

Assumptions:

- The bases are 90 feet apart.
- The distance from shortstop to first base is about 120 feet.
- A major league pitcher can throw about 90-95 mph.
- A major league shortstop can throw about 80 mph.

The key is to be able to convert miles per hour to feet per second.

80mph to feet/hour:

$$5280 \text{ feet/mile} : (80 \times 5280) = 422,400 \text{ feet/hour}$$

Convert units:

- 60 minutes per hour, 60 seconds per minute = 3600 seconds/hour $(422,400/3600) = 117$ feet/second
- 120 feet from shortstop to first base, thrown at 117 feet per second = $(120/117) =$ just over a second (1.02 seconds).

Don't be afraid to round off these large numbers

- 5000 feet/mile $\times 80 = 400,000$
- 4000 seconds/minute: $400,000/4000 = 100$ ft/second
- $120/100 =$ just over a second

It's much easier this way. They're not looking to see if you have calculator for a brain, they want to see your logic and ability to convert.

Colorful M&M's

How many M&Ms of each color go into a 3-ounce bag?

ADDITIONAL INFORMATION

- 20 M&Ms make up a 3 ounce bag
- There are six colors of M&Ms: yellow, red, green, blue, brown, orange
- They all cost the same to produce
- Research indicates that customers have no preferences of color.
- Color is added on at the end of the mfr process
- They are mixed in the same ratio that they are produced
- Capacity of adding color:
- 3 tanks hold the 3 primary colors: yellow, red, blue
- 1 remaining tank used to mix colors to prepare: green, brown, orange
- Each of the 4 tanks has equal capacity.
- The 1 mixing tank pulls yellow, red, and blue as needed from the same supply that fills the three primary tanks.
- They only refill the primary tanks when all three have emptied.
- Tanks are allowed to run out before they refill for batch control purposes
- Proportion to mix brown: $\frac{2}{3}$ yellow, $\frac{1}{6}$ red, $\frac{1}{6}$ blue
- Proportion to mix green: $\frac{1}{2}$ yellow, $\frac{1}{2}$ blue
- Proportion to mix orange: $\frac{1}{2}$ yellow, $\frac{1}{2}$ red

SOLUTION STRUCTURE

This case is designed to get you into a manufacturing state of mind. The idea is that you will burn through yellow faster than any other color since it is needed the most. Therefore, there should technically be more red and blue M&Ms in every bag. They will still be produced after the supply of yellow has run out, stopping production of yellow, green, orange, and brown.

Book on China

You've made the final round, you walk into a senior consultant's office and he tells you he's been thinking about writing a book on "Business in China" and retiring from the consulting business. He wants to know if it's a good idea and if he'll make enough money to retire. What will you tell him?

SOLUTION STRUCTURE

Both questions are driven by the same answer - How much money will the book make for the consultant.

- How big is the market for business books on China?
- How much of the market value does the author actually receive?
- How much does the consultant require in order to retire?

Market for Business Books on China:

- Estimate the number of adults in the United States = 125 million
- Estimate the number interested business books = 20% = 25 million
- Estimate the number interested in books on China = 5% = 1.25 million
- Gut check: Do you really think he can sell over a million copies? No way!
- Re-estimate: 125 million x 10% x 1% = 125,000 copies (more realistic)

How much does the author receive? (Assume \$15 retail)

Value Chain:

- Retailer Cut \$2.00
- Marketing Costs \$3.00
- Manufacturing Costs \$3.00
- Publisher Cut \$3.50
- Author \$1.50 Total Take: 125,000 x \$1.50 = \$188K
- Total \$15.00

Can he retire?

Wrap-up by asking if \$188,000 is enough to retire – doubtful.

Real-estate Divestiture

Your client is a large real estate development company considering buying a piece of real estate in Colorado. How do you go about analyzing the investment?

ADDITIONAL INFORMATION

The property has 5,000 acres of open, undeveloped land.

The property is 45 minutes from Telluride, a skiing area, a home of a large summer film festival, and a five-star resort and spa. The land has several small hills and abuts a mountain.

There are 7 horse-riding stables in the area, two of which offer cattle drives, like in City Slickers. Company currently owns hotels, strip malls, and office buildings nationwide.

SOLUTION ANALYSIS

You need to determine the highest and best use for the land in order to assess its value. To do this, you should start with the 3Cs:

- Competitors - Analyze other similar plots of land that have been developed with like characteristics – Utah, Montana, even Eastern regions such as New Hampshire.
 - What other commercial developments exist in the area? Is there an abundance of any one type—horseback riding stable, fly-fishing camps? Is there enough demand to handle another competitor, or do you need to branch out?
- Customers - Consider existing activities that many people do within the area as this may show what people are interested in doing with the land.
 - Segment the potential market: residents, vacationers (summer and winter). Which groups are the largest and which are growing?
 - Analyze the unmet needs of each group; can you fulfill them in some way?
 - Do you want to try attracting a new group that does not already vacation or reside in the area? (Very expensive and risky)
- Company - What specific skills do you have to improve or manage this land?
 - What specific characteristics does the land have that might differentiate it for better or for worse?

Then you need to analyze:

- Financials: How investment fits in portfolio: geographic or product diversification; liquidity risk of the investment; investment time horizon
- Whether any improvements can have multiple uses in case our original idea fails
- If you have the skills to manage the property
- How you intend to ward off potential competitors by creating a unique value proposition.

Pharmaceutical Pricing

A pharmaceutical company developed a drug that can cure shortsightedness. It is wondering how much it should price the drug at. What is the upper bound and lower bound price for the drug?

ADDITIONAL INFORMATION

- There is a substitute product, laser surgery, but it costs \$1,000 and there is 5% failure rate.
- The pharmaceutical company has a monopoly on the drug for the next 3 years.
- The drug is taken only once and can cure you within one week. It does not have any failure rate.

SOLUTION ANALYSIS

Lower bound price should be price of its substitute such as eyeglasses and contact lenses.

Eyeglasses:

Assumptions:

- Duration of wearing eyeglasses is from age 15 to age 45 (from age 45 they have to wear other types of glasses such as bifocals).
- People change their eyeglasses once every two or three years.
- The average price of eyeglasses is \$200.
- Discount it back at 10%.
- Price: $\frac{((45-15)/3)*200}{1.1^n}$ (Example is for eyeglasses replaces every three years. Contact lenses are calculated the same way.)

Upper bound price is slightly more expensive than the price of the laser surgery since the company has a monopoly and the drug has a 0% failure rate.

Bank Profitability

Our consulting firm has been retained by a major bank to help improve the profitability of their largest credit card offering. Their card (in the same class as a Visa or MasterCard) provides average returns in comparison to the industry, however, our client believes it can become more profitable. You need to analyze the situation and make recommendations.

ADDITIONAL INFORMATION

Costs	Revenue
Marketing, SG&A, Personnel (Can't change)	Annual fee - currently \$50 (Could change)
Bad Credit theft etc. (Can't change)	Annual percentage rate-14% (Could change)
Other costs (Can't change)	Merchant fee = 1.5% (Can't change)

SOLUTION STRUCTURE

- Opportunity to decrease costs or increase revenues - analyze drivers
- Opportunity to vary the annual percentage rate or the annual fee
- Benchmark competition for opportunities

Key Issues

Can't affect the cost structure, therefore have to increase revenues
Only revenue variables available are changes to the annual fee and APR

Competition:

Interviewer tells you it is a very competitive environment—move on.

Assumption:

- Customers use the card differently, there may be different customer segments based on the balance held, how quickly balances are paid off and the “need” for the card
- Case Interviewer suggests there are three distinct categories:
- Payoff in full every month
- Hold small debt for short periods of time
- Hold heavy debt for long periods of time (basically pay off the interest) -80% of our revenue
- He/she then asks how you would tailor card services to each of these groups:

Recommendations

Pay In Full Monthly charge high monthly fee provide numerous services (detailed reports, small benefits)	Hold Small Debt Short Term increase the APR slightly decrease the annual fee	Hold Heavy Debt Long Term waive the annual fee increase their credit limits cash back programs, points access to cash advance, etc.
---	--	---

Key Issues:

These heavy debt cardholders are the key to our profitability, it is imperative to get them to sign up for the card (no annual fee), use the card (cash back, point systems) and run up debt (automatic credit limit increases).

Note to Case Interviewer:

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

As soon as the interviewee had identified the key drivers of revenue and cost, the focus of the case was shifted to customer segmentation and tailored services for each segment.

Video-retailer Profitability

Our client is a major entertainment company on the West Coast. One of their divisions is a leading home retailer. During the late '80's and early '90's this division had a great run-opening 4,000 stores and realizing considerable profits. In the last two years both growth and profit have declined substantially. You have been brought in by the CEO to assess the situation and provide recommendations.

Background: Our client's division is not unlike a chain of Blockbuster video stores. The majority of their business is in movie rental with a much smaller portion in sales.

SOLUTION STRUCTURE

- Start with a simple: (Profit = Revenue – Costs) structure
- Analyze the competitive situation
- Analyze the “substitution” factor – how else are consumers getting movies?

Costs:

Cost of the new movies: (Actually decreased)

Overhead: (No change)

SG&A: (No change)

Leases, other: (No change)

Revenues:

of rentals: (decreased, traffic down)

Price of rental: (No change)

Sale of rentals: (decreased)

Accessories: (No change)

Key Learning:

Costs have actually decreased, but not enough to offset the decreased store traffic.

Competitive Assessment/Substitutes: (List potential causes of decreased traffic)

- New movie stores: (No real change)
- New In-home sources – cable on demand: (Potential for future but no real current affect)
- Sales of movies for home use and collection: (Sales have increased dramatically)

[Once the key issues have been identified, the interviewer describes the changing industry:]

When division was growing, it could buy excess numbers of the new releases to satisfy customer demand. Later, they would send the excess copies to the new stores as part of their “library” of existing tapes. With fewer new stores opening, this is no longer an option-therefore fewer new releases have been ordered.

Recently, the studios have allowed new releases to be sold through warehouse stores (Wal-Mart) at the same time they are made available to the rental retailers. Thus, many of our customers are purchasing rather than renting. In addition, when customers rented a new release, they quite often rented an existing tape from the library (additional lost revenue).

Based on this industry outlook, what would you recommend for the division?

Provide a recap:

It appears as though the major issue facing the division is a reduction in store traffic for new releases. This is mainly due to the sale of these same releases through alternate channels. How can we regain store traffic or offset the rental losses?

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

Recommendations: (these are just a few of the potential options)

- Develop new, more convenient locations-kiosks, pick-up/delivery
- Develop pricing/bundling formats combining new releases with existing movies
- Offer “rent to buy” programs – rent the first time, then have option to purchase

Soap-flake Manufacturer

Your client is a manufacturer of soap flakes. The company is located in central New York, where it has resided since its founding almost 100 years ago. Its customers are primarily marketing concerns, not unlike P&G, that brand your client's products. Despite years of steady business and profits, the last three quarters have been below expectations. In fact, the company is losing money, and shareholders are not happy. You have been hired by the CEO to investigate the company's profitability. She is expecting some recommendations.

ADDITIONAL INFORMATION

- The product is unchanged – no new formulas, sizes, etc. – nothing that would affect sales
- Profit margins are generally steady (but very small! – soap is a commodity, after all)
- The economy is normal – no exogenous variables (i.e., customer out of business, etc. – nothing going on here)
- Recent downsizing reduced labor force by 15%
- Old equipment was recently scrapped – the plant was almost 100 years old!
- New plant equipment – purchased on credit (yes, this results in a new fixed cost, if asked)

Revenue Drivers

Q: What are the revenue drivers? A: You tell me, you're the consultant – why don't you outline what you think they are.

Q: What has changed? A: Nothing: sales, price, volume, market size, customer base, etc. are all steady.

Variable Costs

Q: What are the variable costs? A: You tell me, you're the consultant – why don't you outline what you think they are.

Q: What has changed? A: Raw materials unchanged, labor reduced.

Fixed Costs

Q: What are the fixed costs? A: You tell me, you're the consultant – why don't you outline what you think they are. Reduced labor costs from downsizing means less fixed costs. Loan and interest payments for equipment > existing profit margins (this is the key). Nothing else has changed, if asked.

SOLUTION STRUCTURE

- Framework: Profits = Revenues – (FC + VC)
- Examine revenue drivers: What's changed?
- Examine variable costs: What's changed?
- Examine fixed costs: What's changed?
- Summarize analysis
- Provide recommendations

SOLUTION ANALYSIS

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

Give up? The company recently purchased plant equipment to replace old plant equipment. The old equipment was paid for but the new equipment gave rise to fixed payments for the loan and interest. These are greater than the profit margins. Hence there is now a loss.

Jam Company Profitability

Your client is the owner of a Boston jam company. She has identified that her competition is making about \$1MM per year in profit more than she is. The impact of this is that the client is driving an older Acura and the competitor has a new BMW! Help!

ADDITIONAL INFORMATION

- Both companies are approximately equal in:
 - Revenue = \$10MM
 - # of jars sold per year
 - Market share = 2%
 - Product mix: 25% strawberry, 75% other
- Locations: client is in Boston, competitor is in a rural area
- Client prides herself on technological savvy. Proud that she has just gone to JIT, the first one in the industry. Client just installed a new, \$1MM computer system to support JIT.
- Client has a very loyal workforce with average time at the company of 15 years. A worker's average pay is 125% of the industry, primarily due to overtime.
- Client has their own transportation fleet (competitor does not): likes the feeling of control
- Product costs: (client)
 - Raw materials:
 - Sugar 10%
 - Fruit 70%
 - Jars 20%
 - Labor and overhead: equal to the raw materials costs
- Competitor purchases fruit only when in season – leading to significant savings. Client does not.
- Competitor produces in large batches and has loads of inventory.
- High changeover costs in jam production process at both the client and the competitor – there are no dedicated lines for different types of fruit.

SOLUTION ANALYSIS

- This is not a numbers case per se, although interviewee should attempt to ID the key components of the \$1MM extra cost that the client has. The extra costs arise from:
 - Changeovers / JIT system
 - High overtime
 - Buying fruit out of season
 - Dedicated fleet

Recommendations:

- Move to larger batch size.
- Ditch JIT and produce to forecast to smooth production and overtime.
- Buy fruit in season.
- Consider outsourcing transport.

Key underlying problem:

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

How do you gently tell the client that her \$1MM new computer system is a bad decision and a sunk cost?

Bonus:

ID the potential problems with the workforce when your recommendations decrease overtime and affect their pay dramatically.

Let's Go!

Your client, Let's Go!, is a publisher of travel-related books. Recently, profitability of the firm has been declining. They have hired you to investigate. What factors would you look at? What recommendation can you provide?

ADDITIONAL INFORMATION

- Books cover a wide range of countries. Books are generally about how to travel on the cheap.
- Written by the Let's Go! staff – primarily students (all from the same school) whose travel expenses are reimbursed.
- Target segment is low-cost travelers.
- Nothing about the manufacturing process is relevant.
- Distribution: book stores
- Promotion: word-of-mouth
- Costs
 - Fixed costs have not changed.
 - Variable costs are increasing, particularly labor costs: Why?
 - Other variable costs are unchanged.

Competition:

- Many regional players own a small share of the market (very fragmented), especially in the West (college towns).
- There are a few big players, but none that dominate the low-end segment as effectively.

SOLUTION ANALYSIS

Students are learning to game the system, and are maximizing the expense reimbursement system (VC increasing). Regional players out west are growing, sapping market share (revenues declining)

Recommendation:

- Change the reimbursement formulas: tighten controls, consider a stipend-based system.
- The western market is fragmented: many steps available to increase presence: list and weigh pros and cons.

Department-store Product Costing (Bain)

Our client is a large department store chain. The CEO knows that men’s dress shirts are much less profitable than the rest of his product lines. He believes that if they were evaluated on a fully loaded basis that they would in fact be unprofitable. He is considering taking action to correct this problem.

What would you want to know to determine whether or not the CEO is correct?

What corrective action would you recommend?

Interviewer Instructions:

Share the information on the table below (share all of it at once, in written form if you like) only when some information in it is requested. Interviewee should ask about SG&A or for detail on other allocated costs and then receive the entire table. If interviewee asks for clarification on the phrase “fully loaded”, respond with “including all costs associated with the product.”

	Men’s Dress Shirts	Men’s Department
Sales	\$1,000	\$5,000
Gross Margin	25%	35%
SG&A	?	\$400
Operating Costs	?	\$300
Inventory	\$150	\$1,000
Square footage allocated to product or department	250	1500

Additional Information:

SG&A includes floor sales staff costs as well as promotional and advertising costs. Operating Cost mainly comprises cost of maintaining and stocking inventory. The store can be thought of as similar to Nordstrom’s or Macy’s.

Debrief

The information in the table was shared (in form of PowerPoint slide) only after a specific request was made for elements of the table.

Goal is to logically allocate costs and then determine appropriate action. Essentially, it is a cost accounting problem. Good deal of leeway given logical arguments in allocating and suggested actions.

Operating Costs - These relate to inventory. Could argue that number of styles/sizes should require more than the department norm. However, inventory as % of sales is 15% as opposed to 20% for the department. Maybe we allocate less instead if we use this metric. Real data is probably more sound approach.

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

SG&A – Promotions and sales. May argue that shirts are promoted more or less than other items. My preference was that they are not “features” in ads (usually suits and shoes instead).

May consider dress shirts a necessity purchase that drives traffic and thus sales of complementary items (t-shirts, ties). Also, sales time for dress shirts likely less than that of suits and shoes. This leads to a lower percentage allocation of SG&A. CEO should perhaps reassess.

Suggested action should recognize importance of dress shirts in the value proposition for a department store. You cannot afford to not have them in your offering. Also should pick up on complementary relationship among shirts, suits, ties, etc.

Be sure not to deduct inventory as a cost. This is a balance sheet item.

Sales per square foot is an important measure for retailers and should be mentioned. This measure reflects opportunity costs of offering one product on your shelf instead of another.

Recommended actions could include private label, vendor change, move up or down scale, promote more or less,

Trucking Profitability

A regional trucking company has hired you because they are slowly losing money. Why are they losing money and how do you fix the problem?

ADDITIONAL INFORMATION

- Located in North Carolina and serving a few large markets (NY, Atlanta, Pittsburgh, Chicago)
- They ship two types of items: specialty furniture and commodity items
- The furniture trucking market:
 - Loyal clients
 - High profit for the trucking company
- The commodity market:
 - No loyalty
 - Losing money to compete – eroding your client’s profit margin
- Sales force: located in major markets to drum up business (typically commodity orders)
- Competition is increasing as a few large national trucking companies have entered their market.
- Logistics of delivery
 - Furniture shipments are generally one way, i.e. they don’t have any furniture to haul back from their delivery points and must return empty if they want to ship furniture exclusively (way too expensive to run a truck empty)
 - The sales force finds stuff (typically commodity items) to backhaul to utilize the empty truck space
 - They could lease the empty space to a national carrier but they are the competitors and the revenue is lower than their current commodity trucking business

SOLUTION ANALYSIS

A typical way to look at this problem is Profit = Revenue – Costs. The revelation that the commodity business is losing money and pulling the profit down appears to be a key piece of information. It leads you towards the idea of either getting rid of the commodity trucking, and running the trucks empty one way, or forming an alliance with a national carrier. The problem is that running the trucks empty is way too expensive, and would cause you to lose even more money, and the revenue from an alliance is lower than the revenue you currently enjoy to truck commodity items around. So what do you do?

A good candidate should ignore the lower revenue. Revenue is not necessarily the issue, what is the potential profit? By going with an alliance the company would be able to substantially reduce their sales force (costs) as they mostly drum up commodity business, which would be unnecessary. The lower revenue is offset by an even larger drop in costs.

Phone-repair Profitability

Your client is a telephone company trying to reduce the costs and improve performance in the repair service operation. How do you approach the problem? How would you go about implementing your solution?

ADDITIONAL INFORMATION

- The company has 5 regional centers in 5 different cities and a corporate headquarters.
- You have been brought in through a process improvement initiative currently underway at corporate. The regional centers are not aware that their repair service is being examined.

SOLUTION STRUCTURE

Begin with the 3 C's to get details about your client and the nature of the competition in the industry. Ultimately you can go through a profitability analysis to try and drill down to the root cause of the high costs in repair service. Don't forget to outline a process to follow to implement your solution.

SOLUTION ANALYSIS

This is a regulated industry with a unionized labor force that will play a large role in your analysis.

Generally, the utilities industry has faced very little competition for local service and has thus had almost no need to institute and track performance measures with its management control systems. You will almost certainly have to develop new baselines for measuring performance in the repair service department within the company. Some possible measures could be: time to repair, time to dispatch, customer satisfaction expressed through callback, etc.

If these baselines are new to the company, your team will need time for these baselines to generate information that can be compared with other "best-of-class" companies in this industry.

The profitability analysis should touch upon recent capital expenditures, deteriorating infrastructure, high wages, escalating repair materials costs, low productivity in the department; anything that might contribute to high costs in repair service.

Don't forget the implementation part of this question. Basic ideas here include developing a pilot program to test out your solution and selecting a pilot site, getting buy-in and cooperation at the regional center level, establishing objective measurements to gauge the success of the pilot, and finally, developing and presenting a corporate-wide rollout of the proposed changes.

Changing the culture of the regional centers is going to be a huge barrier to success in this project. This component is largely the function of the "Change-Management" area of the firm. Issues here might be union wage pressure, job security, changing the demands on the workforce, gaining commitment from informal leaders that can champion your solution.

Insurance Profits

An insurance company has two annuity products: a fixed annuity product and a variable annuity product. These products have a target ROI of 15% but are only earning 5% right now. The fixed annuity product pays the clients a fixed income stream at fixed interest rates. The variable product has returns that vary with the market. The market is doing great and the company is wondering how to improve their returns on these products. How would you go about thinking about this problem? What are some potential areas for improvement?

ADDITIONAL INFORMATION

- On the fixed product, the company makes money based on the spread between the fixed income stream they're paying out and the money they're earning on the investment in the market.
- On the variable product, the company earns money through charging fees.
- The company sells 20% of the fixed product and 80% of the variable product.

SOLUTION STRUCTURE

Start with the 3Cs to understand the risk profile of the company, the nature of the competition it faces, and the customers that buy these instruments. Then move to a profitability analysis to identify where this company is losing money. If you are not familiar with annuity products, you should ask sufficient questions to ensure that you understand how the products make money for the insurance company.

SOLUTION ANALYSIS

- The obvious answer seems to be that they need to get into higher paying investments to achieve higher market returns. However, keep in mind that they have fixed annuity product they are committed to paying.
- The company could calculate the duration of their liabilities (the fixed stream of cash outflows) to ensure that they have adequate assets to support their liabilities.
- The company could also focus on cutting costs to raise their returns. They have marketing (ads, pamphlets, phone personnel), broker fees, sales personnel, transaction fees. The company does all of this in-house. They could probably outsource and have these services performed more cheaply.
- The fees the company charges for the variable rate product could be compared to the competition. If they are too high, the company may want to lower fees to get a higher volume of customers. If they are too low, they may want to raise rates to be more competitive. Chances are, the existing customers with an annuity probably won't withdraw their funds.
- The mix of products could also be considered. The company only earns a flat fee on the variable product. The amount of return made on the fixed product can vary widely, but has the potential to make a very good return with smart investing. The company should shift marketing and sales efforts to the fixed product.

Since more and more people are investing in 401K plans and other retirement plans, this could be a potentially large target market for a secure fixed annuity product.

Rail-freight Profits (Bain)

Our client is RailCo a division of Diversco, Diversco is a diversified holding company with numerous businesses. Traditionally, RailCo has been the “Cash Cow” of the portfolio. They are a rail freight company. Sales in 2000 were \$1 Billion and earnings were \$50 million. However, in 2001, the firm swung from a \$50 million profit to a \$50 million loss. Management took aggressive action to correct the problem and assured the Board that this was an anomaly and would not happen again. However, in the first two quarters of 2002, the company has lost \$25 million.

Why is RailCo. losing money?

What should they do?

Case Interviewer Instructions:

If the candidate drifts into portfolio or synergy questions relating to Diversco, steer them back to RailCo. They can ignore the other firms in Diversco’s portfolio. RailCo is the problem.

Additional Information:

- Feel Free to Share in conversation.....
- Railco carries freight over rail to businesses. They are not a passenger railway.
- They own their tracks and do business regionally with little direct rail competition.
- The firm adopted new depreciation policy which lowered depreciation of assets slightly.
- Share when asked....
- The shipping industry (this includes rail, trucking, marine, and air) growth rate is projected at 3% for the foreseeable future. Prices are flat in real terms.
- The company negotiated a very competitive contract with labor that took effect late 2001. The negotiated wage rates are lower than the industry average.
- Fuel costs have been stable.
- Company serves two types of customers: direct, larger firms and brokered smaller firms.
- Direct customers number 800. Brokered customers number 5000.
- Brokered customers come to RailCo through an aggregator that organizes smaller freight shipments. They typically take 1.25% as a commission.
- Direct customers account for approximately 80% of RailCos revenues.
- Sales persons don’t know what the problem is, nor do shipping managers.
- Direct customers are shipping less; moving to trucking.
- Very few customers have been lost.
- Shipping revenue for direct customers is down 10%.
- Fixed costs represent 90% of RailCo’s cost structure.
- Slight reduction in variable costs from 2001 to 2002.

Debrief

The information in the opening was presented in slide form. Information was shared fairly begrudgingly.

This case is easiest solved as a systematic profitability case. Questions about variable costs (fuel for example) come up dry. Rule them out quickly and ask about fixed costs. Interviewee should know that depreciation (allocated cost of owning tracks, engines, and cars) is a fixed cost and that labor may be effectively a fixed cost (especially if there are contract impediments to layoffs). These have not gone up however. What is up?

Direct shipping revenue is down 10% = 80% X \$1 Billion = \$80 million. Since costs are fixed, almost all of this goes to the bottom line. Swing in profits is \$100 million and you have found 80% of the cause in revenue drop.

