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Top Consulting Interview Prep

MCA
Management Consulting Association NYU Stern

TORCH THE CASE

NYU Stern Consulting Casebook 2015-16

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Welcome

Welcome to the NYU Stern Consulting Casebook 2015-2016!

The case-based interview is central to the consulting recruitment process. Some will tell you that the case interview is nothing more than a contrived exercise in jumping through hoops, while others will say it is a valuable process that provides great insight into the complex and dynamic world of strategy consulting. Regardless of which camp you fall into, it is indisputable that casing is a skill that, if mastered, will vastly increase your chances of landing a position at a top consulting firm.

The good news is twofold: firstly, it is a learnable skill, and extensive practice and thoughtful learning can get you very far. Secondly, there is a vast array of material available to help you to prepare. The MCA will recommend certain approaches and provide resources to support your learning, and there are many books, articles and websites that offer other perspectives.

A one-size-fits-all approach to casing is impossible. Different people prefer different approaches and everyone has their own strengths and weaknesses to work on. Indeed, the goal of casing preparation is not just to master the basics or any single approach, it is to go a step further and develop a personal style that is adaptable to any situation. You should look for opportunities to differentiate yourself based on your experience and perspective and try to bring something unique to the table that will make a memorable impression.

There are, however, three things that apply universally:

1. Start early. This is a challenge, particularly in the hectic first semester, but it is extremely important. There is no substitute for preparation and casing experience. Make sure to put yourself in the best position to succeed when you get to interviews.
2. Take ownership over the learning process. Drive your own learning, use the materials that suit you, focus on quality as well as quantity, seek insightful feedback from those who know what's required, and be honest with yourself about what you are gaining from each bit of preparation.
3. Aim high. Don't settle for being a competent caser, find a role model who is exceptional and get as close to that standard as you can. Give yourself the chance to truly excel.

Stern has come a long way as a consulting school, and we have every faith that the Class of 2017 will carry that forward.

Good luck!

Acknowledgments

The creation of this book was a collaborative effort building on the hard work of many previous classes. Many thanks to all who contributed, including but not limited to the following:

Class of 2016 General Editors:	Abhijit Gupta and Jonathan Smyrl
Case Book Design:	Abhijit Gupta and Jonathan Smyrl
Training Cases (Class of 2015 Case Authors):	Jeremy Wimmer and Alan Voyles
2015 Case Competition New Case Authors:	Wayne Atwell (BankCo Online Banking, Grad-U-Date), , Andrew Gouge (Sunshine Power), Jim Depeng Jin (Beijing International Airport), Aatman Chaudhary (Made to Measure)

We would love to hear your suggestions, corrections and questions. Please contact us: **mca@stern.nyu.edu**

The following firms provided sample cases for inclusion in Torch the Case 2015-16. We extend our sincere thanks to these firms for their contributions and continued commitment to Stern:

Deloitte.

McKinsey&Company

Capgemini Consulting

Sample Frameworks

Maximize Profit

Profit – how do we maximize?

Strategy / Objectives	Internal Analysis - Operations		External Analysis	
	Components of Revenue	**Components of Cost**	**Market / Customers**	**Competition / Industry Trends**

• Are there any significant actions we need to take to increase revenue and reduce costs?
• What is the best mix of V, P, and C?
• Drop in R?
  • Focus on Mkt + Distro
• Increase in C?
  • Focus on Production, Labor + Finance
• Drop in P, but Increase in R?
  • Changing costs?
  • Changing prices?
  • Prod. Mix
  • Change in Customer needs?
• Solutions – ST and LT
	• Current state assessment – product mix broken down by P, V, and Geo
	• Options to increase:
	  • P, V, new products?
	• P
	  • Elasticity?
	• V
	  • Where is fastest growth across Product Mix?
	  • Expand to new areas?
	  • Increase sales (Volume + Force)
	  Reduce prices
	• Improve customer service / increase retention rate
		• Current state assessment – cost structure broken down by VC and FC
		• Comparison w/benchmarks
		• VC
		  Direct Labor + Materials
		  Reduce cost or amount?
		  Economies of scale
		  Suppliers
		• FC
		  PPE, LT Contracts, R&D, other assets – can sell, change?
		• Outsource?
			• Current market size / share
			• Customer segmentation
			• Distro Channels
			• Share change in response to price / volume changes?
				• How do we compare to competitors on R and C?