Important to pick up that trucking is cause of problem. Keeping Porter Model running in the background is good to pick this up. Industry growth rates show relative health (3% growth) but this includes trucking.

Appears that problem is that competition from trucking is causing revenue drop, which destroys company's ability to cover fixed costs.

Other insights:

- Impact of JIT on rail freight is negative. Have to get smaller loads out quicker, not good for rail.
- Rail probably rarely gets shipment directly to, say, a semiconductor plant. Likely always had to integrate with trucking in old environment to some degree.

Suggested Actions:

- Divest
- Partner with or buy trucking firm.
- Partner with competitors to fill return train loads once load is dropped off.
- Sell assets and focus on most profitable lines or customers.
- Other...

Airline-route Acquisition

A major airline is considering acquiring an existing route from Tokyo to NY. How can it determine if the route is a good idea?

SOLUTION STRUCTURE

Profitability analysis looks like the best approach. Simply determine if revenue less costs equals a positive profit. Then, analyze the factors that go into revenue and the factors that go into cost to come to a conclusion.

SOLUTION ANALYSIS

- Occupancy rates and expected prices will determine revenues. Both of these will be determined by expected demand, the competitive environment, and the extent to which our client could win over passengers from competitor routes. Mentioning fare wars and competitor reaction is a good idea. Looking at competitor occupancy rates and fares could be used as a point of research.
- Operating costs will depend on expected fuel costs, incremental costs for landing rights, etc. Most airplanes are fixed costs because they are owned or under long-term leases. However, is there another route that is more profitable that these planes could be dedicated to? It is also very important to estimate the cost of cannibalization of existing Tokyo-LA, LA-NY routes. Will these routes be continued at the same level of operation? And last but not least, it is important to note that losing passengers to cannibalization is better than losing them to competitors.

Cable Operations

Two years ago a venture capital company purchased a cable TV system that had access to 3 million households in Arizona and New Mexico. The VC firm was attracted to the extremely large subscriber potential, and the potential for considerable return. Despite their best efforts, they have failed to turn a profit in the past three years. You have been hired to determine if they can turn a profit or if they should sell.

ADDITIONAL INFORMATION

- The cable system features fiber-optic lines to each street corner, but not yet direct to the home.
- Fixed costs are extremely high due to the distance between cities in the system.
- The debt and maintenance costs are also higher than system in metropolitan areas.
- The current system is only at 43% capacity (# of subscribers) vs. a 63% industry average.
- Low subscription rate (43%) is not attributable to life-style or cable programming. People in the service area actually watch more TV than the national average; the programming offers what they like to watch.
- The cable company covers an even mix of small city urban, suburban and rural areas.
- The population is rising faster than the national average, growth is suburban.
- There are 4 network stations (reaching the whole area), and 9 independent regional broadcast stations. Also, 17 percent of the residents have satellite systems in operation (DirecTV, EchoStar, etc).
- The quality of the reception of local broadcasts: for those in the immediate area, signal is very strong.
- The signal is free, but those subscribing to satellite services pay a monthly fee equal to that of the cable service.
- It takes 10 paying customers per sq. mile to break even, at least 20 potential per sq. mile to even consider entering the market. Although the area averages 20+ residents per sq. mile in rural areas, total actual subscribers is < 10.

SOLUTION STRUCTURE

- At a minimum, the answer should:
- Analyze current revenues and cost structures – do revenues > costs?
- Analyze the market potential of the area – is there growth potential?
- Analyze the competitive situation and substitutes – is this product/service a winner?
- Provide recommendations – establish a clear decision rule

COSTS

Fixed costs associated with laying cable
Variable costs of new customers (equipment)
Maintenance of the cable system
Debt associated with fixed costs
Franchise fees to municipalities

REVENUES

Subscribers' monthly fees for basic services
Subscribers' fees for premium channels
Subscribers' fees for other premium services
Advertising fees from commercials
Commissions from shopping channels

SOLUTION ANALYSIS

This is a straight profitability analysis to determine whether or not the VC firm should continue or withdraw. GOOD answers identify a decision rule that includes an analysis of: (1) profitability – whether or not the venture is profitable (2) adequate return – whether or not the return exceeds the VC firm’s opportunity costs (3) management expertise – whether or not the client has the managerial skills to make the venture succeed.

High fixed costs are overwhelming the current revenues, and the current subscriber rate is low. Good answers should investigate why and if it can be fixed. Good answers also might identify the insight that distance between customers is important. The rural character of this subscriber area means the sell-rate must be higher since there are fewer potential customers per sq. mile. Outstanding answers might uncover that as the cable TV business evolved, many rural residents already have satellite dish systems that afford multiple channels. What would it take to win these customers over, or why can’t they be won over.

Real-estate Bank

A bank that loans to real estate developers has a lower than industry average return. You are asked to help improve profitability. How would you approach this problem?

ADDITIONAL INFORMATION

- Bank borrows from the Fed at a rate of 6% and lends money at 10%.
- Major source of loss is the loan officers at the rate of \$200,000 each per year.
- Each officer spends the same amount of time on each loan, no matter what the size.
- Variable costs increase with the number of loans.

SOLUTION ANALYSIS

The bank is taking too many small loan applications. They should reduce the amount of time on small loans, increase the rate for small loans or exit the small loan business entirely.

What is the breakeven volume of loans each officer must process?

Revenues + spread. Costs are split into variable costs (chargeoffs) and fixed costs (salary). Given that the spread is $10\% - 6\% = 4\%$ assume chargeoff is 3% (interviewee may have to estimate).

Therefore at breakeven:

$$4\% (X) = 3\% (X) + \$200,000$$

$X = \$20 \text{ million.} = \text{volume of business each person should handle each year.}$

Timber Profitability in Canada

You have been hired by a Canadian timber company that processes trees from the forest to timber products (boards, etc.). They have been making more profits than their direct competitors and do not understand this phenomenon. You have been hired to find out why.

ADDITIONAL INFORMATION

- In Canada, the timber companies own their own natural resources (forests).
- There are many competitors in this industry.
- Timber company prices are the same as their competitors.
- Use same equipment.
- Have the same labor skills.
- Wood is the same quality.
- There is not much of a transportation difference between the forests, the mills, and the point of sales

SOLUTION ANALYSIS

Think of profit as a cost vs. revenue issue. It turns out that lumber products industry is a commodity industry. So you may want to think about the steps in the processing flow and analyze differences between competitors at each step.

On average, the timber company has thicker trees in their forests than their competitors. They can get a higher yield for the same amount of processing time, meaning a lower processing cost per unit.

Credit-card Profitability (McKinsey)

Your client is the president of a bank. The credit card product of the bank has been profitable for the last 15 years. However, profits have declined 25% over the last 3 years. Three years ago profit was \$100 million / year. The Current credit card market is saturated.

Situation:

How to get bank credit card profit back to \$100 million / year?

What caused the drop?

How do we counteract it?

What new products can be offered?

Question:

How would you structure your investigation and solve the problem?

Information:

Product	% of Bank's Product	% of Market products
Reward Cards	0%	33%
Affinity Cards (Picture)	0%	33%
Credit Cards*	100%	33%

* No points and no real rewards

Getting Customers

Regional Focus – Mid Atlantic & NE – believe they understand the risks associated with this customer group

1/5 customers acquired through the bank branches – signed up during visit

4/5 customers acquired through direct mail

Bank Costs

Cost	% of Bank Costs	Comparison
Marketing & Customer Acquisition	35%	High (10%)
Fixed Cost (processing)	40%	Average
Credit Loss	25%	Low

Cost Per Acquisition (CPA)

Very high – 50% higher than competition

Cost per solicitation is average.

Solution:

- What caused the drop in profit?
 - Saturation
 - Competition
 - Substitute products
- What products are people using?
 - Segments
 - Access

- Why
- Where do banks make their money?
 - Revenue
 - Costs
 - Risks

Hit rate is low, volume is higher.

Answer:

- Grow current credit cards in new regions of the country.
- Offer points or additional products.
- Use information to better target customers to lower CPA.
- Should try and quantify these new markets
 - Can they actually grow revenue by 33% to reach \$100 million?
 - Is this where their competitive advantage lies?
 - Should they be in this business?

Bank-loan Operations

A bank has a loan issuing operation that requires the following steps:

- loan application generation at branch bank
- complete applicant background check at branch bank
- send application and background check to loan processing office
- update/recheck background check (takes much less time than original check)
- loan is approved or denied

The bank is considering getting rid of the first background check and only relying on the loan processor's check to speed their service for customers. If the loan processor does the whole check with a new software system, the check takes 1 additional hour at the processor's office per application.

- The average profit margin per loan over time is \$0.20 per dollar loaned for a "good" loan (loan is repaid)
- The average marginal loss per loan over time is \$0.50 per dollar loaned for a "bad" loan (loan is not repaid)
- 50% of the applicants pass the first background check
- 90% pass the second

Should the bank proceed with the new system?

ADDITIONAL INFORMATION

- Cost of branch bank background check = \$100/loan (eliminate this cost with the proposed system).
- Processor's labor hour costs \$60 (at branch and at processing office).
- Number of loan applicants is only 1,000 per year.
- Average value of loan is \$10,000.
- The proposed processing program has a 40% acceptance rate.
- Additional cost of new program is \$50 per loan applicant.
- The original loan processing system has 10% bad loans.
- The proposed system has 5% bad loans (it is more discriminating).

SOLUTION STRUCTURE

This case obviously tests your analytical skills. Do not answer the question without paper or calculator to impress the interviewer if your math skills are poor, since this strategy could easily backfire, making you look stupid. This case is straightforward, but make sure that you have all the information necessary to develop an answer.

You should calculate a comparative profit per year for the original and proposed Systems.

Here's an example:

Original System:

$(1000 \text{ applications}) \times (0.45 \text{ loans per application}) \times ([90\% \text{ good loans} \times \$0.20 \text{ per dollar for a good loan}] - [10\% \text{ bad loans} \times \$0.50 \text{ per dollar for a bad loan}]) \times (\$10,000 \text{ per loan}) = (450 \text{ loans}) \times (\$0.13 \text{ expected per loan dollar}) \times (\$10,000 \text{ per Loans}) = \$585,000 \text{ expected profit}$

But this method costs an additional \$100 per loan application:

$\text{Profit} = \$585,000 - (1000 \text{ applications}) \times (\$100/\text{application}) = \$485,000 \text{ comparative profit}$

Proposed System:

$(1000) \times (0.4) \times [(95\% \times \$0.20) - (5\% \times \$0.50)] \times (\$10,000) = \$660,000$ of profits

But, there's an additional cost of 1 hour per application at the processing office profit = \$660,000

- $[(\$60/\text{hr}) \times (1 \text{ hr/application}) \times (1000 \text{ application/yr})] = \$600,000$

And there's the cost of the new program:

Profit = \$600,000 - $(\$50/\text{application}) \times (1,000 \text{ application}) = \$550,000$ of total comparative profit

SOLUTION ANALYSIS

Based on the raw data, the bank should progress with the new system. However, you need to discuss whether the bank can make the change. Mention any retraining and system installation costs that are necessary to change the system, and don't forget to evaluate the cost of the new system itself. Also you may want to mention that a faster loan processing speed may help the bank get more business.

Mass-merchandise Advertising (Deloitte)

Your client is a major mass merchandise retailer in a turnaround situation. To improve profitability and win back Wall Street confidence, the retailer is pursuing significant cost reductions.

The Advertising department has been charged with reducing Sunday circular advertising costs by \$25 million in 2001. This represents a 10% cost reduction and translates into 5 million circulars per week from a baseline of 50 million.

The Regional VPs responsible for store sales believe that the distribution of Sunday circulars to individual homes is strongly correlated with sales. They will push back on any cuts in their individual regions.

The industry standard for coverage (circulation divided by households in a given area) is approximately 65%. However, at this retailer, coverage levels in individual markets and individual zip codes vary widely from this norm.

Finally, the CFO is one of your executive sponsors and has set expectations for immediate cost reductions, as well as a longer-term sustainable plan to maintain Sunday coverage levels in the future.

Key Information to Consider

- Sunday circulation is purchased at the “market” level for each of 500 US markets. Each market is supported by hundreds of newspapers capable of distributing the Sunday circular. When buying coverage from a newspaper, a retailer typically selects the specific zip codes for which distribution is desired.
- You have access to Sunday circulation data for the entire US that identifies the number of circulars delivered by each particular newspaper to each zip code, and the cost of distribution. In addition, you’ve been given population and demographic information for each zip code and market.
- Over the past few years, circulation decisions have been driven by those regions and stores that “scream the loudest” for additional circulation.
- The retailer has a robust customer database captured from check and credit card data that identifies where customers live and where they shop.

Key Interview Question(s)

- How can you address the CFO’s demand for immediate and longer-term cost reductions?
- How would you identify which 5 million pieces to cut while being cognizant of the impact on sales?

Possible Recommendations & Key Points/Issues Candidate Should Cover:

- Question 1: “Quick Hits” followed by a rational approach to assigning circulation by market
- Question 2: Overall Approach & Measurement
- Quick Hits-Immediate Savings

- Measure the productivity of the zip codes. Zip code metrics could include: high coverage, far distance from the store, low sales per households, high advertising expense/sales ratio, low sales/circulation ratio.
- Create frequency distributions to evaluate the metrics. Eliminate coverage in the most unproductive zip codes, particularly zip codes that are on the tail end of several of these metrics.
- The RVP's will be more likely to agree to cuts in zip codes where sales are already low.
- Longer-Term Coverage Determination Model
 - Prioritize markets based on quantifiable metrics that indicate how valuable/potentially valuable they are to the retailer. Such metrics might include: sales per household, competition indicator, total sales (market size) and market growth.
 - Assign target coverage levels based on this value.
 - Within each market prioritize zip codes based on the value to the retailer.
 - Buy coverage with this prioritization as a guideline.
- Implement a Sales Impact Tracking Mechanism
 - Monitor zip codes/markets where cuts have been made to see how sales are impacted

Case Wrap-Up

- Quick hits were identified and implemented first to start the ball rolling with savings. This accounted for around 15% of the overall reduction in Sunday circulation.
- The longer-term approach involved a market scoring methodology that would help us assign target coverage levels to each market. With target coverage levels based on sales per household, market potential, and competition, instead of perception, the team was able to identify cuts that were justifiable. Understanding market and zip code priorities helped the team identify the additional 85% savings.
- The team worked with the client and an outside print media-buying vendor, to make specific (which newspaper?, how many copies?) recommendations by zip code and quantify the savings.
- Even though the target coverage levels reduced coverage significantly in some of the largest markets, the client moved forward and made the cuts since the scoring model showed that these markets may not be as valuable as previously thought.
- Sales tracking has just begun. So far the impact of the cuts has been minimal.

Parcel Delivery Network

The client is the largest package delivery service in Canada. During the past 30 years, the firm has established a network that allows it to deliver parcels to "every address in Canada". Until last year, competition had been non-existent and profits were very strong. Starting about 15 months ago, a new company began parcel pickup and delivery to three (and only three) Canadian cities - Montreal, Toronto and Vancouver. Although overall parcel traffic has declined by only 10% for our client, profits have declined by almost 30% from last year's number. Outline your hypothesis for the alarming decline in profitability.

Explain what analytical measures you would use to diagnose the problem and where you would gather the data necessary to perform the diagnosis. What approach would you offer to our client for the restoration of reasonable profits and what strategy would you employ to prevent further deterioration of profits?

ADDITIONAL INFORMATION

- The new entrant has a fleet of older semi-trailer trucks that run between the three cities. Our client has a very new fleet (more efficient) that services all of Canada. The client's fleet mix has been optimized such that efficiency and capacity utilization are high considering the network of locations covered.
- The new entrant charges approximately 50% less than our client for delivery between the three cities that they cover.
- Our client and the new entrant charge by the lb-mile. One pound carried one mile is a lb-mile

SOLUTION STRUCTURE

Start off with a profitability analysis to pinpoint where the problem lies. Then, use the 3 C's to see what about the market is causing the problem. Finally, take a look at the costs of this industry: does one of these firms have an inherent advantage? Are certain customers better off than others? This is a complex case, so take your time and keep digging.

SOLUTION ANALYSIS

- The new entrant has initiated service in the three markets where economies of scale are present. Because a large number of packages move between these three cities, larger trucks and efficient distribution centers make such limited service very profitable.
- A more important facet of this case is how the interviewee reaches this conclusion. He/she should use a cost measure like \$/lb-mile to explain that the major city routes have always subsidized delivery to smaller cities and towns.
- Realize also that our delivery to all addresses in Canada is a tremendous advantage to our client. Businesses that ship to customers outside of the major cities cannot afford to lose our service.
- Employ a new pricing strategy that will increase charges for rural delivery. Note that this may invite the new entrant to begin rural delivery.
- Develop long-term contracts with major business clients who use our rural delivery capability. Offer a flat delivery rate only when the business agrees to use our client for rural and city delivery.
- Search for synergies with other companies that also deliver to rural areas (this client actually paired with several grocery/beverage/snack delivery companies in the most rural areas).

Charge-card Competition

American Express (Amex) is a consumer services company providing a variety of services to its cardholders. Its primary service is its well-known charge card, that enables “members” (i.e., cardholders) to purchase goods and services from millions of merchants that accept the card. Unlike other credit cards, cardholders are required to pay off their accrued balances each month, and interest is not charged.

Recently, Amex has faced strong competition from new credit cards entering the market. They have considered dropping the \$55 annual fee. What are the economics of such a decision, and should they drop the fee or not?

SOLUTION STRUCTURE

- Determine how American Express makes money.
- Evaluate the pros and cons of dropping the annual fee.
- Explore options for replacement revenue.
- Make a recommendation.

Revenue Drivers:

- \$55 x the number of members (could round to \$50 for simpler math).
- Q: How many people have the American Express Card? A: What is your best estimate?
- The number of cardholders is approximately 14 million (you can round to either 10 or 20 to simplify the math).
- No additional revenues from consumers, since balances are paid monthly. (Amex doesn't enforce late fees)
- 1% merchant fees for all transactions from merchants honoring the Amex card.
- Est. annual transactions are \$1,000.00 per cardholder. ($\$1,000 \times 1\% \times 10\text{mm} = \100 million)

Issues to be addressed:

If the annual; fee is dropped, Amex loses \$55 x number of cardholders.

Amex would have to generate new or additional revenues to overcome the loss of annual-fee revenue.

Using a conservative estimate, lost revenue will be $10\text{mm} \times 55 = \550 million .

Q: Will consumer spending increase sufficiently to generate merchant-transaction revenue?

A: Not likely, since cardholders must still pay-off balances at the end of the month.

Therefore, must increase number of cardholders to increase merchant-transaction revenue.

Q: Is it possible to sufficiently increase the number of cardholders? A: How would YOU estimate this?

- The average annual transaction revenues are $\$1,000 \times 1\% = \10 per member.
- Therefore, the number of new customers required to overcome the revenue loss would be $550\text{mm}/10 = 55 \text{ million}$
- Now, is it possible for Amex to gain 55 million new members this year? Not likely, is it!
- Also possible to raise transaction fees: more revenues, but must address consequences for vendor relations.

Q: Does Amex enforce late fees? A: No, but most credit cards charge \$20 - \$25 for late payments.

Should Amex charge interest and allow card-members to hold a balance?

- Would the new revenues from interest offset losses from dropping the annual fee? Depends on rate of interest and average balance. Q: What is the average APR and average monthly balance? A: You tell me. (use 15% and \$500)
- If average balance = \$500 at ~10% APR = \$50 per member x 10 million members = \$500 million annually.

Recommendations

- Based on economic analysis, don't drop the fee. It is difficult to replace the lost revenue.
- While some options exist (i.e., charging interest on balances) the consequences should be explored.
- Amex could issue an interest-driven credit card under a new brand name (in fact, Amex did so with the Optima card).

SOLUTION ANALYSIS

- The client specifically inquires about the economics of ending the annual fee. Good answers should focus on this issue, and should provide recommendations based on the analysis. Good answers should explore the issue of rival credit cards entering the market, how their product offering is similar or different from the American Express card, and the strengths and weaknesses of American Express's position. Alternative revenues should be explored. One option is charging interest and allowing cardholders to hold a balance. Answers should address how this would affect the AMEX brand, i.e., the consequences of becoming a just another ordinary credit card. Another is enforcing late fees, or raising merchant fees. The consequences of these should be addressed also.
- Outstanding answers should additionally explore the effects of competition among credit cards for revenues, and recommend how Amex could increase revenues without dropping the \$55 fee. For example, comment on the quality of new members acquired, since competition is forcing many credit card companies to issue cards to riskier consumers.

Oil-drilling Investment

The year is 1950. You are Standard Oil Company of New Jersey (now known as ExxonMobil), a company that excels in the refining and marketing of petroleum products. The success of your company depends, in part, on your ability to maintain adequate levels of petroleum supply. Following national energy shortages experienced during WWII, it is clear to your company that securing a source of foreign oil is key to maintaining your supply, and hence your market share. You have been approached, separately, by two other petroleum companies to enter into joint ventures. One company, Gulf, is interested in establishing drilling rights to a large field located in the small Arabian-peninsula nation of Kuwait. They have offered you a large stake in the venture. A second oil company, Royal Dutch/Shell, has offered you an equally large stake in a venture to establish drilling rights to a large field located on the border of Iran and Iraq. You do not have the resources to enter into both ventures. Which one do you choose and why?

ADDITIONAL INFORMATION

To some of the interviewee's questions, reply with "Explain how the answer to your question would determine which partner is preferable."

Some variables and information to consider when comparing Kuwait vs. Iraq

- Political stability and risk (domestic politics) – both areas, as of 1950, are unstable states. Kuwait's government is currently more stable, but the head of state is very old.
- Political stability and risk (International) -- Kuwait does not have as many border disputes as Iraq, and both have a tradition of working with foreign developers. Kuwait invited developers into the country around 1912.
- Legal/Regulatory environment: Legal risk due to market instability (legal foundation to enforce contracts and protect investments) – both areas have good legal systems, but law is dependent on the stability of the government. Risk is considerable. Few regulations exist in either country.
- Socio-cultural environment – are skilled workers available or will they be imported? In both countries, skilled labor is unavailable. Both countries are in favor of foreign oil development, but there exist elements against the presence of foreigners, and against perceived economic exploitation.
- Infrastructure (Ability to get product to market) – Both countries have significant access to ports and newly developed pipelines (that cross neighboring country's soil)
- Infrastructure (Ability to extract oil) – This is the most significant cost to you, since the infrastructure does not naturally grow in the desert. Oil does, but you'll have to find it.
- Human Resources and Management Talent – your company has the talent, but lacks experience in the Middle East.
- Other options – can you go it alone? – You need oil, where else would you develop it? The costs and risks are too prohibitive – assume a joint venture/strategic alliance is necessary.

RDS vs. Gulf

Both have experience in the Middle East. Both companies are comparable in every way, but RDS is much bigger, and has its market focus in Asia and Europe. Gulf is a US company focused in the US and Europe. Both seek a long-term partnership. RDS has experience with joint ventures (in Asia), both good and bad.

SOLUTION STRUCTURE

Good answers will outline the conditions that make a joint venture workable. There is little information from which to base a rational choice, so the answer matters little. Instead, focus on defining decision rules.

SOLUTION ANALYSIS

- What are your strategic objectives?
- What are the variables affecting the decision?
- Determine the decision rule for whether to go or not go.
- Examine and compare the offers: which of your objectives are fulfilled or not?
- What are the consequences of joining; what are the consequences of not joining?
- Provide implementation and exit strategies, and other conditional provisions.

Direct-marketing Strategy

Your client is the premier direct marketing firm in the United States. This firm also owns divisions dealing with software development, marketing research, hotels, car rentals, real estate and related, tax and financial advisory services, and many others. Your client is confident these subsidiaries achieve considerable overall synergy and provide the parent with expanded opportunities for direct marketing. Your client is also confident the business fundamentals are very sound. The problem they face is that their stock price has been seriously affected by a recent accounting scandal. Although the accounting problems have been cleared up, investors are wary.

In its membership business, your client markets memberships in shopping, travel, auto, credit protection, and other personal services. It does so by off-branding its products to banks, credit unions, credit cards, clubs, and many other organizations. Its primary source of revenues in this business is membership fees. Its distribution channels are direct mail, telemarketing, the Internet, and America Online. The Interactive division also operates a number of E-commerce sites that generate memberships, and some advertising dollars. Management has placed a number of important initiatives on hold due to lack of financial resources, and due to a lack of management focus resulting from recent problems.

ADDITIONAL INFORMATION

- The subsidiaries are recent acquisitions, most within the last two years.
- The company as a whole formed as the result of a merger between two equal firms.
- The business fundamentals are very sound; but investors may not believe the numbers.
- The core business is memberships (selling the auto, travel, shopping, etc, service products).
- The core competency is effectively leveraging subsidiaries and marketing partners for cross-marketing opportunities to sell memberships; these are yet untapped due to diversion of management focus.
- There is competition within sub-categories (i.e., your client competes with AAA for auto clubs services) but little competition at the scale at which the client operates; there are few players in the national market.
- Prices of membership services are stable (recent price increases did not affect membership flow).
- Membership flows (how many people join or quit) have remained constant; memberships are increasing rapidly.
- The current situation is such that the individual pieces of the firm are more valuable than the firm as a whole. i.e., the firm is currently undervalued. But this is due to a lack of investor confidence in the numbers produced by the company resulting from the recent problems.

SOLUTION STRUCTURE

- Determine what drives investor confidence.
- Assess the client's situation with respect to these variables.
- Determine what the client can do to affect these variables and offer options.

What drivers affect investor confidence?

- good management team in place – yes, now anyway.
- independent audits to ensure data is accurate – yes, completed.
- prospect for a good return on investment – absolutely, if you believe the numbers.
- therefore earnings that exceed expectations make a good investment – low stock price is a buying opportunity.
- or undervalued assets – particularly the software and interactive divisions.
- market climate in general.

What has management done with respect to these drivers; what can management do?

- The chairman resigned, as did several senior executives in the wake of the accounting scandal.
- Independent auditors completed a forensic analysis of the books – the books are now solid.
- The CEO has begun meeting with investors to sell a new strategic plan.
- The New plan involves spinning off the software, interactive, and other profitable divisions to enable the company to focus on key businesses.

This is a tricky case, because there are no obvious actions left out – most of what can be done is being done and being done well (excluding radical steps that make little economic sense). The key is capital market behavior, not the client. The market (these days) rewards Internet based companies, but has failed to perceive the value in your client's interactive and software divisions. A spin-off followed by an IPO may result in enough cash to fuel further investments. Action, perhaps, will restore overall investor confidence.

Margarine Brand-acquisition

Nabisco's Table Spreads operating company was looking to buy the Parkay brand of margarine. No manufacturing equipment or facilities would be included, only the brand name and formulas. From a financial perspective, the deal is a positive NPV project. From a strategic point of view, should Nabisco acquire Parkay (not a financial numbers case)?

SOLUTION STRUCTURE

3Cs Analysis

- Competition
 - Understand the competitive marketplace.
 - An oligopoly with Unilever (50% market share) and Nabisco (35% after acquisition)
 - The market is broken into three segments:
 - Health Unilever's Promise vs. Nabisco's Fleischmann's
 - Taste Unilever's I Can't Believe vs. Nabisco's Parkay (?)
 - Price Unilever's Country Crock vs. Nabisco's Blue Bonnet
 - This information should provoke the ideas of portfolio diversity. Why is that good/bad?
 - Retail prices:
 - Fleischmann's = \$1.79/lb.
 - Parkay = 1.29/lb.
 - Blue Bonnet = .89/lb.
- Customers
 - Nothing relevant for this case.
- Company
 - Breakdown by brand:
 - Fleischmann's: 50,000,000 lbs annual demand and 40 cents profit margin per lb. Market share declining at 3% per year.
 - Parkay: 150,000,000 lbs annual demand and 30 cents profit margin per lb. Taste category is increasing, but Parkay is currently decreasing. Investment in advertising can help.
 - Blue Bonnet: 300,000,000 lbs demand and 7 cents profit per lb. Market share steady.

Value Chain: analyze advantages/disadvantages of acquisition

- Procurement
 - Synergies of buying oil, containers
- Manufacturing
- Nabisco does not have capacity to integrate 150,000,000 of Parkay into their existing plant capacity. What are some options for getting around this problem?
 - Third-party manufacturing is not an option because of tight margins and high transportation costs.
 - Capital expenditures are not feasible because Nabisco has space utilization issues (not enough space in plants to add machines)
 - Solution: use customer price sensitivity to induce shifts in demand among the three segments. What direction would you shift these prices?

- Blue Bonnet has lowest margin and highest price sensitivity, therefore raise the price to reduce demand.
- Reduce Parkay's price point to capture some of the lost customers.
- Maintain Fleischmann's.
- Distribution
 - Current distribution center doesn't have enough capacity to house proper safety stock levels. An addition has to be made costing \$20 million. The payback period is 2.1 years. Is this a worthwhile investment?
 - Best answer: Realize that payback period is not the best measurement of a project's worth. Using NPV or DCF is better.
 - Another answer: 2.1 is an acceptable payback period, realizing that in a mature business, the consistency of cash flows makes it a strong investment.
 - Increased volume will also reduce transportation costs.
- Customers

Retail stores won't react negatively to the price change as their profit margins will also increase.

Gasoline Retail-operations

The sales force at Mobil is composed of college graduates, each of whom calls on about twenty stations. What should they talk about with the gas station owners?

The structure of the retail gasoline business is as follows:

- Mobil owns the gas stations while the station manager/owner owns the business.
- Mobil sells gasoline to the station at the wholesale price (DTW) while the station manager/owner sets the street price.
- Mobil makes a profit of about 10 cents per gallon.

SOLUTION ANALYSIS

Key Points by Interviewee:

Product: Gas is a commodity.

Promotion: Done nationally, not this group.

Distribution: Fairly automatic.

Price: Mobil does not set street price. How is street price determined?

Recommendations:

Mobil wants the street prices as low as possible (close to DTW), which increases volume.

Question: how does station make a profit?

Answer: Convenience store and auto care are high margin (but low volume). Sales force should help station owner to set up profitable convenience store and use low gas prices to attract volume.

Dessert Market-expansion

You've been hired by the Kraft Desserts Division Manager to help solve a problem with Cool Whip (the non-dairy dessert topping). Cool Whip has been a cash cow for Kraft. It has an 80% share of market, low production costs and extremely high margins. Sales of Cool Whip have been flat for the past three years despite aggressive sales efforts. The divisional manager believes sales have peaked (80 % share) and is ready to sit back and milk the profits.

Before presenting his recommendation to the company president he hired you to determine if there are:

- Opportunities to increase revenues in the US
- Opportunities to enter a foreign market

ADDITIONAL INFORMATION

- Cool Whip is 90% air, 10% water and chemicals.
- The manufacturing facility is only running at 70% capacity.
- Cool Whip owns a proprietary technology that allows the product “carry” a very high percentage of air.

SOLUTION STRUCTURE

- Explore areas to increase product sales in the US
- Explore alternate opportunities for increased revenues in the US
- Analyze the opportunities of entering a foreign market

SOLUTION ANALYSIS

- New Product Sales Opportunities
- Offer new flavors (cherry, strawberry, etc.)
- Suggest new uses (Arm & Hammer)
- Offer new packaging (pump, pressurized single serve, etc.)
- Explore new channels (food service, convenience stores, coffee houses, etc.)
- Co-pack with other products (pies, cookies, etc.)
- Other, other, other

The division head tells you these are all great ideas that have been attempted - what else?

- Alternate Revenue Generating Opportunities
- Sell or license the “air holding” technology to other industries-Insulation, Styrofoam, building materials, ships etc.
- Utilize the excess capacity to produce generic or private label version of the product

The division head tells you these are good ideas, what about foreign expansion?

Issues Involved in Entering a Foreign Market:

- Is there market potential for Cool Whip in foreign markets?
- What are the competitive factors?
- Can we supply product at an appropriate cost structure?
- Do we have any foreign presence to take advantage of?

How might you determine the answer to these issues?

Area of Analysis:

- Look for markets with a high incidence of dessert consumption (France)
- Research the existence of competitors or substitutes (ice cream, other toppings)
- Conduct consumer research to determine if consumers would accept/try the product
- Research Kraft's current manufacturing, distribution marketing capabilities in these markets.

Recommendation:

Invest in addressing these issues and make a recommendation to the president.

Cheese Marketing

Frank's cheese company has been producing very high quality cheese for distribution and sales in the upper East Coast for over thirty years. Their main competition over these thirty years comes from Joe's cheese company, which also produces very high quality cheese.

These two competitors have had a friendly rivalry over time and each holds about a 30% share of the market. Recently, Frank and Joe have seen their profits drop. Frank blames the decline in profits on increased advertising and promotional spending.

You have just a few minutes to determine if Frank is correct and suggest solutions. How do you proceed?

SOLUTION STRUCTURE

- Quick check for changes to the costs or revenues
- Analysis of competition, Joe and other
- Analysis of other potential problems

Cost Driver Assumptions:

Any changes in: Dairy products (raw materials), production costs, distribution costs, marketing costs, other?

A: No major changes except for an increase in promotional costs (couponing and retail price reductions)

Revenue Driver Assumptions:

Q: Any changes in: Price, number of accounts, sales levels, type of cheese sold, quality of cheese?

A: Have taken periodic price reductions; No major changes.

Assumptions:

Frank has increased promotional spending and reduced prices, most likely due to an increase in competitive pressure. Have we seen increased competition?

A: Yes, many of our accounts are offering private label cheeses at half our retail price

What do we know about the private label cheese? Quality?, Consumers?

A: Lower quality than Frank's two consumer segments: Those who do a lot of home cooking and use only Frank's or Joe's, and those who just stop in and pick up a block of cheese.

Why have we been discounting? Are we losing our loyal customers?

A: No. We're just under a lot of pressure from the retailer to match prices.

Issues:

Due to competitive pressure from private label, Frank and Joe have taken periodic price reductions. This has hurt their margins and may also cause them to lose their loyal customers (and lose their high-quality brand image).

Recommendations:

- Maintain premium price levels for Frank's current line of high quality cheese.

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

- Manufacture a lower cost product under a different brand name to compete with private label brands.
- Utilize advertising revenues to communicate the benefit of using high quality cheese.

Dental-care International Expansion

Your client is a consumer packaged goods firm that specializes in dental care, over-the-counter medical care, candy, and personal hygiene products. They are based in the East Coast of the U.S., but have experienced strong growth throughout the U.S., Mexico, and Canada. Bolstered by the confidence in their domestic sales growth and profits, the company recently launched an initiative to enter markets in South America (primarily Brazil, Argentina, and Peru) and Southeast Asia (Hong Kong, Japan, Singapore, and the Philippines). They also sought to expand their presence in Holland and Belgium.

Last year, in South America and Southeast Asia, despite rigorous market analysis showing a strong demand for their products, profits were well below expectations. The company also experienced a host of problems in a variety of areas, including labor unrest, poor logistics, and unmet forecasts. This year, there are no signs of improvement in any areas. In fact, things are looking worse and the company is considering withdrawing from these markets. Meanwhile, everything is great in Europe. They have hired you to determine next steps.

This is a meeting with the CEO of the firm – what do you tell her/him?

ADDITIONAL INFORMATION

Note to interviewer:

Play the role of CEO – be VERY American. The heart of the problem is that the American managers assigned abroad were unprepared to adequately deal with different business environments. This includes language barriers, cultural differences affecting business practices, and managing a diverse multi-national staff. Further, the local company managers hired had tremendous experience in their home countries, but have never worked in the U.S., and know little about your client. This resulted in tensions, misunderstandings, and mismanagement. This is the source of the trouble; the other problems are symptoms. Answer each question the interviewee asks accordingly.

Company Information

- Excellent supply chain logistics enables this company to compete with P&G, Colgate, etc in US.
- Internal training program enables managers to learn and prepare their system, prior to taking the helm.
- The regional managers were area managers in the US regions, and all performed above expectations in the US; this was the basis for their transfer abroad.
- The country managers are local hires; experience in other local industries, none with this firm.

Europe

- Currently operating in 4 European countries (Belgium, Holland, England, and Luxembourg) – only operations outside N. America. (All staff speak English.)
- Original entry completed by buying existing leading brand in Benelux.
- Distribution is typical for similar products (no problems here).

Southeast Asia

- Person who runs operations used to run Chicago/Midwest area so skills are solid.
- Hired local people with many years industry experience, none with this firm.
- In Hong Kong, 3 GMs have quit; others threaten to quit.
- Problems with labor (strikes), shipping delays, distribution complications, missing inventory.
- Positioning: products are premium products, lower priced than other products (irrelevant to performance).

South America

- Person who runs operations used to run New England area, so skills are solid.
- Hired local people with many years industry experience; none with this firm.
- Problems with labor (strikes), shipping delays, distribution complications, and missing inventory.
- Positioning: products are premium products, lower priced than other products (irrelevant to performance)

SOLUTION STRUCTURE

Identify the factors that may affect a product launch / new market entry and operations

- External factors – economics (is Europe different?)
- Internal Factors – staff skills & training (what is different in Europe)
- Identify problems: look at (1) product positioning, (2) distribution, (3) target segment needs, (4) promotional activities, (5) personnel
- Determine the source of problems
- Provide recommendations

Airline Profits (McKinsey)

Your Client is Scan Air, a mid size Scandinavian airline. The airline has 100 aircraft, 22,000 employees worldwide, a strong cash flow and nearly zero debt. The airline focuses on business passengers. The current CEO is leaving. Most flights fly into or out of a single hub in Scandinavia. Most flights have flights connecting in central Europe and N. America with Asia. Scan Air has previously ignored the trend toward global alliances.

Situation: Profits are eroding. Scan Air wants to “get in shape quickly.” They want to maintain their previous situation, fend off competition, and decrease their cost base.

Question 1: What things do you want to look at?

Question 2: Scan Air is currently not engaged in alliances with other airlines and the CEO wants recommendations on what they should consider when determining if they should enter into one.

Question 3: Scan Air has entered into negotiations with a potential alliance partner. What will be the major issues you think they will discuss?

Question 4: The new CEO wants to announce that Scan Air will achieve a 10% profit margin before tax. What load factor per flight is required to achieve this goal? Is this ratio achievable?

Question 5: You are having a team meeting with the CEO. What do you plan to say?

Information: Information to give

Load factor = # of passengers / # of seats

Average flight = 1000 miles

Seats per plane = 200

Fixed cost per plane per flight = \$20,000

Earn \$0.25 per passenger per flight mile

Cost / mile = \$0.10 per seat (filled or not)

Information if asked

Current load factor = 75%

Answer 1:

Profit = Revenue – Costs

- Revenue = Pricing * Volume
 - Pricing
 - Business Pricing – last minute, frequent flyers, pay higher prices
 - Vacation Pricing – purchased in advance, fly on holidays, price sensitive
 - Volume
 - New cities
 - New times
 - Investigate plane utilization and capacity
 - Alliances
- Costs = Variable Costs + Fixed Costs
 - Fixed Costs
 - Gates
 - Airplanes

- Maintenance
- Out source
- Sell out
- Rent
- Variable Costs
 - Fuel (Hedge?)
 - Labor
 - Unionized
 - Hiring & Pay differences
 - Ticket booking
 - Food etc.

Answer 2:

- How will an alliance help Scan Air?
 - Improve ability to attract and retain customers
 - Reduce costs
 - Reduce competition, compete better
- Will partner fit with Scan Air?
 - Image, service, systems

Answer 3:

- How to share revenue
- How to integrate systems
- How to split advertising costs, and maintain brand image

Answer 4:

Costs = Fixed costs + Variable costs

Costs = \$20,000 + \$0.10 * 200 seats * 1000 miles = \$40,000

Profit margin = (Revenue – Cost)/ Revenue

10% = (Revenue - \$40,000) / Revenue

Revenue = \$44,444

Revenue = revenue per mile * # mile * # of passengers

of passengers = Revenue / (revenue per mile * # mile)

of passengers = \$44,444 / (\$0.25 * 1000) = 176

Load factor = # of passengers / # of seats = 176 / 200 = 89% ~ 90%

75% → 90% is a 20% increase, and is a difficult number to reach

Newspaper-subsidary Valuation

A newspaper company (Daily News) in suburban New York has a subsidiary in New York City. The subsidiary is losing a lot of money. What is the value of this subsidiary?

ADDITIONAL INFORMATION

Newspaper in suburban NY:

- The newspaper company in suburban NY is very profitable, it has number 1 market share (80% share).

Subsidiary that is losing money in NYC:

- Costs are not increasing.
- Revenues are not decreasing.
- The subsidiary is only two years old. Target segment is lower to middle income families.
- Market share is 10%. Revenue drivers are subscriptions and advertising. The breakdown is 50% / 50%.
- Usually, in a newspaper company, advertising is the major source of revenue. Subscriptions are not that much since the market in NYC is very competitive. It is dominated by lots of other big firms such as the New York Times, etc. Consequently, advertising prices are very competitive and do not generate lots of revenue in the subsidiary. (Big firms do not want to advertise in newspaper that has little market share).

Market condition in NYC:

- Very competitive, very hard to differentiate since there are lots of competitors and excess capacity. This is adversely affecting pricing and profitability in the market.

SOLUTION ANALYSIS

The financial value of the subsidiary is negative. However, lots of companies in New York City, including the NY Times, are trying to enter suburban areas of NY because they are very profitable. Therefore, this company (Daily News) is trying to enter the NYC market to distract the attention of those companies that try to enter its market, as well as signal that if the NYC newspapers try to grab share in the suburban area, Daily News could do the same thing in NYC. The value of the subsidiary is its strategic value.

Petroleum-company Suppliers

A large oil and gas company that has operations worldwide is divided into three business segments: upstream, downstream, and chemicals. Upstream involves drilling and extracting oil, downstream is refining the product into gas and selling it at stations, and chemicals is producing petroleum-based products. The upstream business segment is divided into approximately 30 companies worldwide that fall under the parent company's umbrella of businesses. These companies use numerous suppliers and the parent company would like to cut supplier spending and, in particular, the parent company would like to know whether they are using the cheapest suppliers in all cases.

ADDITIONAL INFORMATION

- The parent company has upstream companies in four regions: Asia, Europe, the U.S., and Africa
- There are three suppliers that have a presence in all four regions (companies A, B, and C)
- The upstream companies and the top two low cost suppliers in each region are:
 - Asia - 10 upstream companies, 4 suppliers, rankings: A, B
 - Africa - 4 upstream companies, 4 suppliers rankings: A, B
 - Europe - 10 upstream companies, 6 suppliers, rankings: B, C
 - U.S. - 6 upstream companies, 8 suppliers rankings: C, B

SOLUTION STRUCTURE

A good way of attacking this case is to find out where the parent company has upstream operations geographically and then analyze the suppliers in each region and across the regions. During an actual interview, the case interviewer liked this approach and allowed me to concentrate on one type of supplier in particular, the suppliers of drilling equipment.

Like all other cases, there is no one answer. Instead you should mention several things:

- Look at the strengths of each supplier (do they have specific equipment that gives them an advantage even though they may not be low cost)
- Will the suppliers reduce their prices if the parent company offers a larger volume of business or a sole-sourcing agreement, and do the suppliers have the resources for a larger volume
- If A is chosen as sole supplier to the 10 companies in Asia and C for the 6 in the U.S., can you transfer the cost cutting ideas between the two companies to receive further cost reductions?

Carpet Investment (McKinsey)

Your client is the family owner of a company that serves residential and commercial markets and operates 5 days/week and 16 hours/day. Answer the following questions:

Question 1: Should Benjamin Carpet Co. purchase the machine? How would you structure your solution?

Current process

- Purchase colored yarn
- Load correct colored yarn onto spools
- Weave carpet with colored yarn
- Back carpet
- Cut, roll, store

Considering new process

- Purchase uncolored yarn
- Load spools
- Weave carpet
- NEW MACHINE (Ink → Dye → Dry)
- Back carpet
- Cut, roll, store

Machine costs \$25M

Question 2: What are some of the categories that will effect the calculations?

Question 3: Given the following information is the machine worth investing in?

Question 4: With the following additional revenue is the venture worth pursuing?

Additional Information:

Currently produce & sell 10mm yards of carpet per year.

Current fully loaded cost \$10/yard

New fully loaded costs

Un-died yarn	-\$0.50 / yard
Inventory	-\$0.50 / yard
Labor	-\$0.25 / yard
Op Cost	<u>\$1.00 / yard</u>
	-\$0.25 / yard

Machine lasts 10 years

New technology allows for the creation of carpet with new textures and patterns.

Two types of new customers:

Current customers pay \$16 / yard

New customers will pay 25% more → $1.25 * 16 = \$20 / \text{yard}$

Market

High-end 70 million yards / year will capture 5%
Current 10 million yards / year

Answer 1:

- Understand all alternatives
 - Only two, buy this machine or don't
- NPV of costs and future cash flows
 - Revenue
 - Additional Volume?
 - Additional Price?
 - Costs
 - Additional Operations
 - Operation Savings
- Access to capital
 - No problem
- Risk to business of changeover
 - Minimal

Answer 2:

Investment

Labor

Yarn (inventory management, waste, lower cost)

Utilities

Operation Costs (Die, Electricity, Maintenance)

Answer 3:

Impact $\$10 / \text{yard} \rightarrow \$9.75 / \text{yard}$

$10,000,000 \text{ yards} * (\$10 - 9.75 / \text{yard}) = \$2,500,000$

$\$2,500,000 * 10 \text{ years} = \$25,000,000$ with 0% discount rate. With any realistic discount rate generated cash flow will not displace the \$25mm cost.

Answer 4:

70 million yards / year * 0.05 * \$20 / yard =	\$ 70 million
10 million yards / year * 0.30 * \$20 / yard =	\$ 60 million
10 million yards / year * 0.70 * \$16 / yard =	<u>\$112 million</u>
New	\$242 million
Old	<u>\$160 million</u>
Additional Sales	\$ 82 million
Fully Loaded Cost	<u>\$ 34 million</u>
Profit	\$ 48 million

Annual profit of \$48 million easily overcomes \$25 million cost and over 10 years will be very profitable.

Telecommunications Product-portfolio

A Baby Bell company is interested in diversifying into other areas besides telecommunications. They are considering entering the market for electronic home security systems. Would you recommend that they do so?

ADDITIONAL INFORMATION

- The company is a holding company. The company has previously made unsuccessful forays into software and into real estate.
- The home security industry is highly fragmented. The top five players in the industry generate less than 4% of the total industry revenues. This implies that the industry largely consists of small, regional companies.
- 10% of all residences currently own an electronic security system.
- This is in some sense a razor and razor blade sort of business. The economics are:

Item	Retail price	Cost/Margin
Equipment & Installation	\$500-\$1500	0-10% margin
Monthly service	\$20/month	\$5/month
- What strengths/competencies of the Baby Bell company are useful in this market?
 - Installation expertise
 - Operator services
 - Transmission system (phone lines)
- It turns out that the "expensive home" segment of this market is saturated. Growth has been slow in recent years.
- Price sensitivity is unknown in "moderate-priced home" segment.

SOLUTION STRUCTURE

Use an industry attractiveness framework, such as Porter's Five Forces, to determine whether this is a business you want to be in, or at least to determine what kind of returns you can expect to achieve. Then, use the value chain to look at where value is added in the home security business. Another possibility is a basic 3 C's to analyze the market potential. Finally, once you feel you understand the market, determine if the core competencies of the Baby Bell are likely to match the demands of the home security market. The conclusion is that this business is a reasonably good fit for the company, but that more market research needs to be done to assess the growth and profit potential of each segment of the market.

Glass Investment

A producer of glass containers is considering making a \$1 million investment to upgrade some process equipment. Would you recommend that they do so?

ADDITIONAL INFORMATION

- This company has only one, albeit large, facility. There are quite a few other glass producers.
- Margins and profits of the entire industry have been eroding for several years.
- There has been and continues to be some cannibalization by plastic and metals. However, glass remains the material of choice for many applications, especially food products.
- The main input material, sand, is inexpensive and plentiful.
- Some of this company's competitors have already made a similar upgrade to their own process equipment

SOLUTION STRUCTURE

Start with a simple cost/benefit analysis. Look at the potential benefits from upgrading the equipment and compare that to the \$1 million cost. To look at the benefits, consider the Porter Five Forces framework to look at likely returns from the industry. Remember that future cash flows from this investment must be discounted at the company's cost of capital.

SOLUTION ANALYSIS

- The key insight in this case is to recognize the high competitive intensity in this industry. The profit potential, at least in the short term, appears poor.
- Given the fact that there are too many players and too little profit, some consolidation and/or exit of some companies from the industry appears inevitable. This company must decide whether it is worth it to try to ride out this shakeout.
- At least in the short term, the return on the \$1 million investment will likely not be adequate to justify making it. However, one interesting possible justification for making the investment might be to "dress up" the company in order to sell it

Auto-parts Business-entry

A specialty ceramic materials firm has decided to enter the automotive parts supply business. They have developed new ceramic engine components that when used in a standard internal combustion engine will increase fuel mileage by 20%, decrease pollution by 30%, and improve longevity by 20%. Your client wants to know how to proceed.

ADDITIONAL INFORMATION

There is quite a bit of internal rivalry in the automotive parts business. This has driven profit margins down to a minimum level. Buyer power is quite concentrated with the big three automakers coming first, then the large engine manufacturers, and then possibly the large automotive supply centers. There are very few supply issues as the components for ceramics are easily found. New entrants should not be an issue because the formulation for our product is a mix of patented materials and processes. Substitutes are the traditional steel components. Profitability analysis shows that our components costs \$500 per engine set, while traditional steel components costs \$50 per engine set.

SOLUTION STRUCTURE

The first place to start is with an industry analysis, perhaps using Porter's 5 Forces to get an understanding of the automotive parts business. From there, look at the new venture's profitability and finally a marketing plan:

- The best place to determine cost benefit is on miles per gallon savings. For example, for a 30-mpg car, the new components will get 36 mpg. The average person drives 12,000 miles per year, which is 400 gallons with the old components and 333 gallons with the ceramics. At \$1.25 per gallon, this is an \$83 dollar a year savings. It will take the average driver over 5 years to save the extra \$450.
- However, the average semi-truck will drive over 100,000 miles per year. At 10 mpg to 12 mpg the annual savings are over \$2,000.

The next step is how to go to market. This company lacks any automotive distribution network or sales force. The company should form a joint venture for distribution with a current automotive parts supply company.

Regional-bank Growth (McKinsey)

Your client is the CEO of a Regional Bank who is being pressured by the board to obtain profitable growth. Answer the following questions:

- Question 1: What opportunities does the bank have for profitable growth?
- Question 2: Focus on Cross selling. What products should be cross sold?
- Question 3: Is \$5M incremental profit obtainable from cross selling to Investment Accounts?
- Question 4: What are the risks associated with pursuing the suggested product (choose one)?

Information to be given if asked:

- Bank has presence in four states
- One million commercial customers
- Average balance = \$50,000
- Each account generates revenue of 1% on balance
- Contribution margin = 40%

Answer 1:

- New Services (Credit cards, insurance, ...)
 - Current Customers
 - New Customers
 - Same region
 - New region
- Existing Services
 - Cross sell to Current Customers
 - New Customers
 - Same region
 - New region
- Acquisition
- Partnership
- Other markets
- Different markets (small businesses, ...)

Answer 2:

Products	% of Current Customers	Return on Equity	Bank's Strength in Area	Competitive Landscape
Deposit Account	100%	25%	High	Threat from brokers and mutual funds
Loans	50%	15-18%	High	Threat from specialist.
Investment Accounts	7%	12-15%*	Medium	Full service & discount brokers. Banks beginning to gain mkt. share.
Insurance	1%	<5%*	Medium	Agents dominate this market.