Deeper Dive

Volume	Prices	Niche Markets	Variable Costs	Fixed Costs
• What has volume been over time? • Do we have it by product line or sub-category? • What are the reasons for the change?	• How have prices changed over time? Why are they constant? • What are the risks of price changes? • What are the expected trade-offs between volume and price?	• Are there niche markets where we undersell or do not sell? • Do we have the skills to reach these customers? • How long will it take to mobilize and begin selling?	• Are there obvious variable costs that can be reduced? • Which variable costs will be harder to reduce? • What variable cost reductions have been made thus far?	• Are there any fixed costs (i.e. lease) where the contract is almost complete? • Are there any fixed costs that we can slow (i.e. replacing equipment) or eliminate?

Merge, Acquire, Joint Venture

Merger – what to consider?

Strategy / Objectives	Internal Analysis			External Analysis	
Why? • Increase market access? • Diversify holdings? • Pre-empt competition? • Tax advantages? • Synergies? We're growing through acquisitions, so…	**Revenue Synergies**	**Cost Synergies**	**Due Diligence / Integration**	**Ind. / Competition**	**Econ / Reg**
	• Establish value of company using current Rev streams • Establish new value w/new streams • Rev growth? • Vol. up through new products? • Prices up through new customers? • Cannibalization / Bundling	• Establish baseline costs • Consider cost reductions: • Lower headcount • Consolidate facilities • How to combine / save?	• Systems consolidation • CULTURE – align ppl • Financing – where? Price – Fair? Affordable? • How long to keep? • Divest parts?	• What are trends? Other deals going on? Structural shift in industry? • Why would comp. do this? • What shape is company / industry in?	• What if econ sours?

Deeper Dive

Sales	Organization	Costs	Customer Expectations	Deal Mechanics
• To what degree will they increase? • What do we stand to lose as a result of this action?	• How will our two organizations work together? • Where are the potential biggest problems in bringing them together? • Are there any deal-breakers?	• Are there any cost categories that will decrease immediately? • To what degree can we reduce them? • Will we risk our business with these cuts?	• How will the combined entity or partnership meet the needs of the customers? • How will customers respond to the merger / JV / acquisition?	• How will the deal roll out? • What is the timeline, and what are the expected costs and potential delays? • Who is required to make the deal happen?

Growth Strategy

Growth – how should we grow?

Strategy / Objectives	Internal Analysis			External Analysis	
	Growth Options - Revenue	**Growth Options - Cost**	**Implementation - Supply Chain / Distro / Finance**	**Ind. / Competition**	**Econ / Reg**

• Assess growth options
  • New Products
  • Diversify –
    • more of same to existing customers
  • Adjacencies
  • New Marketing
  • New Niches
  • New Channels
  • Acquisitions
• Estimate value of each option
	• Examine current revenue streams / establish baselines
	• Consider following options:
	• Vol. increase
	• Price increase
	• Mix shift – sell more high priced items
		• Cost reduction = profit growth
		• Consider per-unit cost reduction to boost profit
			• What supply chain inputs do we need to grow?
			• Can our current distro channels handle increased volume?
			• Where will funding come from?
			• How will maintain funding?
				• Industry growing? How do we compare?
				• What are competitor's strategies / how are they growing?
				• Has landscape changed?
				• Tech changes?
					• Are there any consequences of legislative decisions recently introduced?

Deeper Dive

Segmentation	Increase Volume	"Buy" Market Share	Innovation	Invest in Growth	Cost Reduction
• How big is our market? • What's our market share? What niches exist that we don't cover today? • Can our product line work in this (new) space?	• Expand # of distro channels • Increase product line through diversification of products or services • Invest in a marketing campaign • Adjust prices • Create a seasonal balance	• Is Company Y for sale? • Why are they selling? • How would their product line fit into ours? What level of return do we expect over what time period?	• Can we adopt newer technologies? • Do we have R&D people who can develop new / better products?	• Are there divisions where we could invest more funds to seed growth? • Which product lines are growing the fastest and could use additional investment?	• Will cost management play a role in boosting profit? • How can changes in our product variable costs quickly bump up profit? Can this profit be used for growth?

New Business or Product

New Product – how to succeed?

Strategy / Objectives	Internal Analysis				External Analysis
	Product Assessment	Revenue Assessment	Cost Assessment	Org. Assessment	Ind. / Competition

• How does this affect our existing product lines?
• Are we cannibalizing our own sales?
• Are we replacing an existing product?
• What will competitive response be?
• What are barriers to entry?
• Who are (current) major players, and what is their mkt shr?
	• What's unique / proprietary about it?
	• Is it patented? For how long?
	• Do similar products / substitutes currently exist?
	• How does it fit within the rest of our product line?
	• Can our sales force sell it?
		• Who wants this product?
		• How much can we price it for?
		• Will pricing change on current products?
		• What do we need to do to produce desired volume
			• What are the total costs involved
			• Upfront costs
			  • PPE
			  • R&D
			• Fixed / Var costs
				• Team – who will head this up?
				• Suppliers – any raw material problems?
				• Can we use same distro channels?
				• Fund normally? Or new equity / debt?
					• Competitors – same product offered?
					• Industry – overall trends – is our timing good?