* ROE could increase with larger volume.

I choose to investigate loans then investment Accounts.

Answer 3:

$$\$50M = (0.01) * (0.40) * (50,000 * X)$$

$$X = 250,000 \text{ new subscribers}$$

$$\text{Total subscribers} = 250,000 + 70,000 \{7\% \text{ of } 1M\} = 320,000$$

$$320,000 / 1,000,000 = 32\%$$

I don't think this is likely.

Answer 4:

- Customer
 - Perception
- Business risk of providing the service.
- Competition from other banks to get accounts could lead to lower profit.
 - Lose of entire customer if you convince them services can be bundled
 - Cannibalization of ROE associated with movement of \$ from Deposit Accounts to Investment Accounts.

Conglomerate ROIC (McKinsey)

Your client is a 5B dollar conglomerate with 50 plants nationwide. They were formed by acquisition of various small firms over the last 10 years and there are still some integration issues. The CEO would like to increase the ROIC of the firm from 10% to 20% in 3 years. Is it possible and how would you achieve this?

Information to be given if asked:

- ROIC Definition
 - ROIC is Return on Invested Capital. This can be achieved by growing the profits of the firm and/or by decreasing the invested capital.
 - There are firms in the industry that have 20-30% ROIC. Hence the client's target looks achievable.
- Customers
 - Client has 30% customers in Europe, 10% in Asia, 50% in North America and 10% in ROW.
 - The client has 2 types of products – Standard (almost a commodity) and Engineered (designed specifically for the client).
 - The standard products are getting commoditized, hence have significant price pressure.
 - The engineered products have good margins in the 1st year and then the margins decrease in subsequent 3-4 years.
 - The client has 30,000 SKUs in their product portfolio.
 - The industries that the client serves are as follows:

Industry	% of Revenues	Standard product	Engineered product
Automotive	55%	65%	35%
Electronics	25%	45%	55%
Construction	10%	75%	25%
Others	10%	70%	30%
 - NOTE: The interviewee should recognize the following by now based on the Customer Information
 - Client % revenues from Electronics industry are quite low and that industry has the highest % of Engineered products. The client should focus more closely on that industry.
 - Engineered products offer much higher margins.
 - 30,000 SKU seem like a lot, and should address that in the case as well. There will be interdependencies among these products.
- Competitive Landscape
 - This is a highly fragmented industry with 20,000 competitors.
- Investment/Cost
 - There are integration issues among the small companies under the client umbrella. The issues pertain to decentralized sourcing, sales staff and back office operations. These should be centralized to decrease cost (economies of scale) and improve coordination.
 - The product portfolio needs to be optimized. Evaluate profitability of each product along with its interdependency, i.e. its importance in a product portfolio supplied to

important clients. Evaluate profitability of each client as well. Suggest using databases for this analysis.

- Divest assets pertaining to certain non-profitable low volume standard products to decrease capital investment. If these components are still needed for a client portfolio investigate outsourcing their production and having exclusive contracts to maintain quality.
- Evaluate the capacity utilization and supply chain for the 50 plants. Decrease investment if possible.

Solution:

The client can increase the ROIC from 10% to 20% by the following initiatives:

- Optimize product mix while keeping product interdependencies in mind
- Sell more engineered products by growing business in electronics industry
- Decrease cost by improving the internal integration

Financial-services Share-price (BCG)

All of the data in this case is public domain. Consecos is a company at the financial services industry and more specifically at the business of life and health insurance. During the years 83-98 Consecos was a great performer and lead the S&P 500. Consecos's main growth engine was its successful acquisitions. On average, the company acquired a target every 6 months. During 98, Consecos acquired Green Tree Financials. Surprisingly, the day after the deal was announced Consecos share price dropped 20% and a year after the share was down 50% from its price the day before the announcement. You were hired by the CEO to explain this drop in the share price and to suggest a course of action.

Additional data:

- Green Tree Financial is a provider of loans for homebuyers.
- Green Tree Financial is charging higher interest rates than Consecos.
- Green Tree deal was much larger than Consecos's previous deals.
- Consecos share price before the acquisition was \$57.7.
- Green Tree Financial share price before the deal was \$29.
- The deal was a fixed equity exchange deal where 0.9165 shares of Consecos were awarded for every share of Green Tree Financial.
- Consecos's market cap before the deal was \$7B.
- Green Tree owned approximately 50% of the company created by the M&A transaction.
- A year after Green Tree needed an additional investment of \$1B.

Solution Structure:

- Identify the players attributes.
- Identify the exact deal structure.
- Identify misalignments in the deal that might cause the share price drop.
- Try to predict what will happen next and suggest course of action accordingly.

Solution Analysis:

- Problems with the deal structure:
 - Misalignment in the companies business.
 - The almost 1:1 stock exchange didn't reflect the different market values of the two companies.
 - Consecos's expertise was in smaller and more rapid acquisitions and this acquisition wasn't something they could handle.
- Problems with the acquisition target:
 - From the last bullet in the additional data section it is obvious that Green Tree was at a difficult situation before the acquisition and wasn't a good target for acquisition.



The market adjusted Consecos's share price to reflect these misalignments.

- What to do now (after a year)?
 - Investigate the financial state of Green Tree after a year (it is evident it wasn't good).
 - If Green Tree continues to be in distress suggest dumping it.
- Conclusion

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

- Green Tree continued to suffer big loses and dragged Consico with it
- After several years Conseco was unlisted from the S&P.
- Additional questions
 - What was Conseco's management thinking?
 - Where was Conseco's board of directors?

Insurance Reporting (BCG)

Insure me is a Global Financial Services company at the insurance business. Recently, the CEO of the company was fired and took with him all of the 10 employees of the company’s private funding division, which was his pet project. No one that is left in the company knows what is going on in that division, and there is no reporting system to rely on (the CEO took all of the data with him). How would you go about managing this division?

Additional data:

- The company is operating in the US and Europe.
- The company provides car, life and other type of insurance.
- The company is one of the 4 leading players at its market with over \$1B of annual revenues.
- The private funding division is type of a VC.
- We have a data sheet (see appendix) which list 4 of the division’s current investment.
- These 4 investments are only around 20% of the number of investments but form 80% of their value.

Solution Structure:

- Identify the company’s business and core competency.
- Identify the assets under the division management.
- Identify any financial and strategic synergies between the division’s assets and the company.
- Analyze ways to leverage the division and its assets moving forward.

Solution Analysis:

- As mentioned the company’s core competency is in the insurance field.
- As could be observed from the appendix two assets are not complimentary to the company’s business.
- From the remaining ones one is forecasted to lose money next year.
- As such there is one company it make sense to keep and the other are not a real asset to the company.

Recommendations:

- Keep the company with the strategic fit that makes money and try to sell the others (for a good deal).
- For the one that makes sense try to increase the company’s holding in it.
- The company with the fit will serve both to hedge the bets and in order to keep the finger on the pulse of the new market needs.
- As for the division, try to find what would be needed (funds, time, efforts, HR etc.) in order to bring it to an operational mode.
- Find what are the estimated operation costs.
- If it makes sense from the financial aspect you might want to keep this division as it hedge your bets.

Name of company	A	B	C	D
Field	High Value commodities insurance	Stadiums renovation	Golf clubs design	Executive insurance

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

This year's revenue	\$150M	\$300M	\$100M	\$70M
This year's expenses	\$100M	\$280M	\$150M	\$50M
Next year's revenue growth (additional on top of the current)	300%	200%	100%	300%
Next year's expenses growth (additional on top of the current)	500%	200%	150%	400%

Coca-Cola vs RC Cola

The following represents the allocation of each dollar spent to bring a bottle of Coca-Cola to the consumer.

Research and Development	5%
Syrup/Bottling	25%
Distribution	25%
Marketing	24%
Overhead	10%
Profit	10%

Draw a chart with the dollar percentage allocations for RC Cola.

SOLUTION STRUCTURE

Approach:

- To make it easier, start with the larger percentages.
- RC doesn't have the economies of scale Coke enjoys, therefore their manufacturing is a higher percentage of costs.
- They do not have as efficient a distribution system (fewer products/ same # of locations), therefore it requires a higher percentage.
- Both of these leave less money available for R&D (look at the lack of new products), marketing and profit.
- Overhead is actually lower because they require fewer front-office people to run the business.

RC Cola:

Research and Development	3%
Syrup/Bottling	35%
Distribution	35%
Marketing	15%
Overhead	7%
Profit	5%

Software market-growth

Congratulations! The firm of your dreams has just hired you. For your first assignment, your client is a software development company that specializes in spreadsheet add-in products. These products enable spreadsheet users to do complex numerical analysis, run simulations, linear optimization, distribution fit, decision-trees, what-if analysis, and a host of other high-octane mathematical functions.

The firm was started by an engineering professor at Cornell University, and has grown to its current size of 37 full-time employees. Tired of programming a mainframe computer to help with his routine but sophisticated calculations, he developed a program for his work. He soon realized the market potential and began this firm to help reach that potential. Now, 14 years later, the product has developed a loyal following, but has yet to break wide open.

Current users of the main product lines include professionals in the petroleum industry, financial markets, manufacturing, health care, academia, and others.

ADDITIONAL INFORMATION

- Q: How large is the market? A: We don't know. How would YOU figure it out?
- Main substitute is enterprise systems (customized software systems) but these systems are far more expensive.
- There is one competitor, only 3 years old. Key difference: cheaper, less sophisticated products.
- What is the price of the product? Software price is generally irrelevant. End-users are not as price sensitive.
- Company costs are not important. The company is very lean and well managed from a cost perspective.
- Revenues were \$10MM in the last fiscal year, but so what? The company is profitable and growing, just not fast enough.
- Current distribution is through resellers – people call them to order the product (resellers sell a large variety)
- Most software is sold direct to customers who contact the firm. These are current users purchasing up-grades, additional site licenses for co-workers, or people who've seen what the product can do for them.
- Many new leads come from trade shows, direct mail, and print ads in technical journals. These programs are effective but small.
- Q: Who are the users? A: We don't really know, since very little information is kept on buyers.

Solution Structure

- Determine a mission – what is the purpose of this engagement/case? To help increase product sales for the client.
- Define the problem and analyze why.
- Examine target segment – who uses the product, who isn't but should use the product?
- Analyze the product – who would use it and why? What are the substitutes and competition?

- Examine channels of distribution.

SOLUTION ANALYSIS

The key issue is the means of selling the product. The current channels of distribution are not adequate to sell the product. Good answers should identify that the product is very complex, difficult to use, but also a very powerful tool for users in specific industries. Therefore, the marketing program must educate end-users. Good answers will explore, then provide recommendations to improve channel performance. Outstanding answers may provide specific recommendations for joint ventures.

Critical insight: How large is the market? Good answers should provide what-if scenarios for various possibilities, i.e., if the key industries have been reached but on a small scale, marketing efforts should focus on finding new users who match current user profiles. But if key industry segments have yet to be identified, perhaps marketing programs should focus on introducing the product to new segments of users.

Cutting-tool International-expansion

A large American cutting tool manufacturer who has the dominant market share in the US, but minimal presence in other parts of the world, is considering entering the German market. They believe the German market could be attractive because of the large industrial base. How should they enter?

ADDITIONAL INFORMATION

- The cutting tools that this company manufactures are many different types of drill bits that go onto machine tools, and are used in metal working applications - from machine shops to auto manufacturers, and many other industrial applications.
- The business is divided between standard parts, and custom-designed parts for specific applications. The standard pieces are sold through distributors and direct through a sales force, and the custom designed pieces are sold through a direct salesforce. The custom-designed pieces are much more profitable than the standard pieces, and our client is interested in this market.
- (At the time of this case) Germany is a growing market for cutting tools, due to a strong industrial base, especially in heavy industries where there is the possibility to sell many custom designed pieces in large volumes to customers.
- Germany appears attractive because it could provide a foothold to enter the rest of Europe, where again our client has a negligible presence. France and Italy also appear to be attractive markets, and the experience gained in Germany with European manufacturers could help to establish a European name for the company.
- There are about ten competitors in this market, all German, none of which has more than a twenty percent market share. There isn't a lot of movement among the competitors in terms of stealing share from each other. They are all basically growing along with the growth of the market in general.
- Some of the competitors are stronger in the custom designed tools and other competitors are stronger in the standard pieces. All of the competitors have both direct and indirect salesforces.
- Each of the competitors has a very strong relationship with their customers. The loyalty of the customers is so strong that the cutting tool firms send salespeople to customers of competitors every day for years in a row before winning the account. Once a supplier has established a relationship with the customer the supplier can be almost assured of a cash stream over a period of years. This makes the cost of acquisition of new customers extremely high.

SOLUTION STRUCTURE

This case is adaptable to a few frameworks; you could try using Five Forces, but don't get locked into running through all five. Another approach you could use is to use a hybrid of the 3 C's and 4 P's.

SOLUTION ANALYSIS

- Because the direct salesforce is the key to winning customers, and the strategic focus of our client, our client could not enter through distributors. On the other hand, they could not hope

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

to enter with their own direct salesforce because of the prohibitively expensive and long customer acquisition process.

- They established a joint venture with a company that had a strong customer base, but did not have superior engineering capabilities to custom design pieces.

Contract-manufacturing product-portfolio

MPL is a seven-year old contract-manufacturing firm located in Ithaca, New York. The founder and President, Shane French, has found a niche in the contract manufacturing space by providing his customers highly customized service, particularly with respect to production schedules and small lot sizes. Contract manufacturing is, for example, placing microelectronics on printed circuit boards (a.k.a. motherboards) for such components as computers, lasers, and electronic items. Currently, customers provide MPL with parts inventory, and MPL performs the assembly. French investigated the field and is considering offering turnkey solutions. That is, providing ready-made boards for clients (based on customer specifications). This would require an investment in inventory, but MPL could command a 20% mark-up on parts alone. This is how many contract manufacturing firms grow revenues. Should MPL offer turnkey solutions?

ADDITIONAL INFORMATION

- The competitive environment is very fragmented in the niche portion of the industry.
- MPL has been profitable each year, growing 30% annually.
- MPL has very little debt, and owns all its equipment (\$30,000 bank loan for equipment).
- Customer relationships are critical: MPL has a solid customer base.
- MPL has a customer base of about 10 firms = 90% of its business is from repeat customers.
- Relationships are not steady – client needs vary from time to time, job sizes vary considerably.
- Business is strong but variable; customer demand comes and goes in waves, unpredictable.
- Offering turnkey solutions would not smooth the production cycle.
- MPL specializes in filling niche needs; small lot sizes, unusual delivery schedules.
- MPL is currently not seeking new clients, lacks the capacity to service new clients.
- MPL lacks the resources (skills) to forecast demand.
- There is not enough skilled labor in the area to increase capacity – which is why they're turning customers away.
- Offering turnkey solutions would require an increase in capacity.
- Parts supplies are plentiful; discounts are possible for bulk purchases.

SOLUTION STRUCTURE

- Determine a decision rule.
- Identify the key factors for consideration.
- Investigate the pros and cons of these factors.
- Make a recommendation.

SOLUTION ANALYSIS

Good answers should uncover:

- Advantages of turnkey: more \$, more customers.
- Disadvantages: requires greater capacity, would not smooth operational cycle (demand is highly variable), large investment in inventory is financially unfeasible (payback would only occur over time), MPL lacks scale.
- Identify steps to mitigate demand issues.
- Increasing in capacity is a “step” function, not linear.
- Discuss issue of resources (skilled labor).

Senator Re-election

Harry Reid (D-NV) is an incumbent United States Senator from Nevada running for re-election. In 1994, Reid easily won re-election. Despite his seniority and solid record of accomplishments, he is in trouble this November. Why? He’s hired you to analyze the situation. His opponent is two-term Republican Congressman John Ensign, from Las Vegas.

SOLUTION STRUCTURE

Politics—in a perverse sense—is marketing. This is a marketing case. The 4P’s is a good place to start.

Examine 4 P’s

- Discover what is different this election from last election
- Present analysis and recommendations
- Product and Positioning
- Key differences: ideological, age, appeal to voters (i.e., charisma), target base
- Reid = well-known and respected, his personality is all business, his record is moderate-liberal
- Best known for fighting nuclear power and waste dumps in Nevada, environmentalist
- Ensign = young, brash, religious-right conservative, recently divorced, charismatic
- No established legislative record, a Newt Gingrich disciple

Place

For both candidates, distribution of “product” is promotions.

Promotions

Both candidates send constituent mail statewide, campaign mail statewide, and broadcast statewide radio and television commercials, campaign events, debates

Price

Not relevant – the price is qualitative for the sides that lose: both sides stand much to gain or lose from electoral victory. Reid enjoys a slight fund-raising edge.

Segmentation

- Reid – target segment is traditional Democratic base: elderly voters, environmentalists, minorities, educational community, blue-collar workers, women, urban voters in Las Vegas and Carson City
- Ensign – target segment is conservative base: new-right Christians, suburban families, wealthy individuals, anti-government activists, developers, ranchers, miners.

<u>VOTER SEGMENT (not equal 100%)</u>	<u>1994</u>	<u>2000</u>
Population	2.5 million	3.9 million
Nevada Elderly	24%	20%
New Retirees (new arrivals)	16%	24%
Women	52%	51%
Men	48%	49%

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

Suburban	22%	39%
Urban	49%	40%
Rural	29%	21%
Blue Collar	15%	19%
White Collar	17%	21%
Minority	07%	04%
Democrats	31%	30%
Republicans	32%	35%
Other	37%	35%
Liberal	21%	19%
Conservative	40%	45%

Soda Advertising

Is Coke spending enough on advertising? You have been retained by the CEO to find out.

ADDITIONAL INFORMATION

Coca-Cola

Area	Position (sales)	Market Share	Ads (Mln)	% of Mktg Budget
United States	1	41%	\$114	50%
Other North America	1	40%	\$58	45%
South America	1	33%	\$20	35%
Southeast Asia	2	20%	\$25	30%
India	2	22%	\$15	30%
Western Europe	2	12%	\$21	25%
Eastern Europe	3	13%	\$19	20%
Africa	2	12%	\$7	13%

Nearest Competitor

Area	Position (sales)	Market Share	Ads (Mln)	% of Mktg Budget
United States	2	31%	\$98	55%
Other North America	2	30%	\$38	55%
South America	2	13%	\$14	25%
Southeast Asia	1	24%	\$35	25%
India	1	37%	\$24	25%
Western Europe	1	20%	\$22	30%
Eastern Europe	1,2	18, 17	\$14, \$13	24%, 30%
Africa	1	22%	\$12	17%

Q: What is the goal?

A: To be leading non-alcoholic “entertainment” beverage in every market.

Q: Is the company satisfied with its current position?

A: Yes, but competition is closing in.

Q: Is there a correlation between ads and market share?

A: You tell me, you are the consultant – how would you figure that out?

Q: Tell me about other promotions

A: Other promotions include price discounts, coupons in some areas, in-store shelf arrangements (very expensive but effective)

SOLUTION STRUCTURE

What!?! The correct answer is “it depends,” but a better answer is to explain what you mean.

- Define a goal or decision rule (i.e., what constitutes “enough”)
- Focus on one geographical area (i.e. market) at a time
- Determine factors to consider
- Analyze each factor to determine if it meets the rule
- Present analysis and make recommendations

Decision Rule

The extent to which spending more for advertising results in achieving quantifiable goals in terms of market share or sales volume. (In economist-speak, where marginal costs do not exceed marginal profits)

Factors to consider and analyze in greater depth

- Correlation between ad spending and market share
- Opportunity cost of other spending – how else the goals can be achieved without ads
- Competitive position: direct correlation between spending and competitive position vs. other brands

Suntan-lotion Sales

Your client is a start-up venture in Southern California. They market a single tanning lotion product to beach-goers from San Diego to Los Angeles. Although sales volume is large, it has not reached anticipated levels. You have been hired to find out why, and what can they do about this problem. This is the company's second summer in business.

ADDITIONAL INFORMATION

Answer only if directly asked, or answer "What do you think?" or "Why is that important?"

Why start the business?

- They have conducted extensive market research and have found that their product should do quite well.
- There are currently no other products targeting the Hawaiian Cocoa butter segment.
- The product did quite well with consumers in focus groups that were conducted prior to launch.
- These focus groups are representative of the target market, and indicate a real market need for this product.
- The goal was to attain a 5 percent market share – sales at this level would result in profitability.

Tell me about their operation

- The operation is three people – partners. They handle marketing (including distribution) and finances. Production is out-sourced to a local manufacturer that is reliable and cheap.

Tell me about the market

- The market is quite fragmented, with no dominant player. Coppertone, the leading brand, has a 15% market share.
- There are at least 10 different brands competing in several lotion/oil sub-categories.

Tell me about their pricing and positioning

- The target market is people who purchase sun-tanning products at the beach.
- The positioning is Hawaiian cocoa butter. This is a premium product, and is priced in the middle of the high-end.
- Coppertone, a more expensive brand, is the leading seller.
- Tell me About Distribution
- The product is sold exclusively at bungalows – proprietor owned and operated walk-up shacks on the beach that typically sell soda, snacks, and basic products to beach goers.
- The product sits on the shelf, and buyers see it and select it. There are no additional shelf promotions.
- One partner drives up and down the beaches refilling stock.
- These bungalows do not charge slotting fees, while drug stores and grocery stores do.
- Their lack of sophistication makes little opportunity to provide incentives to have them push the product.

Tell me about promotions

- Brand awareness was built through sponsorship of beach volleyball tournaments. There are no other promotions.
- All signs, including follow-up market research, indicate this has been successful.

How have they been doing?

- The 5% market share goal was reached, but estimates projected at least 7%.
- They sell out of their product at each location the product is available. In fact, the product sells very well.
- The firm is very profitable, but could be more so if sales attained projected levels.

SOLUTION ANALYSIS

This tests your detective abilities. The answer is small and specific – can you find it? Use the 4 P's, and don't give up so easily. Ask, what are the conditions necessary for high sales?

- (1) There must be buyers for the product,
- (2) the price must be right,
- (3) the product must be available.

In this case, the product was not available so people were not buying it. Solution? Make it available. Problem solved. The key to this problem is distribution. Remember that this is a profitable firm. Their problem is not economics, segmentation, competition, price, promotions, or the product – it's distribution. Specifically, it is the delivery schedule of the product. The product sells out at each location, but it is some time before the shelves are re-filled. An easy solution is to re-fill and check the bungalows more frequently. Future considerations may entail a look at promotions and greater distribution, but for now the client is only interested in one problem: meeting projected sales volume.

Additional Questions (No solutions provided)

- Light beer in UK: Why is there no light beer in the U.K.?
- Golf balls in the US: How many golf balls are sold in the U.S.?
- NBC logo: NBC is considering using its peacock logo on a collection of new products. They have hired you to estimate a value for the logo. How would you go about estimating this value? They do not want you to actually come up with new product ideas, only estimate the logo's value.
- Consulting engagement roadblock: You are entering a client engagement as a team manager for your firm. Four consultants have already been working on this engagement for several months. The client's program manager is quitting the firm for "personal reasons" and you will be taking over for her. You sense that she is quitting because of her frustration with her boss, but she will not admit to this. What she does tell you is that she thinks her boss does not believe this project will yield results and has been a "roadblock" to the reengineering process. How should you proceed? Should you alter the teams?
- Greeting-card company: A greeting card company has four different functional areas along its production chain: idea generation, development, manufacturing, and sales. Idea generation comes up with new ideas for cards and development turns them into designs used by manufacturing. The company has been too slow to get new cards to market. Why?
- Oil & gas company: You are part of the consulting firm's strategy team that develops an approach for the implementation team to follow. You have been hired by an oil and gas company president. His company has three functional areas: upstream, downstream and midstream. Midstream is a misnomer...they actually provide services to the upstream and downstream areas (and don't sit between them in the product flow). The president feels that the midstream area is inept and wants you to find out why.
- Bank's real-estate division: The real estate credit division of a bank wants to increase their revenues--how can they do this without increasing their risk and without alienating customers?
- Lost in a supermarket: You are trapped in a supermarket and you don't know how long you will be there before someone comes to let you out. Water and air are no problem. How do you determine how many weeks you can survive with the amount of food in the Store?
- Gas stations on I-95: What is the number of gas stations between New York City and Miami on I-95?
- Electric-utility customers: You are an electric utilities company and some of your best customers are leaving. What can you do?
- Chemical-industry profitability: A chemical company's profits have been falling recently. How would you advise the company to improve profits?
- Electric-utility deregulation: A New England electric company is facing competition due to deregulation in their industry. Soon, the carrier (wires) business will be separate from the generation (power plant) business. Any company generating electricity will soon be able to sell in their market. What should the company do?
- Far-east strategic operating plans: A multinational oil company has called you in to prepare a five-year strategic plan for its Far East operations. How will you go about preparing it and what actions would you suggest?

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

- Aircraft purchase: A major airline wants to purchase aircraft for its Tokyo hub. How many should it purchase?
- Airline investment: Why do airline companies batter each other over prices despite poor profits? Would you invest in this industry?
- Losing your noodle: You are the product manager for a noodle product company. You have two major product lines: cup products and block products. Your product lines are losing money. What should you do?
- Valuing acquisitions: Our client is considering diversifying into the insurance business. How would you go about valuing an acquisition in the insurance industry?
- Staff productivity concerns: The productivity of the sales & trading staff of an investment bank is much less than that of the competition. How would you go about improving it?

From Kenan-Flagler's case-book

Dead Wood (Bain)

Your client is a large family-run furniture business in North Carolina. While the company has a strong brand name and good distribution they suffer from the cyclical nature of the furniture industry and are looking to stabilize earnings. One of the family determines caskets might be a good option for the family. Determine if the company should enter the casket market.

Response

The interviewee can use the 3 C's or the following pseudo framework.

First off in most strategy cases is to ask why we're analyzing a certain case. While this case is and will be about the casket market, the interviewee needs to ask if there is another way to stabilize and increase revenues/profits. Maybe they can invest and hedge against the cyclicity of the industry. Another question is whether this family-run company wants to expand/complicate their operation? i.e., if Grandpa is about to die and the son/daughter wants to do social work instead. But on with the questioning.

Production:

- Does the company have the skills to make caskets? Yes. They're relatively simple to manufacture.
- Does the company have the access to more raw materials? Yes.
- Can the company hire more skilled workers if necessary? Yes. Tougher than one would think though.
- Would the workers have a problem making caskets i.e. rob them of their pride of production? Yes, but if the casket were made with the same quality as their other products, it would be less of a problem. Using the profits to provide health insurance would be a nice gesture.

Distribution:

- How can the company sell the caskets? Obviously they can't leverage their furniture business. But there is a network of casket dealers throughout the country they could use.
- Can the company get access to this network? Sure, if they provide a good product and high margins.
- What about other distribution modes i.e. direct sells, Internet, etc... Good question but a different case.
- How are transportation costs? Caskets are big and heavy and thus expensive to ship- limits the operation to the Southeast.

Finance:

- Does the company need to invest in new machinery? Yes. Amount about \$3MM. They can get a loan and the debt burden wouldn't be too heavy. What ratios/numbers would you look at to determine this?

Marketing:

What brand name to use? Discuss pros and cons of a brand name linking a furniture and casket maker. Name recognition, that creepy eerie feeling when you lie in your new bed, the cache of an Ethan Allen casket.

What price? Assume \$1000 But... Mkt survey, demand curves, etc..

How many caskets can we expect to sell? This is the question you have to ask and dreaded - let the calculations start. Assume only a domestic industry at first

250,000,000 people in America

Assume a 1% death rate (2% would also be reasonable)

2,500,000 dead people in the US.

50% use caskets (other options cremation, cryogenics, etc...)

1,250,000 casket users

Assume were selling middle to upper class caskets use 50%

625,000 middle to upper class casket users in the US

Assume that transportation costs are high- limits distribution to Southeast about 25%

Somewhere around 160,000 possible caskets to sell per year.

So the question remains how many can we sell.

What market share can we achieve? 30% or about 50,000 caskets a year.

What is our capacity? Hey 200 caskets a day. Thanks buddy

$200/\text{day} \times 250 \text{ work days}/\text{yr} = 50,000 / \text{yr}.$

So we may not get 50K the first year, but within 3 years sure.

So can we make money at this once we get going?

Price per casket \$1,000

Cost per casket \$900

Contribution Margin \$100

$50,000 \text{ caskets} \times \$100 \text{ per casket} = \$5,000,000.$

How does this compare to the core furniture business? Revenues \$80MM, Profits \$10MM

Based on numbers looks good, but...

- Will it affect the core business?
- Does it achieve the goals it wanted? Are there other ways to achieve this goal?
- Does the mgmt really want to own a casket company?

At the end of the case you are asked to vote for or against the idea. Do not waver. State your reasons and state a position. This is in line with the Bain culture

Golf Course (Bain)

A friend of yours has a money making opportunity and confers with you as to what to do. He wants to clean the golf balls out of the lake at the local golf course's infamous "13th hole". He has done a bit of research on the program and wants to know whether he should pursue this opportunity. Please advise.

Response

How many balls can he clean out of the lake?

There are 20,000 balls in the lake. He can conceivably get all the balls.

How many balls enter the lake per year?

1,000. You can assume that this is, has been, and will be a constant amount.

For how much can he sell a recovered ball?

All balls that have been in the lake more than 5 years are worthless. Balls in the lake for less than that are worth \$1 per ball.

How many of the balls can he sell per year?

He can negotiate a contract with the proshop to sell the balls. Their demand for used balls is 50,000/year and you would be their first supplier.

How much does it cost to recover a ball?

He has a PADI certified scuba buddy who will scour the lake collecting balls for him for \$10/hr. In one hour he can recover 100 balls

Can the scuba guy separate the bad balls from the good balls while he's collecting them?

No. He's got to collect them first and then determine the age.

How can he separate bad balls (>5yrs in lake) from good balls?

There is a mystical, magical machine he could buy for \$4,000 that will separate good balls from bad balls. This is merely a fixed cost don't let them linger in this black box.

Does he have any better options/opportunities with his time/effort?

He'll experience no opportunity cost.

Does he have a discount rate he wants to use?

Strangely enough, yes. He says a 10% return is appropriate.

Notes: Costs and Revenues

1st year: Costs = labor + sorting machine = \$2,000+ \$4,000= \$6,000.

Revenue = Good balls* price/good ball.

5,000* 1= \$5,000.

Profit = \$-1,000

Successive years:

costs = labor = \$100

Revenue = Good balls* price/good ball = 1,000* 1= 1,000

Profit = \$900

If they collect once a year,

Total profit = $\Sigma PV = -1,000 + PV(yr1) + PV(yr2) + \dots$

This last section could be evaluated as perpetuity in year 1 which would have to be discounted to year 0. Thus, $\$900/1.1 = \$9,000$ value in year 1. Thus, in year 0 this is worth $\$9,000/1.1$ which is \$8,181 subtract the \$-1,000 and get a positive NPV of \$7,181. If the applicant can do this, they'll probably get a job with Goldman instead.

Notes: Risks

The interviewee would be well served to state the risks involved in this venture. Some are:

- (1) What if someone sneaks in and takes the good balls after the bad balls are cleared out.
- (2) What if the proshop closes and can't sell the balls, etc.
- (3) What if you get competition in the used golf ball market and the price you can get is decreased?

Final Recommendation: Do it, sign contracts, and pray for the best.

Gas Guzzler (Corporate Decisions)

There's a lot of talk about fuel efficient cars being a good consumer purchase. A company is thinking of specializing in fuel efficient cars. They're trying to determine what price to use. Utility aside how much value are they giving their customers. Assume a car can be sold for \$20,000 that gets 20mpg. How much can the exact same car be sold for that gets 25 mpg?

Response

The interviewee needs to ask three questions-

- How many miles per year? 10,000 miles
- How many years will the car last? 10
- How much per gallon of gas? \$1.00

These numbers are given to make the math simple. If the interviewee wants to use other numbers...

So the normal car uses 500 gallons/yr. and the fuel efficient car uses 400 gallons/yr.

So, 5000 gallons over the lifetime vs. 4000 gallons, so its \$1000 ignoring the time value of money (nice to mention it though).

So the car can be sold for \$21,000 ignoring utility concerns.

Olympic Problems (A.T.Kearney)

You are in Atlanta during the Olympics. You work in a place like Centennial Park, where vendors sell different items, memorabilia, refreshments, etc. The area is divided into four regions, each of which has a region manager. You are a region manager. The middle of the park is on a very steeply sloped hill, and your region has an escalator that transports people from your region to the region adjacent to (and above) you. You are halfway through the Olympics, at the beginning of the second week, and throughout the first week the elevator has broken down quite often. This has been a major headache for you.

Q1: What are your alternatives for dealing with the escalator breakdown? (Think how to get people where they need to go, manage traffic, and fix the escalator)

Now you've called in the manufacturer of the escalator company to look at the elevator, because you want it fixed.

Q2: What are some of the issues you must consider in determining how best to solve this problem, once the manufacturer gives you some recommendations?

Now the escalator people come in, look at the escalator, and determine that a super-duper motor is specified for this escalator, but the one currently in use is a regular motor. He can get you a super-duper motor in and installed by the first thing the next morning. The cost is \$4000, but your entire budget is only \$3000.

Q3: What are your alternatives for funding this motor?

Q4: Which would you choose and why?

Q5: Given that this is your choice, how will you persuade the appropriate party to do what you need done? Let's mock it. Say I am that person and you have to persuade me.

Rings (A.T.Kearney)

The client is a class ring manufacturer. It is a national company, like Jostens, and it is organized into regions. It is the leader in the industry, with a 20% market share, followed by 3 other competitors that have 15% each. The remainder of the market has many smaller players. The company divides the U.S. into regions. The Southeast region is having a problem because its sales, on a per capita basis, are lower than in the rest of the country. He wants to know how he can increase his sales.

Company

- How do they sell the rings?
 - 90% of their sales are done through independent, "mom and pop" distributors who initially approach the principals. The principal will either allow them to sell in the hallways/foyers of the school or he won't. There are two ways that the distributor will sell these rings. Either exclusively, meaning he is the only one selling in that school (this is 90% of the time) or a dual arrangement, where another distributor selling another brand may also sell at the same time (10% of the time).
 - The other 10% of the sales are direct sales through our client's salespeople.
- Do the distributors sell several different brands of rings?
 - No. Any single distributor will only sell our client's rings; but the distributors may sell other items like tee-shirts or bumper stickers.
- How does that compare to how they sell them in the rest of the country?
 - In the rest of the country, they are sold almost exclusively through direct sales.
- Are their prices consistent across the country?
 - The client's direct salesforce follows the price list very closely. The distributors, however, are free to set their own pricing.
- This probably does affect the sales levels there, because the distributors are probably acting like mini-monopolies, setting price to maximize their own profit, rather than that of the company as a whole.

Competition

- How does the competition do in the South East?
 - Our market share in the Southeast is very similar to that of the country overall. Competitive pressures are not very strong.

Customer

- What is the nature of the customer?
 - You tell me.
- The customers are high school seniors, graduating. They may or may not be going onto college.
- What is the typical yield for selling in the schools?
 - It is about 50%.
- That seems fairly low, given that the students are kind of a captive audience.
- Why do the customers buy their rings vs. someone else's rings?
 - What do you see as differentiators among rings?
- They are probably somewhat of a commodity. Brand name recognition may influence it, but largely, a class ring is a class ring. Price must be a key consideration. Those students that

they lose will probably go to a jewelry store with a parent and buy a cheaper ring, if the distributors are pricing like monopolies.

- So what are the client's options?
- The company could change to direct sales in the Southeast. However, this seems like a relationship-based sale. The initial sale is really to the principal, and the distributors probably have strong relationships with the principals that they return to each year. This could have serious repercussions. However, something has to be done to increase the sales levels in the region.
 - What could the company do to improve sales with the existing distributors?

Wall Bored (McKinsey)

Our client is a \$700 million manufacturer of building products. The vast majority of their unit sales, revenues and profitability stems from the manufacture of wall board -- the gypsum and paper material used in building construction.

The client is troubled by the cyclical nature of the wall board industry. They typically will experience eight years of happy profitability followed by four to five years of misery. Our goal is twofold. First, we want to reduce the cyclical nature of the client's cash flows, then we want to grow the business profitably.

If you were leading the engagement team working with this client, how would you design the study? What issues would you want to examine?

Comments

Your basic commodity industry case. Please apply microeconomics and a dash of management accounting. I approached the first half of the question with the three C's framework - customers, competition, and company. Stated a hypothesis that went something like "sounds like a commodity case. As such I'll be looking for ways we can de-commoditize the product..." Or something.

Customers: drilling down this hole revealed that the company mainly supplied construction firms, customers totally vulnerable to the building cycle. They were weak in the retail building products channel and there seemed to be some opportunity there.

Competition: turns out the U.S. is divided into five building regions and our client dominates three. We discussed the possibility of penetrating the remaining two should the building cycle vary from region to region.

Company: used these questions to learn more about their distribution system and the relative cost of transportation. Discussed the possibility of having the construction firms cash and carry their own wall board since they seemed to have their own trucks. And the firm had plants virtually everywhere. This would keep the firm from carrying too many delivery trucks in the lean times. Also talked about flexible manufacturing.

The second half of the problem involved growth through geographical expansion vs. product diversification.

New Money or No Money? (McKinsey)

Our client is the CEO of a major regional bank. The bank owns a data processing company. Recently the president of the data processing company asked our client to invest \$100 million in new processing technology for the firm. The president felt that this investment would make them much more competitive. At this time our client approached us and said “\$100 million is a lot of money. Should I do this?”

If you were leading the engagement team working with this client, how would you design the study? What issues would you want to examine?

Comments

Question number one, before coming up with a hypothesis, should be “what’s a data processing firm?” Turns out they mostly process checks for small banks within the region. The president believes they can gain a greater share of these small banks with the new investment. We know from reading the newspaper that small banks are disappearing so immediately we have to be concerned about the customer base. Work this into a hypothesis.

My hypothesis was that this would be a bad idea because of concerns about the customer base.

This question would ultimately lead to a basic NPV analysis. But, to reasonably determine the cash flows we have to know more about the three C’s: customers, competition, and company.

It turned out that the customer base was shriveling, that the competitors for the smaller number of banks were huge and low, low cost providers, and that the companies cost structure and particular strengths would keep them from being competitive with larger players like TRW and Equifax no matter how much they invested in technology.

Recommendation: don’t spend the \$100 million, sell the data processing firm.

Truth in Advertising (McKinsey)

I'm shopping for a new car. I'm not really concerned about price. Instead, my number one concern is safety. I have kids and I want to know that they are riding in the safest possible car available.

Last week I saw a Volvo advertisement in the Wall Street Journal that proclaimed that Volvo made the safest cars in the world. Given this information, should I buy a Volvo for my next car? If yes, why. If no, why not?

Comments

The interviewer wants to know how attuned you are to the drivers behind an analysis. A natural first line of questioning would be to ask, "did the newspaper ad mention how they had arrived at the safest car conclusion?"

Turns out that in the fine print they describe the study. Volvo, or the National Transportation Safety Board, or the National Highway Administration, or someone else who might care about this stuff used motor vehicle registrations to determine the active fleet size of each make of car in the United States. Then they compiled data on the numbers of serious injuries and deaths that occurred on the roads for the previous year in which make of car. By dividing the numbers of casualties and deaths by the size of the fleet they arrived at a ratio. Volvo had the smallest ratio.

So is Volvo the safest car? Maybe. Or maybe Volvo drivers are the safest drivers. Or maybe all Volvos are registered in states where it never snows or freezes and the roads are all safe. Does the interviewer like to drive drunk, at high speeds? Maybe he needs a car that performs well under those circumstances -- a tank, for example.

Having established that Volvos are not necessarily the safest cars, the interviewer then wanted to know how I might design a study to determine the safest car. I explained that I'd want to evaluate his personal driving habits. If he drives mostly around town in a place where it snows all the time, then I'd want to run a bunch of cars full of crash test dummies up to a wall at 40 mph with ice on the road and hit the brakes at the last minute.

Push vs. Pull (Mercer)

Our client is thinking of integrating into manufacturing desktop computers. Given that they have decided to enter the market would you recommend they use a push strategy or a pull strategy?

Comments

A great approach would have been to make two columns with pluses and minuses for each approach. A great hypothesis would have been: “Given the high cost and quick spoilage of inventory in this industry I would most likely advocate a pull strategy. Dell computer does this with great success. They don’t make a computer until it’s sold.”

Then a methodical stepping through push and pull implications on promotion, channel management, inventory costs, supplier relationships and so on would have strengthened my case. I did none of these things.

Commodity Microeconomics (Mercer)

Our client is one of three players in a commodity industry. There are six manufacturing plants operating in this industry. Two belong to our client, two each belong to the other players. One of our client's plants is profitable, one is not. Both are operating at better than 80 percent capacity. Of the other plants in the industry, all but one are profitable.

Without trying to "crack" the case -- no competitive analysis necessary -- tell me what you think our client might do to increase profitability.

Comments

Knowing what we know about commodity industries, we should suspect that unprofitable plants means too much manufacturing capacity. We can not control the other plants but we can control our own. I would want to study the scenario of shutting down our unprofitable plant in conjunction with skimming our most profitable customers and shifting them to the remaining plant. This should eliminate our cash sump while raising the price of the commodity (lower supply and same demand now clear at a higher price). Meanwhile we can focus on the most profitable customers and, as an added bonus, we will have a plant in mothballs as a credible threat against new entrants thinking of joining the fun at a new, higher price.

Teflon Market-entry (BCG)

Your client is a Japanese manufacturer of a fluoroplastic material that has unique and valuable characteristics in the manufacture of other metal goods. The material's properties include: heat, flame, and water retardant, chemically-resistant, non-conducting, bondable to other metallic surfaces, and extremely slippery. The material is traditionally sold downstream to the manufacturers of other metallic goods. Specifically, applications for the product, manufactured in slightly different ways, fall into three general categories:

- 1) **Molding** - The material is used as a surface to protect the underbelly of cars and space aircrafts for the automotive and aerospace industries.
- 2) **Foaming** - In a warmed state, the product "foams up" around the outside of copper wire and cable. It then hardens around the wire or cable, forming a durable, protective, outer shell. Customers of the foaming product are in the telecommunications industry.
- 3) **Dispersing** - The material is sprayed on the surface of pots and pans and other industrial metallic products to give the products a slippery, non-stick surface. Customers make metallic products of all varieties.

The Japanese firm is considering re-entry into the highly profitable U.S. teflon market. In fact, it has already committed to the construction of a manufacturing facility in Decatur, Alabama. What should the firm's basic market entry strategy be, and how should the firm best position its product?

Response

What happened the first time the Japanese firm entered the U.S. market?

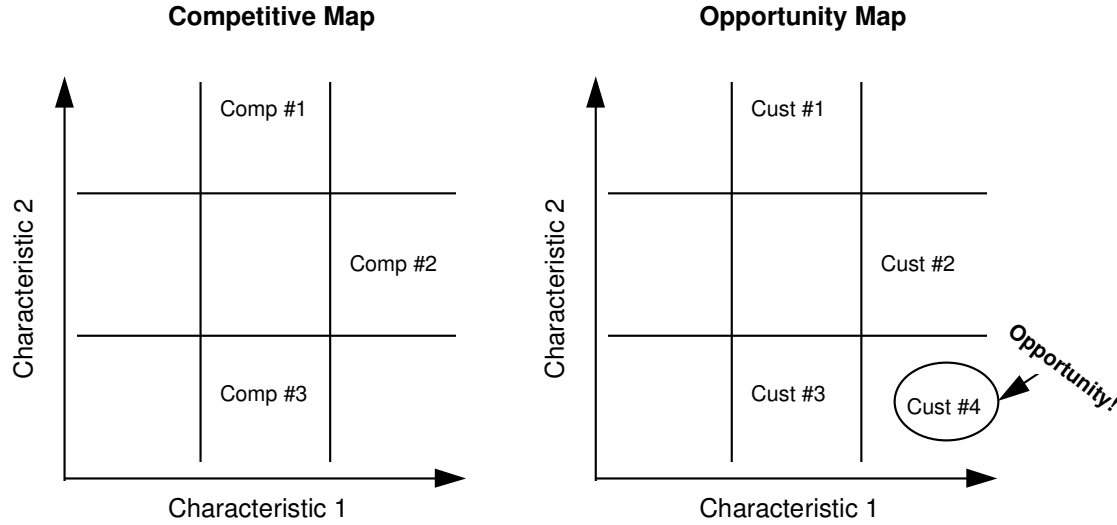
The firm was hit with a price-dumping suit by the market leader, and after a lengthy court dispute, was forced to pay heavy penalties and withdraw from the U.S. market for 24 months. Now that that time has expired, the firm is attempting re-entry.

What is the competitive landscape?

The industry leader is DuPont, the originator of teflon. They control 70% of the \$600M U.S. market. There are also three smaller niche players in the market, each controlling 10%.

Where are the market opportunities?

The interviewee should probe for how the product differs in each of the three application areas. If he asks the right questions, here's what he will learn. The product has certain finishing and raw material variations that make it unique to each of the major application areas: molding, foaming and dispersing. Further within each major area, there are minor characteristics that differentiate the product to different customers. Upon telling the candidate this, a picture of competitor positions and market opportunities on an opportunity space map would be nice. See below.



Market potential?

Upon probing, the candidate learns that the market is subdivided as follows:

	Revenue Size	Contribution Margin
Molding	45%	30%
Foaming	30%	50%
Dispersing	25%	30%

Where do the competitors reside in this picture? or, Why is the contribution higher for foaming? DuPont competes in all three markets. The three niche players compete in molding or dispersing (but not foaming). The reason is that only DuPont has perfected the science of foaming up the product, except for our client who can also do so. Therefore DuPont has a monopoly player status in this market. Here is where our client should position itself. Also, the candidate might question what the strengths and weaknesses of DuPont vs. his client are. DuPont has established relationships and brand recognition. His client has a superior manufacturing process, and product, with performance advantages. The market perceives these advantages from the last time the client was in the U.S.. The candidate would thus want to position his product as a performance leader.

Discussion of cost structures?

The candidate should attempt to think about how much the client can charge, and how much he will make. If he discusses cost structures, ask him to hypothesize about who might possess a cost advantage (DuPont or the client). Probably DuPont has a fixed cost edge given its established, partially depreciated plants. But might the Japanese make this product better, smarter, cheaper? Candidate could discuss variable costs:

Labor (about equal between our client in Alabama and DuPont in Connecticut)

Raw materials (about equal since they are commodities)

Manufacturing costs (about equal since the minimum efficient scale is achieved at 10% total market share)

Distribution costs

(no size advantages for DuPont).

Pricing?

Press the candidate for how the product should be priced. Should they discount price (more share gain, but chance of getting hit with another price dumping suit, and also chance to get into a losing price war which DuPont is better able to handle), mirror price (less share gain, but less risks), or premium price (and chase the high end niche). He should arrive that a mirror strategy is probably best since you will tell them that there is no real justification for a premium price.

One final note, if the candidate asks (and he should), he will learn that price discounts are always met by DuPont in its teflon markets, so the likelihood of a price war is high if they discount price.

Note..... if candidate selects discount pricing strategy, he probably missed the boat!

Telephone Manufacturing Competition (BCG)

Your client is a telecommunications equipment manufacturer in Chicago. His product is business telephone sets, for use with private branch exchange (PBX) switches and centrex service. The client has a corporate growth hurdle rate of 6%, but your client's division is only growing at 3-4% per year, and the industry is only growing at 2% per year. Why is the industry growing so slowly, and what should our client do about it?

Response

After struggling with the question of why the industry is only growing 2% per year, the candidate will deduce (or be told) that older generation products are being bought up and resold by telephone resellers. The products are advertised and sold directly through a telecommunications trade magazine (called Telecom Gear), which has 60 pages and is published monthly. Thus small businesses are deferring the purchase of new phones by using very reliable, feature-rich used telephone sets instead.

Why the growth of used equipment resale?

Candidate can arrive at some of these on his own, or be given some of the rest. Try to let him struggle with these for a little while. Basically, Price, delivery speed, easy small quantity ordering, the slower evolution of telephone technology (as opposed to the evolution of PC technology), and quality/reliability of the product are responsible for growth in the used market.

What's the competitive environment for new equipment sale?

AT&T, Rolm, and Nortel are the big three gorillas --- 33% share each. Assume our client is one of the three. For the used equipment, it's mostly small outfits.

Should I enter this new market?

Candidate should probe for and use all of this data. The new equipment market for us is \$100M in revenue. The used equipment market is \$6M in revenue. The used market is highly fragmented with no player owning more than 3% market share. So, even if we were able to grab large share (like 25%) of this market, that \$1.5M in additional revenue would not be large enough to move us from 3-4% per year (on the \$100M) to the 6% corporate hurdle rate. Also, entering this market may cheapen or damage our brand identity. Probable answer then, is no. But the used market is growing at 30% per year. So, will entering this market now help us compete in it later. Probably.

Target markets for used Telecom Equipment

Two targets. First is small businesses who are price sensitive. Second is small quantity purchasers in larger businesses who buy used because it's quick and easy, and it's priced right. Also, both segments appreciate quick delivery times.

How do I fend off growth in this used market?

Licensing -- our lawyers tried and failed to prevent these players from selling our used products.

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

Change the standards – alter the standards on our new phones and switches every couple of years to make old phones incompatible with them. This strategy would hurt the used vendors, but might tick off our customers as well.

Buy back our own used equipment – this is a possibility, but it's also very expensive. A variant on this approach might be offering trade-in for a customer's older, used phones.

Spin off a lower line new product – this will make our new product more price competitive with the used product. The key here is trying to find what it is that customers like about the used product, and trying to match this with our new products (i.e., price, delivery speed and frequency, customer service, etc.).

Automobile Market-entry (BCG)

Your client is a joint venture between two European (German) companies (later learned this to be Mercedes-Benz and Swatch) who have developed a new automobile. The car was designed for the European market, but your client would like to know the viability of introducing the car in the U.S. market. The car itself is 98 inches long (2.5 meters), has two seats, two doors, a 55 horsepower engine, and gets excellent gas mileage. It is very small, low cost, and its design was driven by new technology. For example, this car is the first of its kind to offer detachable body parts to facilitate easy changing of car colors, and its interior micro-electronics technology is state-of-the-art. The car comes in two varieties: a regular hard-top version that would come fully loaded for about \$11,000 US dollars, and a convertible rag-top that comes similarly equipped for \$14,000. For purposes of this discussion, consider only the introduction of the hard-top version. Your client would like three questions answered:

- 1) How would you segment the U.S. automobile market?
- 2) Which segments would this car most likely address?
- 3) How would you handle distribution?

Response

Question 1

Car customers can be segmented in a number of ways. For example: income level, sex, state of life (i.e., married without children, married with children, single, retired, etc.), age, geographic location (i.e., live in a city, a neighborhood, in a rural area), according to the criteria the consumer uses to make his car purchase decision (i.e., sex appeal, styling, features, price, practicality, etc.), or simply by type of car purchased (i.e., sport utility, sports car, 2-door sedan, 4-door sedan, wagon, etc.). Probably does not matter which angle the candidate takes, but he should offer some level of detail in how he would pursue his chosen approach. Candidate could also make a stab at market size for the segment he is targeting based upon his segmentation. The interviewer offered that BCG segmented the car market along three parameters: income, stage of life, and car buying criteria used. BCG loves little pictures, and showing these three segmenting parameters in a small 3-D matrix was well received by the interviewer, and he referred to the drawing again later in the interview.

Question 2

This car will address the middle to lower income segment (rag-top might be different), males or females, probably commuter stage of lifers without kids, young folks, urban dwellers (great for parallel parking), and consumers who buy based on practicality and maybe styling. Candidate could discuss potential competitors: Geo, Saturn, Chevy Cavalier, etc.. Also could make some hypothesis about projected market share capture. This would make it more complicated, and I didn't do this in the interview, but if you want to make it more fun, consider how many competitors are out there, how evenly distributed the market is, and what it takes to succeed. This leads to the more interesting...

Question 3

Candidate will need to investigate how the client currently markets cars in the U.S.. Well, they have a series of high-end dealerships all over the country, and an established reputation for

quality of engineering, styling, performance and reliability. The brand is top-notch in the states (let the candidate dig for this, because this is the most important part). The dealerships would be a nice distribution medium for the client. But what about the translation of the brand name. Wouldn't this low end car damage the existing high end reputation of the existing brand (probably)? What about the price elasticity of demand of the two consumer segments (high end versus low end)? High end buyers are more price inelastic (they purchase on performance, brand, etc.), while the lower end buyers are more price elastic (they purchase on price). How will our existing lattice of dealerships do in marketing such a different product to such a different target market? Probably the only viable solution would be to create a new brand name and a new network of dealerships, or at least let another type of dealer sell the cars for the client. So, brand transferability is critical to the question of distribution. By the way, BCG advised the client not to enter the U.S. market, primarily for the reasons discussed here.

U.S. Photographic Industry Re-entry (BCG)

Your client is a manufacturer and distributor of specialty photographic products in the US. The products include all essential materials used to make the printing of a newspaper or magazine happen, including but not limited to: imaging plates, film, specialty lights, and developing fluids. The client is the #1 provider to newspapers nationwide. However, the client does not have a presence in the commercial market. The commercial market includes magazines, brochures, and any other type of glossy publication printed in the US. The client has already failed once in penetrating this market, and would like help developing its re-entry strategy into this profitable market. Why did the client fail the first time, and how should he proceed this time?

Response

Competitive Landscape

There are 5 large competitors. We lead the Newspaper Market with about 40% share, the other four have about 15% each. The other 4 split the Commercial Market, with about 25% each. We have none.

Company (Strengths and Weaknesses)/Customer (Market)

Start off trying to understand what makes the company tick. Since it is extremely successful in the Newspaper Market, but has failed miserably in the Commercial Market, the candidate should try to understand what has made the client successful in the former, and what are the differences between the two markets. Basically the company has succeeded by manufacturing the highest quality product in the Newspaper Market, and by developing a set of relationships with the 300 major clients. So, it's success has been based on quality of product, and distribution through superior relationships. This should lead the candidate to further questions....

How is the client's quality in the Commercial Market?

The client has a quality problem here. He has received feedback that his product is not up to snuff, and he says that the manufacturing people are blaming marketing for promising specifications that operations cannot deliver, while marketing folks are blaming operations for delivering a product not up to par. The client wants to know who is to blame? Pose this question to the candidate not very long into the case.

This is a toughie. Probably neither is to blame. A discussion about the misalignment between marketing strategy and manufacturing strategy would be excellent. Upon probing, the candidate will learn that what it takes to succeed in the Commercial Market is different than what it takes to succeed in the Newspaper Market. Newspapers are characterized by higher volumes (an average order is about 9 times as large) and lower variety, while Commercial Markets by lower volumes and higher variety, with more emphasis on meeting individual product specs for each of the different commercial clients. So, in the Newspaper Markets, operations is making and marketing selling a regular, high volume, standardized high quality product. They are aligned. But in the Commercial Markets, operations is still only prepared to build high volume, low variety, while marketing is off selling what the customer is asking for, unique specs, high variety, and low volumes. They are not aligned.

In addition, the quality required to satisfy Commercial clients is different. The nature of the printing process requires more exact print types, requiring more intricate photographic products. Our client is not prepared to satisfy these requirements.

What is the cost of this quality?

Tell the candidate if he probes here that to achieve this quality he must lay out \$6M in machinery investment. Ask him whether this is a worthwhile investment. The candidate could talk about the size of the market, and different competitor's share, and hypothesize what the client could expect to capture given this investment. I didn't get specific numbers, but just talked in terms of using WACC to pay off these fixed assets with a projected stream of future earnings in this market. This analysis lets the candidate show off some finance competence. Also, he could talk operationally about different types of quality (performance vs. conformance), and the cost of 6 sigma (or some other level of) quality, and the ramifications that quality has on the process, labor, the culture, and the bottom line.

What other differences prevent the client from succeeding in the Commercial Market?

Let the candidate struggle over this problem, but the primary problem is a tip you gave earlier. The Commercial Market is characterized by many smaller orders, while the Newspaper Market by fewer, long-standing high volume orders. There are only about 400 major newspapers in the US, and our client's sales force of 75 has great relationships with all of them. In the Commercial Market, there are over 34,000 clients nationwide, touched by a lattice of about 1,200 dealers. So, distribution is different. Our salespeople can't touch everyone so easily in this new market. Also, the Commercial Market is characterized by long standing orders with each of the clients. Usually a client will select a photographic product vendor and stick with him for 5 to 7 years.

Is this an opportunity or a threat?

Both. It is an entry barrier, which prevents our client from accessing all new business in the first year -- he can expect only 15-20% of clients to be in search of a vendor this year. But it is also an opportunity, because once you win a client at a so-called "bake-off" or "beauty pageant" put on by one of the distributors, you are locked into that business for 5-7 years. So your sales people can focus on the next batch of "shopping" clients in years 2-5.

How do you reach these 34,000 clients with 75 salespeople?

This is the question I was forced to drill down on so hard. I don't think there's a real answer. Obviously you can't visit every client on a regular basis, or even once. You generate too little volume per client to justify personal touch. Hypothesizing making offers to the distributors is a good thought, but it turns out every little special perk we try to offer the distributors is matched by our competition, who have longer standing relationships with them. I finally proposed an indirect sales model (similar to Dell's), where you can only access our product over the phone (or Internet), and then it is delivered by mail. But we'll offer the best quality, whatever customization clients could want, and at least a 10-15% price break against the competition because our SG&A will be so low. And we'll advertise and promote the heck out of ourselves to grab initial share. I don't know what the real answer is here, but let the candidate exhaust his thinking and struggle a bit about the question of distribution.

Surgical Supplies Competition (McKinsey)

Your client designs and manufactures custom surgical kits for hospitals. The surgical kits are pre-packaged, pre-sterilized, disposable, and designed to service a specific operation for a specific doctor. The kits are extremely popular in hospitals because they are customized for each individual doctor, and they free up nurse and operating room preparatory time. Therefore, if looked at from a total hospital cash flow perspective, these kits save the hospital a lot of money, even though our client charges a heavy price premium. But recently, the client's profits have been heavily eroding, and he wants to know why, and what he can do about it. He also wants to know about the future of profitability in this industry.

Response

Price

Our client has not changed his price. The candidate should press somewhere during the interview to find out that our client offers the service of kit customization for individual doctors for free, and then tries to make it up by charging a high price (relative to the competition) for the kits. The cost of customization is very high for our client, requiring medical specialists.

Volume/Competitive Landscape

Since our client is not charging a different price, the candidate will quickly learn that profits are eroding the last two years because competition is stealing share. What is happening is that copy-cat firms are approaching hospitals with cheaper kit manufacturing prices. We custom design the kits for hospitals, the hospitals give the kits to these copy-cats, who produce it at lower cost.

How do we become more cost competitive?

Labor. We produce in South Florida using retired labor. We pay a premium (about \$8-12 per hour) over our competition (about \$0.50 per day) who manufactures in Mexico. Suggesting moving our production overseas is a good thought, but our client views his business as contributing a more humane benefit to society by employing these retired folks. This is more important to him than "profits at all costs."

Raw materials. About equal for our client and the competition.

SG&A. This is another primary area where we are not competitive. We are paying all these specialists to custom design our kits, and then the copy-cats come in and steal our business. We are clearly paying well above the competition here.

What else can we propose to compete?

One solution to propose to the client based on this finding is to charge two prices, one for customization of the kits, and another for manufacturing of the kits. This will help bring us in line with competition. Another alternative might be to lock our hospitals into long term purchase contracts when we custom design kits for them. We could also try to prevent the copy-cats from mimicking our product with patent protection or law suits, but our attorneys attempted this option first, and were unsuccessful. Other far-reaching possibilities might be M&A. We could buy out some of the competition. We could also try to redefine the distribution channel, and go directly to HMOs, or try to generate pull for our specific product from the doctors themselves, who probably like us for our highly-skilled specialists. What other solutions might you propose?

Soft Drink Product Redesign (McKinsey)

Your client is a major soft drink company. He has been approached by his bottling company with a proposal to change how six packs will be packaged. Instead of using the standard cardboard boxes that hold individual six packs, the bottling company would like to use a plastic device that holds the six pack together by clinging to the top of each can. Is this a good idea?

Response

Manufacturing Cost Impact

Consider what fixed cost investment, or increased variable costs the bottling company will charge to make this switch. Cardboard is probably more expensive than plastic, right? What about supplier power for these two materials. Any difference? How will the fixed cost investment in plastic production be passed on to our client? All issues that should be considered?

Marketing/Revenue Impact

Consider who our client's customers are (grocery stores, 7-Elevens, etc.), and what they want. Does the plastic make it easier for them to stock their shelves, or is the standard cardboard better for stacking? What about his customers? Do they want to walk out of the store with plastic or cardboard? Propose some market research, and try to determine whether switching will affect the price you can charge per six pack, or the volume of six packs you will sell. These answers will tell you whether it's a smart thing or not.

Competitive Considerations

Is our client a market leader, or a market follower? Has the competition already done this, or will he be doing it in the future? Will making this move give us a strategic competitive advantage, or is it necessary to just keep up, or is not necessary at all? I don't know any of these answers, but these are the areas I told the interviewer I was going to look out. What else might you consider?

Theatre Company in Atlanta (McKinsey)

Your client is a non-profit Shakespearean theatre company in downtown Atlanta. The theatre currently performs in a huge circus tent during the summer, from May through August. The company has designed and constructed a new, indoor facility, and would like guidance on its overall business strategy.

Response

What is the mission of the company?

This is an important first question, especially given that the theatre is a non-profit entity. The mission is altruistic, to be the premiere classics theatre in the Southeast, and to educate the populous of Atlanta on Shakespeare.

Revenue/Cost Implications

Candidate should set up the financial plan for the company. Write the cost of the new building down as a CAPX, and then project revenues and costs that would go into the future financial forecast. If you want, press the candidate to detail what major components would go into such a financial model.

What is the style of our productions/ How do we serve our target market?

The company is casual, leveraging the tent atmosphere. It's outside, with lots of picnics. Our audience dresses casually, brings kids, is middle-upper class (mostly over \$100,000 salary), educated, predominantly white, and mostly over the age of 35.

Will the new building maintain our image?

Yes. The new building is constructed of stone and concrete to look just like a giant tent, and it has detachable walls to feel like an outside tent in the summer?

What is the competitive landscape?

There are 40 other theatres in Atlanta. Candidate might also hypothesize that sports, universities, museums, festivals, etc are competition for the company.

Other market segments?

Candidate should consider ethnic mix. What about offering shows targeted toward African-Americans, Latino-Americans, Asian-Americans, etc.? Also, consider senior citizens, children, schools, other large groups of people.

When are current shows/ When are other chances for shows?

Currently, there are 3 productions during the year, 6 nights per week, none during the day because there is no AC in the current facility. But the new facility will have AC, so matinee shows, especially on the weekends would be good. But also we could offer matinees during the school day, and offer specials for schools to visit us with class field trips for a reduced rate. Also what are the incremental costs (operating, etc.) and revenues associated with doing these additional types of shows. Set up the financial analysis that would need to be done to consider these alternatives.

Pricing

Currently ticket cost \$15 apiece and there are few discounts. Candidate could discuss merits of offering group discounts, matinee discounts, family discounts (since this appears to be our target), schools, senior citizens. There are pros and cons associated with doing this.

Promotion

Where could you advertise? Where should you? I got no data on how much they spend, but you could make some stuff up. How else could you reach target markets?

Product

What about other types of shows besides Shakespeare. Other classics would be in keeping with the theme, but what about branching out with different shows to reach the different segments. What are the pros (more targets, more revenue) and cons (lost theatre identity, competitor response) of expanding the focus of the company?

Steel Throughput (McKinsey)

Your client is a steel manufacturer in the Midwest. The new CEO would like to improve his throughput of steel ultimately produced. Can you help? First question, what are the three ways that you can improve throughput?

Response

Throughput can be improved in three ways:

Run longer – eliminate machine problems, reduce setups and setup time, and increase shifts.

Run faster – increase the rate of the process.

Run better – reduce the number of rejects.

Candidate obviously won't think of the Run longer, faster, better terminology, but should reasonably describe each, flexing his ops muscles.

Is there demand for increased amounts of the product?

IMPORTANT QUESTION. The new CEO doesn't need to increase throughput unless there is need for more product, which in this case there is, since we can use more steel in other parts of the company in the production of steel products. Candidate shouldn't just jump to the answer without considering whether the question is a good one. If there isn't demand for additional product, then perhaps we should work on improving quality, differentiating our product, or cutting costs instead of increasing throughput.

How does the process work?

Thought you'd never ask. There are three main steps. If candidate doesn't ask some facsimile of this question, help him out or shoot him for not being more perceptive.

First, raw material (iron ore) is smelted in a blast furnace into liquid iron.

Second, oxygen, scrap and liquid iron are heated into liquid steel in an oxygen furnace.

Third, liquid steel is cooled and cast into slabs.

The process works in one hour cycle times per batch. The company currently produces 5,000 pounds of finished steel slabs per hour.

What are the capacities of each step, and what are current production levels? -- or --- Locate the Bottleneck.

First probe the candidate on where he would locate this information. Answer is through machine operators on the floor, through competitive intelligence (other McKinsey studies for example), and by contacting the distributors of the machines used in each stage of the process. Answer to the question.

The blast furnace has a capacity of 10,000 pounds per hour, but is currently making only 5,000 pounds per hour. The oxygen furnace has a capacity of 5,000 pounds, but the operator confides they have been known to do 6,000 on occasion. Cooling and casting has the capacity for 10,000 pounds, but also only produces 5,000. So process 2 (the oxygen furnace) is the bottleneck.

Candidate should phrase his search for the bottleneck in the process before he starts probing for capacities.

How can we increase the capacity of the oxygen furnace?

Add another machine (we can't, not enough space). Outsource this process (we can't because transporting hot iron ore is extremely expensive). Increase labor or shifts (we can't, we're already maxed out). So, the candidate should try to understand the process more completely.

When he does (nugget one), he will learn that oxygen is not entering the furnace at a fast enough rate to maximize the production of the furnace (stated by the manufacturer of the furnace to be 10,000 pounds per hour). We need a larger valve to allow more oxygen into the furnace. Let him struggle to find this one by really probing about the process --- make some stuff up and let him really dig, the drill here is to find out how inquisitive he is, let him draw a picture, etc.

Second nugget is that the testing procedure is really cumbersome. The operator has to take a sample and walk down the hall, and treat the sample before he can finish the batch. This takes time. He eliminates the test and can increase his production to 6,000 pounds (that's how this should be discovered, by interviewing the machine operator to learn how he can achieve 6,000 occasionally), and the nice thing is, there seems to be no adverse impact on rejects when he does this. So, is this test necessary? Perhaps not. If it still is, perhaps we could move the test closer to the furnace. Ah-ha, these are the nuggets of the case!

What are other ways we could increase throughput?

Improve the morale and quality of labor. Run longer shifts, or more per week (which is impossible since we are currently running 24x7). Add machines. Increase the size of current machines. All of these aren't viable, but each should be mentioned. Others??

Garbage

I am the town commissioner for a small town. We currently use the county trash service. This service is unprofitable and provides marginal service for my citizens. I have spoken with the private garbage service that services a neighboring town about what they provide. You are a consultant I have retained to analyze the data I have collected and to advise me regarding what to do. Please comment on risks / opportunities if I choose to privatize the refuse service.

Response

What are the requirements?

Trash service should be once a week, it should cost each family NO more than \$150 a year. A 10 year contract is acceptable.

Size of the town

There are 200,000 people in the town and the average household size is 4 people in one house. The town is fairly small geographically.

What are the costs of this private service?

- Labor: \$1200 per truck per week to man a truck.
- Trucks: we currently do not own any trucks and they cost \$50,000 each. Also, they cost \$10,000 for gas and service per truck for one year.
- Dumping: It costs \$100 per dump.

What is the capacity?

A truck can hold 10,000 gallons, it take 4 hours to fill a truck and every family produces 100 gal/week. Thus a full truck holds the weekly garbage of 100 families.

Is there overhead?

Negligible.

Do you have the cash? How will the trucks be funded?

With cash all in the first year.

Please calculate on a weekly or yearly basis.

Are there any other uses for the trucks?

Well, currently, no recycling is being picked up. Maybe we could establish that?? I think that to equip each truck with recycling ability would cost \$5000 and there would be minimal additional expense associated with sorting and dumping recyclable materials.

1 truckload = 100 families

1 truck for 1/2 day

2 truckload = 200 families

1 truck for 1 entire day

10 truckload = 1000 families

2 trucks for 5 days

500 truckload = 50,000 families

50 trucks for 5 days

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

Costs year 0:

TRUCKS		SERVICE		LABOR		DUMP FEE
50*50,000	+	50*10,000	+	50*1200* 50 wks	+	100*500*50
2.5 M	+	.5M	+	3.0M	+	2.5M
total = \$8.5 million						

Costs year 1+

TRUCKS		SERVICE		LABOR		DUMP FEE
0		.5M	+	3.0M	+	2.5M
total = \$6.0 million						

Revenues:

\$150 x 50,000 families = \$7.5 million

year 0: \$7.5 - \$8.5 = (1M)

year 1+: \$7.5 - \$6.0 = 1.5M

so go with the private service

The added cost of putting recycle gear on the trucks is worth it. You could likely charge more for this added-value service.

Opportunities: added incentive if garbage service is private, will prevent future financial loss from providing your own service, good PR/marketing to attract future residents or businesses to the town, outsourcing may draw from a better labor pool, this outside firm bears the risks

Risks: lose control, will not share in the upside if the outside firm does well, loss of employment for those currently working for local trash,

Additional Questions (No Solutions Provided)

- **Sears (A.T.Kearney)**: The client is a national retailer, like Sears, with 800 stores in the US plus service facilities in business to repair sold merchandise. The service facilities are not located with the store, but are usually nearby, like across the parking lot. The client wants us to give him a pricing strategy for the provision of these services. Give me your approach, your hypotheses, and the types of data you would need to collect.
- **Dish Distribution (Booz Allen Hamilton)**: The client is a dish manufacturer. This company sells dishes and nice pots/pans to stores like Williams-Sonoma and large department stores (Macy's, Hecht's). The client has its own trucking/logistics organization that delivers the product throughout the country. The client has one manufacturing facility in Tennessee. From there, the product is shipped to one of 10 distribution centers throughout the U.S. The product is then delivered, either on a truck, or if it's too far to deliver by truck, via air freight, to the retailer. The client thinks that his distribution costs are out of line. How will we determine if they are?
- **New CEO**: If you were a new CEO in a defense contracting firm (they build tanks and other stuff), with which 4 people would you meet first and why? (Some answers we've heard before: your secretary, the former CEO, a line worker, a Wall Street analyst, the government purchasing contact from the DOD, the head of mktg, the CFO, a worker that had recently left the company for another firm)
- **Plants and Plans**: A local nursery (plants not babies) is looking to expand into a regional player. Please explain the possible advantages and disadvantages of this decision.
- **Direction Stage Left**: Please explain how to get to your house. (Clarity is good but most people forget a few of the following questions: Did you give me the destination and phone number first? Why do you want to come to my house? When? Where are you now? How are you going to get there?)
- **My House or Yours**: A local supermarket is thinking of offering a home delivery service. What do they need to think about?
- **Floral Conundrums**: A florist selling a wide variety of flowers in an urban downtown setting has a lot of trouble determining volume. She is often stuck with a lot of flowers on Friday afternoons. What can she do to get rid of the flowers?
- **Chez Vous**: Please analyze the restaurant market in Chapel Hill and determine what type of restaurant would stand a good chance of success if you opened or invested in it.
- **Where's the Synergy**: Two electric companies want to merge: In the post merger integration, what factors might make the merger a failure?
- **Reduce, Reuse, Recycle**: A local recycling company is looking to grow their business by 25% per year. What are their alternatives?
- **EV**: Your client is a large automobile manufacturer and is committed to developing the market for the electric vehicle. They are thinking of purchasing an electric company so that they can install electricity service stations to provide the infrastructure for their vehicles to make them more attractive. Please help this company think through this opportunity.
- Without cutting costs, how can a firm increase its profitability?
- A microbrewery that has had a long string of success is now losing market share. What has happened?
- Please explain how a monopoly should price if looking to maximize profits? Revenues?

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

- Please explain the prisoner's dilemma.
- When should a firm forward integrate?
- What determines the interest rate in the U.S.?
- What is the demand elasticity for coffee?
- The fourth largest company in the diaper industry just introduced a new product thinner diaper with high absorbency. How should they position it?

From Wharton's Case Book

Big Mac Light

McDonald's is thinking about offering health food in the U.S. In broad terms, it is considering three strategic options: 1) Roll-out dedicated health food restaurants; 2) Integrate a health food menu into their current restaurants; 2) Forget the entire health food business all together. How would you analyze this business opportunity for McDonald's?

Interviewer Heads-Up

The point of this case is to have the interviewer analyze various related issues McDonald's must face in regards to its decision and then conclude with an actual recommendation. Your task is to assist the interviewee drive towards a solution, and then assess the thoroughness of the recommendation.

Case Discussion

There are many ways to solve this case. However, the candidate should be able to discuss the following basic analyses during the interview:

Market Definition What is health food? McDonald's defines health food as all non-red meat-based restaurants. This includes Kenny Rogers Roasters, Koo Koo Roo, Boston Market, etc.

Competitor / Industry Analysis Determine overall industry attractiveness based on the degree of competitor rivalry and each competitor's positions.

Clearly there are a large number of competitors but they share common weaknesses: they are smaller than McDonald's; lack the multi-unit management expertise of McDonald's, and lack the advertising resources of McDonald's.

Market Analysis Determine overall market demand for health food. The market analysis can be conducted in numerous ways: Look at sales of other health food restaurants; look at sales of health food grocery stores / products; survey current McDonald's customers; survey potential customers.

Company Capabilities What core competencies and transferable skills would McDonald's be able to leverage from its traditional fast food business?

Clearly McDonald's will be able to leverage its marketing skills and administrative skills (e.g. overhead activities). However, McDonald's will need to develop an entirely new set of operational routines. They will need a new "assembly line", identify new "raw materials", and probably new equipment.

Costs and Risks What are the costs (fixed and variable) in establishing a new health food store. What are the risks involved? Both of the potential "Go" options involve high costs and risks.

Key issues to consider: How does any new initiative affect McDonald's brand name. The firm will most likely have to develop a new name if they launch a full scale chain.

What additional costs will be incurred with each option: training, new store locations, menu design costs, store start-up costs, etc.

Case Solution

Clearly there is no right answer. Rather it is more important to be able to discuss what approach you would take and what you would want to analyze. Moreover, your recommendation should be based on the logic you discussed during the interview. If you said a new brand name was important, you shouldn't recommend that McDonald's should launch a healthy food menu in its existing stores.

Count the Fries?

How many individual french fries does McDonald's sell in the U.S. each year?

Interviewer's Heads-Up

This is a simple estimation case. The candidate should come up with a number.

Case Solution.

Since this is a estimation case, we'll just cut to the chase. Here's the answer.

The Algebra is:

restaurants in the U.S. X # fries sold per store

restaurants:

= average number per city X # cities in the U.S.

= 1000 cities X 10 restaurants per city = 10,000 stores

fries per store:

- each store has four registers
- each register is active for 8 hours a day
- each register sells 1 package of fries every 10 minutes or six per hour
- each package of fries contains 50 fries
- assume store is open 365 days

Thus we have:

4 registers X 6 packages per hour X 8 hours per day X 365 days per year X 50 fries per pack. Using approximate numbers we have:

$4 \times 6 = 24 \rightarrow 25$ per hour

25 per hour X 8 hours per day = 200 per day

200 per day X 360 days per year = 72,000 packs per year

70,000 packs X 50 fries per pack = 3.5 million per store

3.5 million per store X 10,000 stores = 35 billion individual fries!!!

Whew!!

Reverse Mortgages Market-entry

You are working for the CEO of a financial services company in San Francisco which lends to high-risk individuals. The CEO reads about a bank in Florida that is offering reverse mortgages. The CEO wants to know if he should offer this product.

Interviewer’s Head-Up

This is an estimation case with a few strategic issues scattered at the end. The key is to have the interviewer estimate the market potential for this product and then compare the expected costs of distributing the product.

Case Discussion and Solution

What is a Reverse Mortgage?

A Reverse Mortgage, as the name implies, is the inversion of a normal mortgage. The bank pays you an annuity stream in exchange for the proceeds from your house when it is sold. The sale happens when you die or go into the nursing home. The bank will only provide a reverse mortgage for up to 50% of the market value of the house

Market Estimation

The key is that this CEO is looking at the San Francisco market.

Variable	Value	Comment
Population of San Francisco	2 million	
% of population that is retired (>65)	10%	San Francisco is a “young” city.
% of retirees that own majority of equity in their homes	75%	The equity value of the house = market value-mortgage value. So only people with lots of equity would be interested.
% of above with low incomes (<\$30K)	2/3’s	People with high incomes don’t need an annuity

This gives us an approximate market size of 100,000 households.

Revenue Estimation

The bank charges a 1% origination fee on value of total equity mortgage. Assume each household has a mortgage of \$200,000. Loans are securitized so the bank doesn’t receive any interest payments. You can assume a 5% market penetration rate.

Thus we can calculate the estimate revenue:

- 100,000 households X
- 5% penetration X
- \$200,000 mortgage X
- 50% bank loan value X
- 1% origination fee =
- \$5 million in revenue

Costs

A major obstacle the bank faces is product distribution. The bank will most likely have to use a direct sales force (very expensive) to reach its target customers.

Summary and Wrap-up

The market is too small to bother with, especially since the product is easy to copy. Plus, the reverse mortgage offers few synergies with existing clients.

Supplier Management

Your client is a large HMO. They are interested in developing a strategic approach to managing their suppliers. Their suppliers fall into four broad categories:

- non-medical supplies (paper, copy machines, etc.)
- non-medical services (janitorial, lawn-care, etc.)
- medical products (Q-tips, MRI machines, sutures)
- medical services (specialist doctors, nurses, etc.)

The client wants to know: how should it manage each of these suppliers groups to improve its profitability.

Interviewer Heads-Up

This case is purposefully ambiguous. Let the interviewee struggle to grasp what you are looking for. The key is to let the interviewer determine different approaches for segmenting their supplier base. A tip to give the interviewer is to ask "What do you want from your suppliers?" You should help guide the interviewee towards the solution below.

Case Solution

This case is a difficult one because it doesn't provide any details. How a firm manages its suppliers will vary according to what the firm seeks from its suppliers. A simple way to frame this problem is to think about what a firm wants from its suppliers. An obvious desire is to obtain the lowest cost possible, not the lowest per unit price, but the total costs-defect rates, late deliveries, etc.

Another key variable you would desire that is less obvious is revenue enhancement. This means that suppliers can provide value-added supplies/services that help you gain some competitive advantage in the market place.

What you end up with is a simple 2X2 matrix shown below. The text within each corner describes how you would want to manage the different suppliers.

Total Cost	High	Encourage Competition (Non-medical services)	Selectively Buy (Medical Services)
	Low	Bid on Price (Non-medical supplies)	Lock-in with Contracts (Medical Products)
		Low	High
		Value-Add	

Classical-music Radio-station

WFLN was the only classical music radio station in Philadelphia, but recently it changed its format to alternative music after it was bought out by a new owner. As a result, there is now no classical station in Philly. What do you think about the prospects of opening a new classical radio station in Philly?

First, I'd like to take a look at four major "buckets of questions." One—is there in fact a market for classical music in Philadelphia? How many people are interested in classical music? What types of segments exist among radio audiences? Two—let's look at the customers. Not just the consumers who will listen, but actually the advertisers who will be generating revenue for the station. Three—what sort of competition exists, not just radio stations, but other forms of entertainment media for this audience. Four—what sort of company would need to be built, and how would I get the resources and expertise needed to run a classical radio station?

Sounds like a good structure. Let's talk about the market first.

Philadelphia has about 2 million people in it...

...but let's take the entire listening audience of the greater Philadelphia area to be about 4 million.

OK. The first segment I'll look at is what I'll call the "mature" segment—listeners who are 60+ years old. Assuming a uniform distribution of people across ages 0-80 (approximate average life expectancy), that places 1 million people in this segment. This is probably a good target for classical music, since these people probably have had greater exposure to classical music during their lifetimes, and are probably more receptive to classical music than other types.

Next, let's take the "youth" segment for children 10 and under. This segment, using the same logic, is about 500,000 people. This is a terrible segment for our station.

Next, let's talk about a "professional" segment. These are people in white-collar jobs, with higher education and income, and also some exposure to classical music. Another good segment for our station, I'll estimate their number at about 1 million.

Last, the "other" segment consists of everyone else in the Philly listening audience, most of whom are not classical music fans. This last segment, numbering the remaining 1.5 million, has a wide range of individual tastes, and thus may be a fair segment for us.

Assuming 100% of the mature segment, 50% of the professional segment, 33% of the other segment, and 0% of the youth segment are potential listeners, this makes a maximum audience of 2 million people.

Good, but why do you assume that the professional segment is more likely to listen to classical music than the "other" segment?

Professional workers tend to have higher than average education and income levels, thus allowing them broader exposure to music beyond the pop music our other segment receives. Furthermore, much interest in classical music may be due to having music lessons as a child, which are expensive and predominantly available to only higher income, professional consumers.

OK. Let's talk about the customers.

Given that we have a potential audience of 2 million listeners, I think we can convince advertisers that we have a compelling targeting potential for their brands, products, and services. This is particularly true since there is no real competition for us in classical music radio.

Are advertisers the only source of revenue?

Not really. We can always try to get donations from consumers and corporations as a sort of "arts" sponsorship, as public radio and television do frequently.

Great. For now, let's concentrate on advertisers. How much money do you think we can raise using advertisements for revenue?

Advertisers are willing to pay a higher CPM for specific, targeted opportunities that reach consumers who are likely to be interested in their brands. From my own background, I'm familiar with CPM rates for Web banner ads, which range from \$20 to \$75 CPM depending on how focused your Web page is. Since we offer a reasonably specific customer segment base, I'll assume we can charge \$50 CPM, which is toward the high end, but not as high as a very specific Web site.

I'll assume that we don't get the entire potential audience of 2 million, but only one-twentieth of that. With an audience of 100,000, that yields $\$50 * 100,000 = \$5,000$ per ad.

How do you feel about that figure?

It sounds way too high to me.

You're right. Why do you think it's too high?

Since radio is a mass broadcast medium, there's really no way to tell if anyone is listening or if the right people are listening. With a Web page, you can definitely keep track of traffic and ensure you are getting your money's worth in views from consumers if nothing else.

Good. Let's use a figure of about 1% of what you had calculated.

If ads cost \$50 for advertisers, we then need to determine how many ads we can run per day. Assuming one-tenth of airplay time is ads, that makes about 2.5 hours per day of ads. Let's further assume the average ad is 30 seconds long. This yields $\$50 \text{ per ad} * 2 \text{ ads per minute} * 60 \text{ minutes per hour} * 2.5 \text{ hours per day} = \$15,000 \text{ per}$

day in advertising revenue. Since you can sell ads every day, \$15,000 times 365 days per year = \$5,475,000 in potential advertising revenue per year.

Does this sound like an attractive opportunity to you?

We have to look at the costs of establishing and running the business first. Since I don't have any experience in radio or classical music, I need to hire a station manager who can run the daily operations. Let's assume a salary plus benefits package of \$100,000 annually is required. Next, let's assume a rotation of 10 DJ's to play different programs and provide variety, at a package worth \$50,000 each per year. We'll also need some MBAs to do marketing to get advertisers and drum up publicity, at a package of \$75,000 per year. Finally, let's assume a staff of 10 people for various support and service functions, each at a cost of \$30,000 per year. This makes total staff costs \$1,200,000.

Next, we'll have to get the equipment lined up. We can probably lease a tower instead of buying one, so I'll assume a cost of about \$15,000 per month for \$180,000 per year. Next, we'll have to lease the land and building that we'll place the tower on. We won't have to set up directly in downtown Philly, so we can probably get a small building lease for about \$5,000 per month, or \$60,000 per year for the real estate. Next, we'll need to lease the radio equipment—receivers, amplifiers, etc. This will be a bit more expensive than a standard home system, so let's assume another \$5,000 per month for \$60,000 per year. Finally, let's go and buy the CD library we'll need—assume 1,000 CDs at \$10 each for \$10,000. This brings the facilities costs to \$310,000.

Last, let's make an initial advertising blitz for \$50,000, and then spend \$2,000 on advertising per month after that. This makes the first year's marketing budget \$74,000. Total costs of running the station are thus \$1,200,000 + \$310,000 + \$74,000 = \$1,584,000.

Does this sound like a good opportunity to you? Should we do this?

With an upside of nearly \$5.5 million per year for an annual cost of only \$1.5 million? Yeah, I think this is a great idea. We should definitely do this!

So tell me why you want to be a consultant?

Chemical Manufacturer’s Portfolio of Business

Our client is a specialty chemical manufacturer. More specifically, this is a \$50 million division within a multi-billion dollar conglomerate. Our client runs one chemical plant, with common facilities in terms of vats, mixers, etc., to produce chemicals for four major markets. First is textiles, which are chemicals that are dumped into large vats with cloth designed to leech out unwanted minerals from cloth. Second is fibers, which assist in the extension and spinning of fibers and add lubricity. Third is metal working, which again creates chemical additive fluids designed to soften metals for shaping. Fourth is oil fields, which has chemical products that also add lubricity to the oil wells and drilling equipment.

Our client is currently losing \$8 million per year. We have been hired to determine whether or not the business can be turned around, and help the client determine how to do it if possible.

I’d like to examine this problem using a matrix of different criteria to compare each of our products in these four different markets.

	Market size (US/Total)	Growth	Capacity	Profitability	Competition	Customer Opinion
Textiles						
Fibers						
Metal						
Oil fields						

I’d like to start by learning more about the size of these various markets, in terms of total sales for the industry and also the market share our client commands.

In textiles, the total market is well over \$500 million annually, and our client sells about \$15 million here. In fibers, our client sells about \$10 million in a total market size of \$300 million. In metal, our client sells about \$15 million in a market of about \$300 million. In oil, our client sells about \$10 million in a \$90 million market.

Are the growth rates in these markets significantly different?

No. Each market tends to grow or shrink with GNP.

Is capacity an issue for us, if we were to increase production of any product line or eliminate a product line? Is the industry overcapacity? Is our production technology up-to-date?

There really aren’t any productivity or capacity problems for us, since we can use the same facilities to produce most of our products. Each product is basically mixed in 10,000 gallon vats. If we do run out of capacity due to huge surges in demand, we’re usually able to outsource production to third-party manufacturers at a reasonable price.

That suggests that we shouldn't look at making large investments in PP&E. Now, I'd like to know more about the competition in each of these markets.

Textiles is a highly fragmented business, with hundreds of companies making hundreds of products for hundreds of customers, and thus it tends to be a hustle business. Fibers has five major players including us, and eight large customers. Metal has about twenty large firms involved. Oil is much like fibers, with very few significant players.

Next, I'd like to know how customers feel about our client's products as compared to the rest of the industry.

In textiles, our client seems to be at about parity with the competition. It's hard to tell in the fibers market, since about half of our sales go to an internal client in another division of the company. Our metal products are very well received, and customers tell us that they'd like to see our sales force more often. Also, our oil products are the top of the line in the industry, but they are very expensive. Our product here is like a "silver bullet" in the industry—it works extremely well, but it's so expensive that you only purchase it when you absolutely need it.

Next, I'd like to know about how profitable each of these product lines is for our client.

Metal is profitable, oil is about break-even. Textiles is somewhere between break-even and slightly negative, and fibers is very negative.

I'd like to start my further analysis in the fibers market. Why are we unprofitable here?

Our facilities don't seem to be able to produce the type of reactions needed to continuously generate a large volume of the fibers chemicals effectively. Our yields are poor when compared to the rest of the industry.

Is there any chance our parent firm can purchase this product from one of the other producers, given that we might be able to put the capacity to more profitable use in a different product?

Sure. Our money is as good as anyone else's.

My first recommendation is to discontinue producing the fibers product for our internal client, and have them purchase the product on the market. Now, I'd like to look more into the metals product. What sort of customers are purchasing this product, and why is our product so well received?

Customers are large industrial clients who use this chemical as an additive to metal working. For us, the production cycle is easy and logistics are no problem in shipping the product through our established sales network. This has made the product profitable for us. Customers have also responded well to our service, which is regarded as superior to our competitors.

How is our service superior?

We handle delivery, production planning, and handling charges for our large customers. We have also been very reliable in on-time delivery.

How important, on a cost basis, is our product to our clients? In other words, is our product a large percentage of their materials costs or a small percentage.

Very small.

In that case, I'd like to explore charging more to clients for our product in return for even better service. Our goal is to capture higher profits through improved service by ensuring that the management of these clients does not ever have to worry about the reliability or quality of our product. By minimizing the hassle our clients have by purchasing from us instead of competitors, we should be able to leverage our superior service into increased profits. Next, I'd like to look more closely at the oil product. Why is our product so much more expensive than competitors?

We are able to command a disproportionately large market share in oil because we have a proprietary technology that greatly enhances the operations of drilling equipment for exploration companies. We really have the only product on the market that can serve the needs of these customers when their drilling equipment fails.

Since we have an effective monopoly on this type of product, customers will have to buy from us whenever they need it and won't be able to go to competitors. Since customers don't purchase this product unless they absolutely need it now, I recommend we look closely at the value our product provides to customers and possibly raise prices to capture more consumer surplus. Of course, if a competitor is able to duplicate our product, we will have to lower prices as a result, but for now, we should be able to raise price. Finally, I'd like to learn more about the textile market.

Textiles has hundreds of producers, and customers vary from huge textile companies, to small die-tool houses, down to "mom and pop" establishments who require very little product on a regular basis. Many different segments of customers exist.

Given that this is such a huge market, I recommend our client look for a way to differentiate and provide a superior value proposition to a particular segment. The best way to do this would be to determine which segments our client can actually serve well first. For example, we may never have enough capacity to serve the huge customers, but perhaps we can allocate all of our capacity to a few mid-sized firms which provide us with profitable sales. Then, we should rationalize all of our efforts to producing for a few, profitable customers rather than selling product to the market at large.

Great job. Could you summarize your recommendations for me?

1. Exit the fibers market.
2. Emphasize superior service to customers to charge higher prices in metals.
3. Raise the price in oil in order to capture monopoly profits.
4. Establish a customer focus and segment the textile market to focus on a few highly profitable customers.

Scale of Justice

Imagine you have a scale of justice—one of those scales with two sides that weigh against each other. You also have 8 coins. One of those coins is just slightly heavier than the others. The difference is so small that you can't see it or feel it, but it can be measured. Using the scale, what is the minimum number of weighings you would have to do in order to be sure you found the heavier coin?

Answer: 2—By weighing coins in groups of 3 coins, 3 coins and 2 coins.

Earnings to Capital

Say you have the following information:

$$\frac{\text{Price}}{\text{Earnings}} = 10$$

$$\frac{\text{Capital}}{\text{Assets}} = .10$$

$$\frac{\text{Earnings}}{\text{Assets}} = 1.5\%$$

You can not obtain additional information. Using only this information, how can you find Earnings to Capital and what is it?

Solution:

$$\frac{\text{Earnings}}{\text{Capital}} = \frac{\text{Earnings}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Capital}} = .015 \times 1 / .10 = 15\%$$

Assets cancel out in the equation.

Home-builder Entering New Business

Your client is a leading manufacturer of home building supplies (i.e. sheet-rock, lumber, etc.), they have excess capacity at their plants and warehouses and are looking to utilize this capacity. They are thinking about entering the door making business. First, estimate the number of new doors installed in new houses and apartments each year, and second, do you think this is a good business for the client?

Interviewer's Heads-up

This is an estimation case with some strategy thrown in. The dialog is shown to provide you with one path.
--

Case Discussion

There are 250,000,000 people in the US, 60% or 150,000,000 live in houses and 40% or 100,000,000 live in apartments. The average house has 10 doors and the average apartment has 5 doors. People move into new houses every 10 years and apartments every 5 years. There are an average of 5 people in each house and apartment.

House doors: $150,000,000 / 5 = 30,000,000$ houses. 10% , or 3,000,000 new houses built each year. 10 doors in each new house for 30,000,000 house doors.

Apartments $100,000,000 / 5 = 20,000,000$ apartments. 20%, or 4,000,000 new apartments constructed each year. 5 doors in each apartment or 20,000,000 apartment doors.

Total: $30,000,000 + 20,000,000 = 50,000,000$ new doors each year.

Tell me about the current providers of new doors.

The market is composed entirely of mom and pop door makers who supply to builders within their geographic location.

Is there anyway our client can provide better service?

You tell me!

Let us begin with costs. Can the client produce the doors more effectively? Does he have any cost advantage (i.e. economies of scale)?

Maybe, but we don't really think that is relevant. The client just wants to know if he should utilize excess capacity and enter the market.

Let us then look closer at the market. How do the current mom and pop outfits serve the market?

They get an order for doors, for which there are approximately 10 different styles, and they generally deliver the finished products within two to three weeks.

Could our client deliver a more differentiated product in less time?

Our client has six warehouses and production facilities across the US and he believes he can deliver an order of doors anywhere in the US within two days.

Time is one way in which our client can differentiate his business, can he also produce a differentiated product?

The client can deliver whatever the customer wants.

If this is the case, then our client can differentiate his business. The question now arises as to whether this industry needs this type of differentiation, or “consolidation”, and whether it is sustainable in the long run. I’ll start by asking if anyone has tried this before?

Not that we know of, but I am interested in your thinking? What are you trying to discover?

If there is a reason that this industry is so fragmented, and if there is a reason that 10 styles of doors delivered within two - three weeks has proven a successful business model.

We believe that is correct! It the business exists in its’ current form because that is what the market demands. There is no great need for more than 10 different styles of doors, in fact, builders prefer fewer styles because it makes their plans more uniform. As far time, builders know well in advance when they need doors, so they plan their orders accordingly. Quick turn around is of no great benefit to them. So what is your advice to the client?

I’ll tell him to stay out of this market. It is fragmented for a reason, he can bring no great competency to the market through which he will derive competitive advantage and his capacity could probably utilized in a more fruitful manner.

Asian Gas Retail Expansion

I have been working on helping a mid-size U.S. gas retailer who is considering entering the Asian retail gas marketplace. I am looking for breadth here, and then we'll get to the numbers. What issues should they consider before they enter the market?

Interviewer's Heads-Up

This case consists of two parts. First, have the candidate consider as many business issues and concerns as they can identify. You should press their assertions and test them for their logic and relevance. Then have them analyze the following graph.

Case Discussion

Possible business issues could include but are not limited to:

CUSTOMERS

Segments
Profit of each
Transaction Behavior

COMPETITORS

Local vs. international
Capabilities of each firm
Position of each firm

GOVERNMENT POLICY

Monetary policy
Investment policy
Taxes
Oil import regulations

Costs

Fixed vs. variable

Distribution Capabilities

Shipping/pipelines
Import controls

Measurements

Profit
ROI
Free Cash Flow

Interviewer's Heads-Up

Now show the candidate the chart on the next page. Ask them the following questions.

On a first cut analysis, what does the graph tell you?

Hmmm. It seems to show that as per capita GDP rises so does gas consumption.

Right. What else does it tell you?

It shows that China has a lot more people than Hong Kong so it might be a more attractive market. However, we would have to run the actual number's to make sure.

Interviewer's Heads-Up

You should have the candidate compare the countries on the graph to check their quantitative skills. Help them into the ballpark with their estimates of the countries by using the data below.

Goizueta Consulting Association

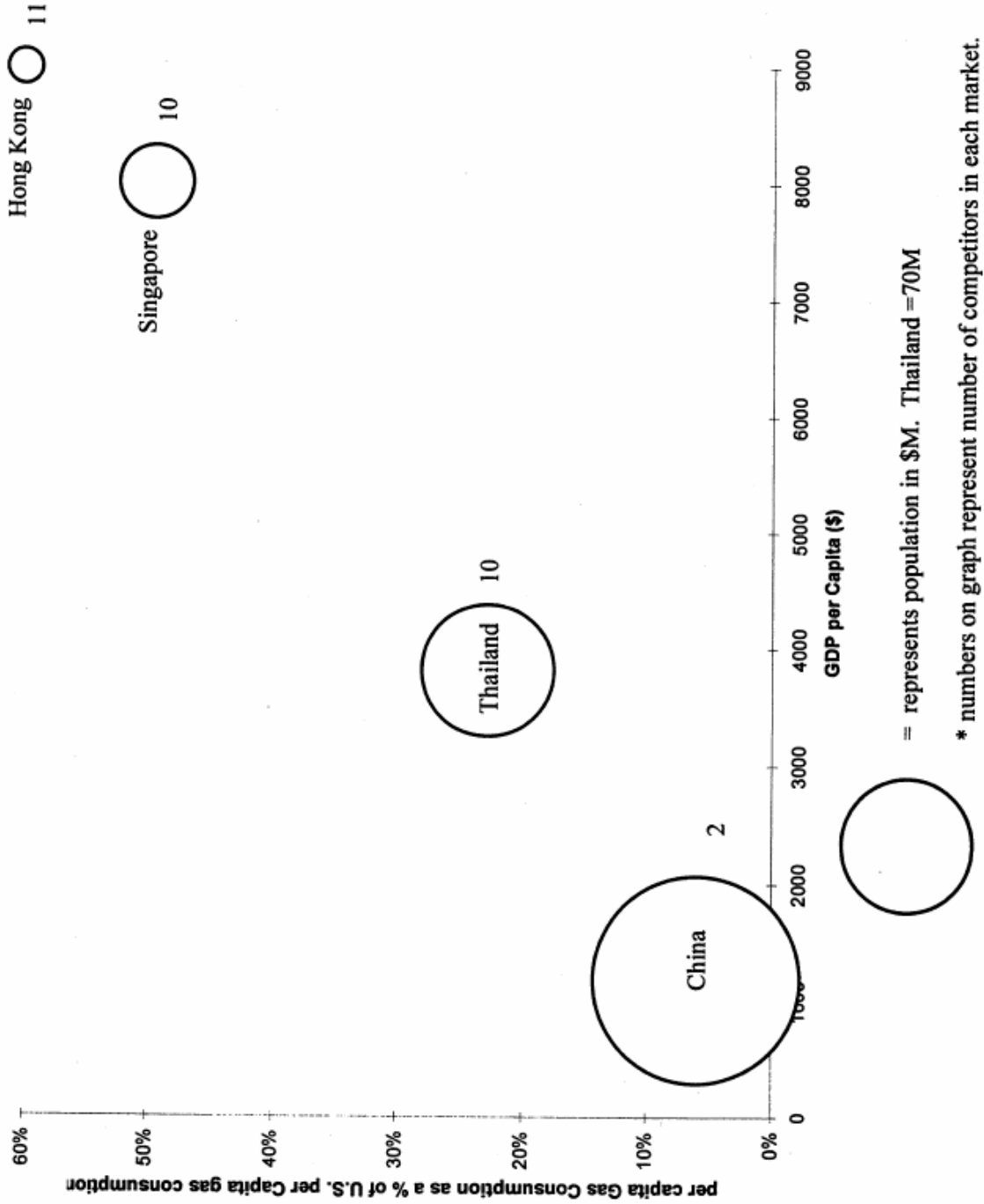
Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

Country	Per Capita GDP	% US per capita gas consumption	Population	Relative Size
China	1000	5%	1B	5
Thailand	4000	25%	40M	1
Singapore	9000	50%	20M	1
Hong Kong	10000	65%	10M	.65

Note: relative size = % U.S. per capita gas consumption X population

Once the candidate has done the math you can ask them:

- How many times bigger is the relative market size of China than Hong Kong? (approx. 100)
- Which market is the most attractive? (Don't forget the competitors!!)
- Which market would you recommend they invest in? Why?



Moolahian Smart Cards

Currently the Republic of Moolah tax code allows for Moolahian employers to pay their employees in tax-free food tickets. These tickets comprise only a fraction of the total compensation employees receive, yet they have created a sizable food ticket industry. Because all employees receive these tickets, almost all restaurants accept them as cash

The current system works as follows. Employers contract with ticket producers to produce the tickets and track the food ticket compensation of each employee. The ticket producers deliver these tickets to the employers who in turn enclose the food tickets with weekly paychecks. The employees then exchange these tickets at restaurants for food. The tickets have "same as cash value" at restaurants.

CARDCO, the largest player ticket producer in the Republic is thinking of replacing these paper based tickets with SmartCards. Under this system employees would be issued a single SmartCard that they could charge once a week at a Card Charger (like an ATM) and then swipe their cards at a Card Reader at participating restaurants.

Tell me, what issues should CARDCO think about in regards to the decision to switch to SmartCards?

Interviewer Heads-Up

The key issue here is to weigh the costs of such a move with the benefits. Though The candidate should identify key issues like:

- customer reactions,
- competitor reactions,
- governmental regulation changes,
- and technology concerns.

The key issue remains: do the economic benefits outweigh the costs.

Let's see. It would seem to me that we should begin by comparing the economic benefits of installing the new SmartCard with the systems costs. First, I would like to determine how much the system will cost to install. What investments will SmartCard require?

Obviously the system requires the chargers and the readers. Is there anything else you could think of?

Well there are the SmartCards themselves.

Yes, and...?

Perhaps the IT systems to track all of the data on the SmartCards?

Right.

Let's see what investments we have identified so far: Chargers, Readers, Cards IT systems. What are the costs for each one?

Let's say the cards cost \$15M and the IT systems cost \$20M.

How about the card readers and chargers. How many of those would we need?

CARDCO believes it will have to install 100,000 card readers and there are 150,000 restaurants that currently accept food tickets. Both the readers and chargers cost \$500 each to install.

OK, now we have \$20 million for IT systems + \$15M for cards plus \$75M for the readers (\$500 per reader x 150,000 restaurants) + \$50M for chargers (\$500 x 100,000 chargers) = \$160 million total.

Great now what are the benefits of the system.

It appears to me that the benefits would be the cost savings each player in the value chain obtains from the system. Let's start with CARDCO itself. How much would they save?

CARDCO would save \$10M on the printing and distribution costs in currently incurs. What about the employers how much would they save?

I think they would be negligible since CARDCO does all of the distribution. Also the employees wouldn't gain any actionable cost savings. That leaves' the restaurants. They must have a cost for each ticket transaction.

You're right. In fact it currently costs each restaurant \$.30 per transaction and each restaurant does 20 transactions a day.

That mean's each restaurant incurs \$1,500 per year in transaction costs. (\$.3 x 20 X 250 days per year). How much would the restaurants save?

CARDCO expects the restaurants to reduce their transaction costs by 2/3's.

That mean's each restaurant would incur only \$500 per year. Thus the total transaction cost savings is \$150M (\$1500-\$500 =\$1000 X 150,000 restaurants). That makes the total cost savings of \$160M (\$150M transaction costs + \$10M printing). This equals the investments so its only breaks-even on an economic basis.

That's right. How else could CARDCO make the this a positive investment?

Well, if CARDCO is one of many ticket producers, perhaps they could license their system to other ticket producers who could then supply additional customers to increase the network's utilization. Or they could simple acquire a competitor.

Dallas Symphony Orchestra

The Dallas Symphony Orchestra is currently exploring the possibilities of increasing their ticket revenues. So far, they have relied heavily upon corporate donations and government grants, and they would like to increase the proportion of revenues obtained from ticket sales. How would you do it?

Interviewer's Heads-Up

This is a mini-case, with the emphasis being on whether the candidate is able to focus in quickly on the single main point of the case: supply / demand curve. If the candidate does not immediately jump to it, ask him/ her to draw one after some quick discussion.

I would start by looking at different sources of revenues. Since you have outlined the problem as one of revenues alone, I am proposing not to get into the costs side of the equation until later.

Good. Explain what you will look at.

Well, the way I look at it, revenues are a function of price and the volume of the tickets sold. We can look at either, or both of these in turn.

There is not much to be done with the volume. The tickets are always sold out.

In that case, let us focus on the prices. How are the tickets priced now?

Interviewer's Heads-Up

It was clear that the case giver wanted this to be a price driven case. He did not want to discuss other ideas such as merchandising, CD's, tours, etc. as a source of revenue, as can be evidenced below:

Yes, let's examine the prices. Draw me a demand curve for the tickets.

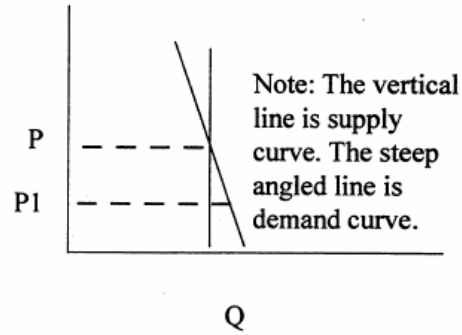
(Thinking aloud is OK at this point): Well, I think, without having done a careful study of the customer segmentation, my first guess is that the customers for a symphony are not very price sensitive, which means that there is probably plenty of room for price movement with little effect on quantity. Right?

Right. What does it mean for the demand curve itself?

Kind of steep (See figure).

Good. Now, what about the supply curve?

I don't think the supply will vary at all. No matter what the price is, there are x number of seats available at any given time.



Very good. Let's look at the supply demand curve that you have drawn now. What if I tell you that they are priced at P_1 now?

Well, since the equilibrium price seems to be at P, I see there is definitely some scope for price increase.

Good. There were other aspects of this case, but let's stop here for now. How do you think you did?

Interviewer's Heads-Up

Obviously, this is a simple supply demand case, and you can lengthen it if you wish. Once the candidate correctly identifies the curve, you can stop the case.

Oil Field

You have been approached by a client who has an oil field, and he does not know what to do with it. The price of the oil is at present \$16 per barrel, and it has been that way for a while. It costs \$18 per barrel to lift the oil. A major oil company has just bid on his plot of land for a 5 year oil lease. What should he do?

Interviewer's Heads-Up

This is a mini-case that tests the candidate's understanding of simple option pricing theory. Since candidates are expected to have taken a fundamental corporate finance course, this question is fair game. Feel free to let the candidate wander all over the map, but he/she must arrive at the following conclusion: one does not price the oil reserve purely based on the existing price to lift and refine the oil. Rather, you pay to have the *option* to lift the oil. This then gets into option pricing theory, Black-Scholes, etc. The underlying asset in this case is the oil itself, and the volatility component of the Black-Scholes model comes from the volatility of the oil prices. The strike price of the option is the cost of lifting the oil from the ground.

Venture Capitalist Entering Oil Field Service Industry

Imagine I am a venture capitalist. I come to you with the following situation: I have recently been approached with a proposal to invest in an oil field services company. This company provides personnel to major oil companies that explore and produce oil. Apparently, this company is up for sale for about 1 million dollars. What are the issues you would look at before making a recommendation to me? (Note: I don't know any thing about the oil industry).

Interviewer's Heads-Up

This case had no "right" answer. The interviewer was looking to see if the candidate explored all the relevant issues and asked the right questions. The interviewer also wanted the candidate to "role play". The following responses were by the candidate who faced the case. Feel free to introduce as many new issues into this case as you can.

I would like to start this case by finding out what kind of returns are you, Mr. VC, is expecting? Typically, VC's look for upwards of 25 to 30% returns to cover their losses in other risky investments.

Let's say I am interested in a 25% investment in this case as well.

To determine if your \$1 million is going to return 25%, I would like to examine the cash flows that would be generated by such an investment. First of all, let's examine the industry you are about to make your investment in. Being in the oil & gas industry, the success of your venture is highly dependent upon the success of your clients, namely the oil explorers and producers; their fortune, in turn, depends upon the price of oil which is not in their control. The price of oil, as you know, is controlled to a big extent by the OPEC cartel. Therefore, your revenues are not very well predictable.

Good. What about the costs?

Well, as I see it, your costs are mainly the cost of manpower that you supply to the producers. I assume that the people you hire are temporary, so you can hire and fire them depending on your demand...

Yes, I can.

In that case, your profits are not probably as volatile as your revenues. But they are still not very predictable. Now, what about synergies? In other words, is there any special know-how that you can bring to the table that will reduce the costs of the venture post-acquisition?

No. Remember, I have no expertise in this industry.

That's an interesting point. Not only do you not have any expertise in this industry, you have no special means to reduce the costs! Further, we should not lose sight of your objective: to make returns of 25% or more. With the information you have

provided me so far, I am not sure if those kind of returns can be achieved in this type of industry. But for the sake of completion, let's look at other aspects of this proposal. Do you know who your competitors are?

I don't, but I can find out.

Good. I would look at their historical performance to get a measure of the profitability of this industry. It would also give you a measure of how fragmented the industry is, the amount of rivalry that exists within this industry, etc. I would also look at any regulatory issues, as well as union issues. If this industry is highly unionized, you may not be able to achieve man power reduction at will.

Further, I would look at the availability of man power. In other words, the skill set required by this company may be quite specialized. In that case, good trained man power may become a scare and precious commodity, driving up your costs.

By looking at all issues, you may be able to confirm if you can realize the kind of returns you expect from your other ventures. On the face of it, I don't think it is a good buy. You may be able to achieve better returns by investing your \$1 million in more attractive ventures where you have some knowledge (after my consulting fees, of course).

Good. This is the recommendation we ended up making to this gentleman who came to us. His lack of competence in the industry was definitely a big issue in making the recommendation. Now, on to the next case...

Capital Intensive Investments

Our client works in the oil industry. They make what is known as “well completion equipment”. These products are fairly generic, and are quite capital intensive. The client has been making profits, by the share price has been tanking. I want you to examine the case from two angles: one, is it possible to make operating profits and still see your share prices tumble? Two, what would you suggest they do?

Interviewer’s Heads-Up

This case tests a very fundamental concept: the returns from the investment should exceed the company’s cost of capital. In this situation, the interviewer was looking for a specific answer, not just the issues. What has been presented below is only the nutshell version. Feel free to engage the candidate in discussions before leading him/her to the correct answer.

Let us take your first issue first. It is very possible that share prices can go down even if the company is making operating profits. If the return on the company’s investments does not exceed the cost of capital, the company does not make any “economic profit”. In other words, the company is not probably making the kind of returns expected by the shareholders.

Bingo. Now, tell me how this situation can apply to this particular company.

Well, you mentioned that this company’s investments in its equipment are capital intensive. This probably means that the fixed costs are high compared to the variable costs. I would therefore look at some capacity issues. Are they running up-to capacity?

Well, the problem is, they have their operations in different locations. Each place invests in additional capacity as need arises.

Does this mean that there are situations when one of the locations is in need of equipment, it is possible that the other location may actually have it available?

Very much so. When one location needs equipment, they just go buy it. Since demand has been robust lately, the company has made significant investments lately.

That probably explains the stock price. The company has been making capital intensive investments, probably creating excessive capacity overall. This creates undue stress on cash flow to shareholders, who then dump the stock. A possible solution is for the managers of different locations to communicate more freely with each other. One may want to look at how the managers are incentivized. It is probable that the managers have no incentives to borrow equipment from different locations.

Correct. Our findings were on similar lines (followed by a 5 minute boring description of the actual recommendation; try not to yawn!)

The Tightest Ship in the Shipping Business

A container shipping company has hired you as their consultant. The board of directors wants you to help the firm raise its return on equity (ROE). For the past 10 years the firm has earned an average a 10% ROE, which the board considers to be too low. They want the firm to earn a 15% ROE. How would you help them?

But, before you answer, I can provide you with some background information. The firm provides container shipping services. Container shipping involves the packing of cargo into a trailer-like box that is then transported on ships, trucks, and rail lines. The firm’s primary business focus is to deliver cargo between the US and Pacific Rim.

Interviewer Head’s-Up

This is a fact finding case. The challenge is for the candidate to pry data from you one small piece at a time. Once they have collected enough data, the answer is self-evident. Make the interviewee suffer by providing only the smallest amount of help with each question. Use the hints below to guide you.

Case Hints to be Provided

You may give the following hints as the candidate struggles with this case:

1. The firm generates \$2 billion annual revenue. That is split roughly 1/3 land shipments (i.e. trucks) and 2/3 sea shipments (i.e. boats).
2. The shipping industry suffers from substantial over capacity.
3. The firm currently experiences 5% net income margins.
4. The firm’s shipping revenues have remained constant for the past 10 years. All of boats run approximately 70% full.
5. The firm’s cost structure for both shipping and trucking is:

Fixed Costs (60% of Total Costs)	Variable Costs (40% of total costs)
-Depreciation of Equipment=30%	-Fuel = 50%
-Depreciation of Other Equipment= 30%	-Maintenance =50%
-Overhead =40%	

6. Asian shipping firms are bringing more ships on-line which will increase shipping capacity 20% over the next five years.

Case Solution

With all of the hints exposed, the problem is quickly solvable. With excess shipping capacity in the industry, and 36% of the firm’s total costs related to the firm’s asset size (depreciation), the firm should consider selling its ships to increase its utilization and reduce its expense levels.

Oil Lambada

A medium size vertically integrated U.S. oil company wants to expand into the growing markets of Latin America. This firm not only drills and refines gas, but it owns a set of retail gas stations. The firm is interested in expanding its retail chain into Latin America. How should the firm analyze this problem?

Interviewer Head's-Up

This case is a high level strategy case. The candidate should detail an analytic framework, which you should test to see if it is logical. Only few facts are provided in the case. These should be given when the candidate asks for the information or when the interview discussion should incorporate them.

Case Discussion Points

There are many way to approach this case. Basically the candidate should touch upon the following analytic areas.

Market Attractiveness. Is the Latin American region an attractive market to enter? Is it a high growth market? Are consumer spending trends favorable. **YES**

Competitor Presence. What is the competitor landscape like? Are their many or few competitors? What would be our positioning within the markets we enter? Is this defensible? **There are a few competitors and our marketing strategy in the U.S. would appear to work quite well in Latin America.**

Firm Capabilities. Does the firm have the managerial resources to enter the markets? Has it invested abroad before? Can the firm supply its retail stores with existing refining capabilities? **The firm's management has never invested abroad before. The firm cannot completely supply both the Latin American and North American markets with its existing refineries.**

Entry Mode. Does the firm want to enter all of the markets in Latin America or just some? How fast do they want to enter? How much capital can be made available to fund the required investments? **The firm wants to enter the markets quickly, and it wants to conduct a Pan-Latin American strategy. However, capital investment funds are limited.**

Case Solution

There are basically three ways in which an oil firm can enter a foreign market: 1) Direct investment, 2) Joint Venture, 3) Acquisition. Given the points raised above, especially the facts that the firm is resource constrained, a Joint Venture is probably the best method. However, each of the above mentioned entry modes entail different levels of risks and rewards which should be noted. Also, one should question why the firm wants to enter the Latin American market in the first place.

Hotel Quickie

Marriott wants to compete directly with Ritz Carlton. What should they do?

Interviewer's Heads-Up

<p>This is a quick case you can throw in the middle of a fit interview. The candidate should brainstorm as many possible actions as possible, and what Marriott needs to change in its operations.</p>
--

Case Solution

As this is a pure hypothetical case, we'll give you the answer. Essentially, Marriott must upgrade its facilities and staff service levels to compete with Ritz. Rooms would have to be refurbished, lobbies would need redecorating, and restaurants would need to be improved.

Additionally, the service levels would have to be improved. Staff would require training and compensation schemes would have to be changed as well.

Consulting Firm Dashboard

You are the CEO of this consulting firm. What operating metrics would you want to look at to make sure you were doing a good job?

Interviewer's Heads-Up

This is another quickie to throw into the middle of an interview. The interviewee should present a framework and discuss their reasons for selecting the components.

Case Solution

As a professional services firm, a consulting firm must satisfy two key constituencies: its customers and employees. Additionally, it faces strong competition from similar firms, so the metrics the firm should look at could be broadly assigned to these three areas. Some possibilities include:

Customer Focused

Customer Retention
Increased Profits
New Customers

Competitor Focused

Competitive Bids Won
Growth

Employee Focused

Employee Retention
Employee hire rate

Steel Threat

Client is a rebar steel manufacturer with one plant. The plant is fairly old and is marginally successful. A competitor has built a new plant 300 miles away. What is the competitive threat?

Interviewer's Heads-Up

This is a strategy case with some light math. Have the candidate do a few calculations to help drive to the answer. Also, at the end, the candidate should brainstorm a few strategic options that the steel firm should explore. An important question they should consider is why our steel firm exists at all.

Case Discussion

A logical solution to this case to look at the firm's cost structure, the competitor itself, and the customers / market place. The information you can provide is shown below.

Competitor Information

- The new competitor also manufactures rebar steel.
- The firm's plant cost \$200 M to manufacture and is 50% larger than the client's steel mill.
- The competitor enjoys a 10% cost advantage over our steel costs, which is passed onto customers.
- The firm enjoys a 50% labor cost advantage relative to our steel costs.

Customer Information

- Currently we have one customer, located 300 miles away from us.
- The customer buys 400,000 tons of steel from us per year.
- They are satisfied with our quality and price.
- We represent approximately 45% of their total annual steel purchases.

Company Information

- Our capacity is 500,000 tons per year
- We charge \$300 price per ton
- We currently run at 80% capacity, and have run at this level for years.
- The firm enjoys a 20% net margin.
- The firm's cost structure is:
 - 20% fixed costs
 - 10% incidental expenses
 - 30% labor costs
 - 30% raw materials
 - 5% inventory expenses
 - 5% overhead

Case Solution

A quick analysis shows that that the firm is extremely vulnerable. We sell our steel for \$300 per ton, while the competitor sells their steel for \$270. If we assume we have equal gross margins, then our cost per ton is \$240 (80% of revenue) while the competitor's costs are \$216 per ton (90% of our costs).

Goizueta Consulting Association

Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta GA 30322

Since we seem to be at a significant labor cost disadvantage (50% higher), perhaps the firm could reduce its labor costs per ton.

We currently incur \$72 per ton in labor costs (30% x \$240 total cost / ton). If we could achieve the competitor's labor cost levels, \$36 per ton, then our total cost per ton would be \$204 per ton, less than our competitors \$216.

However, steel is a competitive industry, and it would seem unlikely that we could obtain such dramatic cost savings. Thus, we should also consider other options.

The firm should perhaps find new customers, or enter into new steel markets, the high quality segment or specialty coated steel.

Hardware and More

This is a true story that happened about 10 years ago, before anyone really had heard of HomeDepot. So for now pretend you don't know anything about HomeDepot. A regional hardware store wanted us to improve its profitability. Additionally, the CEO had heard something about a new store called HomeDepot that had entered its market. He wanted us to also determine what kind of a threat HomeDepot would pose.

Interviewer Heads-Up

This is a difficult case. The idea is to stump the candidate to see if they can figure out what is really going on. Most interviewees will look at the firm's cost structures, which look identical at first. However, only when they consider the price differences does the answer become clear.

Case Discussion

It is unclear to the candidate whether the profitability issues are related to the threat of HomeDepot. Most of the discussion will surround understanding the market environment, customers, and the cost structures of both firms.

Market Environment / Firm Revenues

- The market is growing at 2% per year and has done so for many years.
- The client's revenues have been flat for the past several years.

Client Firm Description

- The firm's stores are 2/3's the size of HomeDepot's Stores
- The stores are located in the southeast, and mostly on the mainstreet of small cities
- The store's strategy has been to stock the many hardware needs of its clients. This has traditionally been small items like hammers, screws, tape measures, etc.
- The average transaction in the stores is \$15.

Home Depot Description

- HomeDepot has only opened one store in our region.
- HomeDepot stores are quite large, in fact 50% larger than our stores.
- HomeDepot stocks many, many items, but they seem to stock much more home improvement items like sinks, bathtubs, cabinets, etc.
- The average transaction at the HomeDepot Store is \$60

Interviewer's Tip

The key to the case is that the cost structures look the same, but each firm has different prices. Let the candidate struggle to determine this. Don't provide any assistance.

Cost Structure

- The cost structures of the firm's as a percent of sales are identical:

	Client Firm	Home Depot
COGS	80%	80%
Overhead	10%	10%
<u>Sales & Marketing</u>	<u>5%</u>	<u>5%</u>
Profit Margin	5%	5%

However, HomeDepot's prices are 70% of ours. If we adjust the data for this fact the cost structures look like this as a percent of our sales are:

	Client Firm	Home Depot
COGS	80%	56%
Overhead	10%	7%
<u>Sales & Marketing</u>	<u>5%</u>	<u>3.5%</u>
Profit Margin	5%	33.5%

Since HomeDepot's prices are 70% of ours, each of their cost components must also be 70% of ours, thus you multiply each cost percentage by 70%.

Additional Cases (No Solution Provided)

- How much salt is in the ocean?
- How many marriages occur each year in Japan? In New York?
- How many light posts are there in Stockholm?
- How many golf balls are in flight over the golf courses of the U.S. at any one time?
- How much astroturf covers the major league baseball stadiums in the U.S.?
- How many ping pong balls would fill a Yugo?
- What is the surface area of UPS' s truck fleet?
- How many pounds of rubber do the tires of British Airway's airplane fleet weigh?
- Why did Dominoe's s stop its "free pizza if we're late guarantee"?
- Should a steel company sell over the internet?
- If you were made the Dean of Wharton, what would you change?
- Why do clients hire consultants?
- If you could start any company, what would it be?
- What is the worst corporate strategy you have seen? Why was it so bad?
- Should a bank launch an internet brokerage?
- Why do you like our firm?
- There is a shining golf star in Stanford by the name of Tiger Woods. You are with Nike, and you want to make sure he signs up huge contract with you when he graduates and becomes a pro. What should you do?
- You are traveling in a plane next to a guy who confides in you that he has just invented this magic potion; and ounce of it, when mixed with an ounce of gasoline, would make gasoline twice as efficient. He has been invited by an oil major for a meeting. What are the factors he should consider on his way to the meeting?

Action-verbs for Résumés

accelerated	consulted	executed	keyed	projected	sparked
accomplished	contributed	exercised	keynoted	promoted	specified
achieved	controlled	exhibited	led	prompted	sponsored
acquired	converted	expanded	lightened	propelled	stabilized
activated	cooperated	experienced	liquidated	proposed	staffed
addressed	coordinated	extended	located	proved	standardized
administered	corrected	extracted	maintained	provided	started
advanced	created	facilitated	managed	published	stimulated
advised	cultivated	finalized	manufactured	purchased	streamlined
advocated	decentralized	financed	marketed	re-established	strengthened
allocated	decided	forecasted	mastered	realized	stretched
ambition	decreased	formulated	mobilized	recognized	structured
analyzed	defined	formalized	modified	recommended	studied
anticipated	delegated	founded	monitored	reconciled	substantiated
applied	delivered	fulfilled	motivated	recruited	succeeded
appointed	demonstrated	generated	negotiated	redesigned	summarized
appraised	designed	governed	nominated	regulated	supervised
appreciated	detailed	guided	normalized	reinforced	supported
approved	determined	handled	obtained	related	surpassed
aspired	devised	headed	officiated	renegotiated	surveyed
arranged	directed	hired	operated	reorganized	sustained
assembled	discovered	identified	ordered	reported	tailored
assessed	displayed	implemented	oriented	represented	taught
assigned	distinguished	improved	originated	researched	terminated
assisted	distributed	improvised	overcame	reshaped	tested
attained	documented	increased	overhauled	resolved	tightened
audited	doubled	induced	oversaw	responded to	traded
avoided	earned	influenced	participated	restored	trained
broadened	edited	initiated	perceived	revamped	transacted
budgeted	educated	innovated	perfected	reviewed	transferred
built	effected	inspected	performed	revised	transformed
calculated	eliminated	inspired	piloted	revitalized	translated
captured	employed	installed	pinpointed	revived	trebled
centralized	enabled	instituted	pioneered	satisfied	trimmed
clarified	encouraged	instructed	placed	saved	tripled
collaborated	energized	insured	planned	scheduled	undertook
combined	enforced	integrated	pleased	secured	unified
commanded	engineered	intensified	popularized	selected	used
completed	enhanced	interpreted	prepared	served	utilized
composed	envisioned	interviewed	presented	suggested	verified
conceived	established	introduced	presided	set up	widened
concluded	estimated	invented	prevented	settled	withdrew
conducted	evaluated	invested	processed	shaped	won
connected	examined	investigated	procured	showed	worked
consolidated	exceeded	judged	produced	simplified	wrote
constructed	exclusive	justified	programmed	solved	

Sample of Consulting Firms

A.T.Kearney	www.atkearney.com
Accenture	www.accenture.com
Advisory Board, The	www.advisoryboardcompany.com
Alexander Group, The	www.thealexandergroup.com
Arthur D. Little	www.adlittle-us.com
Bain & Co.	www.bain.com
Bearing Point	www.bearingpoint.com
Booz Allen Hamilton	www.boozallen.com
Boston Consulting Group, The	www.bcg.com
Cambridge Associates	www.cambridgeassociates.com
Cap Gemini Ernst & Young	www.capgemini.com
Charles River Associates	www.crai.com
Deloitte.	www.deloitte.com
DiamondCluster International	www.diamondcluster.com
Gallup Organization, The	www.gallup.com
Gartner	www.gartner.com
Hay Group	www.haygroup.com
Hewitt Associates	www.hewitt.com
Hitachi Consulting	www.hitachiconsulting.com
IBM Business Consulting Services	www-1.ibm.com/services/bcs/index.html
L.E.K.Consulting	www.lek.com
Manhattan Associates	www.manh.com
Marakon Associates	www.marakon.com
McKinsey & Co.	www.mckinsey.com
Mercer Human Resource Consulting	www.mercerhr.com
Mercer Management Consulting	www.mercermc.com
Mercer Oliver Wyman	www.merceroliverwyman.com
Monitor Group, The	www.monitor.com
Navigant Consulting	www.navigantconsulting.com
NERA	www.nera.com
North Highland Company, The	www.northhighland.com
Parthenon Group, The	www.parthenon.com
PriceWaterhouse Coopers	www.pwc.com
Roland Berger Strategy Consultants	www.rolandberger.com
Scott Madden, Inc.	www.scottmadden.com
Stern Stewart & Co.	www.sternstewart.com
Towers Perrin	www.towersperrin.com
Vision Consulting	www.vision.com
Watson Wyatt Worldwide	www.watsonwyatt.com
ZS Associates	www.zsassociates.com
Zyman Group, The	www.zyman.com

Interview Evaluation Form for Mock-interviews

Non-Verbal Cues		DS	HP	PS	LP	NC	NA	Comments
1	Poise and Presence							_____
2	Confident, not arrogant							_____
3	Relaxed, not sweating bullets							_____
4	Eye contact							_____

Behavioral / Fit		DS	HP	PS	LP	NC	NA	Comments
1	Evidence of Leadership							_____
2	Evidence of Teamwork							_____
3	Evidence of Ambition & Drive							_____
4	Evidence of Academic Excellence							_____
5	Contribution to Society (School, volunteering, community)							_____
6	Evidence of Life Outside of school							_____
7	Evidence of Commitment to Consulting							_____

Case/Problems Solving Skills		DS	HP	PS	LP	NC	NA	Comments
1	Understood the question							_____
2	Took a minute to self to think about problem							_____
3	Articulated a framework							_____
4	Visually shared framework							_____
5	Choice of framework							_____
6	Structured in the analysis							_____
7	Asked focused and consequential questions							_____
8	Identified key problems							_____
10	Quality of recommendations (creativity, practicality)							_____
11	Quality of summary statement							_____
12	Followed interviewers hints							_____
13	Held composure when pressured							_____
14	Incorporated real examples							_____
15	Overall business knowledge							_____
16	Overall communication skills (Concise, didn't ramble, didn't bore you to tears)							_____
17	MECE (Mutually exclusive, collectively exhaustive)							_____

Grading

- DS** Home run! Hire this person right away!
- HP** Well structured, got the majority of the issues, stands a good chance in final round interviews.
- PS** Sufficient enough to move to the next round, but nothing to brag about.
- LP** Did not make the cut, but has potential.
- NC** Look for another career.

More Resources

- Ace Your Case! – Wet Feet Press
- Vault Reports “Case Interviews” - vaultreports.com
- Ten-Day MBA - Steven Silbiger
- Job Juice Cards (Consulting)
- Dangerous Company - James O’Shea and Charles Madigan
- Recruiting brochures of the firms
- Web-sites of the firms
- The Consultants News
- So You Want To Be a Management Consultant - Wet Feet Press
- Industry Guide: Management Consulting - vaultreports.com
- Your Professors: They know this stuff inside and out.
- Second-years: They have many cases in their heads.
- Alumni: Very valuable, very underutilized resource.
- CMC: Get to know them! They are very well-equipped (and very willing) to help you.