Deeper Dive

Demand / Customers	Product	Internal Support	Competitors	Costs
• Do we have evidence that people want this product? • Can we estimate demand? How about price? • Where do we see demand to be highest?	• What is unique about our product? • How long do we expect our unique advantage to last?	• Is the team in place? Do we have the right skills? • How will we sell and distribute the product? • Is our financing in place?	• How will competitors respond? • Are they developing any new products or strategies?	• Do we have a good estimate of total costs? • How will these costs be broken down? • What are some risks associated with these costs?

Enter a New Geography or Market

How do we enter a new market?

Strategy / Objectives	External Analysis		Internal Analysis		
	Market / Comp. Analysis	**Industry Analysis**	**Revenue Assessment**	**Cost Assessment**	**Org. Assessment**

• Why do we want to enter this market?
• How do we pick the market?
• What attributes do we need to make this decision?
    • How much market share, and what time frame?
• Options to enter:
    • Start from scratch
    • Acquisition
    • Joint Venture
• Analyze pros / cons of each option
	• What is size / growth of current market?
	• Who are customers, how are they segmented?
	• Who are competitors, what size market share do they have?
	• Substitutes?
	• Which country / market is easiest to enter?
		• Where is industry in life cycle?
		• What role does tech play in the industry, how quickly will it change?
		• Barriers to entry / exit:
		• Capital requirements
		• Access to raw materials
		• Access to distro channels
		• Government policy
			• What is our current revenue stream, trends, and product mix?
			• How will we price products / services in new geo / market?
			• Which customers will pay the most?
				• What are total costs involved for each of three options?
				• What would on-going cost structure look like?
					• Suppliers – do we have the supply chain in place that we need?
					• Team – who will head this up?
					• Will we market same products, or develop different ones?
					• Can we use the same distro channels?
					• How will we fund?

Deeper Dive

Demand	Product	Internal Support	Competitors	Geography Challenges
• Do we have evidence that people want this product? • Can we estimate demand? How about price? • Where (geography / market) do we see the highest demand?	• How will the product attributes fit the geography? • How will the product need to be modified to best fit the new market?	• What are the distribution and sales plans by geography? • Does our team have international experience? • Is our financing in place?	• How will competitors respond? • Are they developing any new products / strategies that will beat us in terms of timing, price, or design?	• How different is this new geo or market from the areas we serve today? • What items do we need to respond to in the near term (i.e. language barriers)?

Exit a Business or Market

What's our exit strategy?

Strategy / Objectives	External Analysis		Internal Analysis		
	Market / Comp. Analysis	**Industry Analysis**	**Revenue Assessment**	**Cost Assessment**	**Org. Assessment**

• Why do we want to exit this product line / market?
• What is total impact on RemainCo?
• Is the organization ready?
• Options:
  • Sell the division / product line
  • Liquidate the assets
  • Turn around via increased investment
  • Float division (IPO)
• How do we value the asset?
  • PE Multiple / DCF Analysis
  • Comparables
  • Precedent Transactions Analysis
• Analyze pros / cons of each option
• Structure deal mechanics, then separation mechanics
	• How will competitors respond? How are they doing with similar product lines?
	• Are other players leaving?
		• How will this industry shift make new opportunities
		• What have comparable businesses / products lines sold for?
			• What is our total drop in revenue?
			  • Vol
			  • Price
			• Will customers buy other products?
				• What are our total cost savings
				  • Var
				  • Fixed
				• How do we compare with benchmarks
				• Is outsourcing an option
				• What are our legacy / one-off costs?
					• Who in the organization needs to go? Can we reposition / re-train some employees?
					• How will workload shift to current employees?
					• Will R&D suffer w/fewer people?

Deeper Dive

Volume	Prices	Innovation / Team	Competition	Customer Reaction
• How much will the volume drop after exiting the product line? • Will other products in our portfolio suffer related volume losses?	• If we exit, will there be any impact on our current pricing? • Will this exit shift the image of our company (i.e. remove low value line), allowing for higher pricing?	• Are there niche markets where we undersell or do not sell? • Do we have the skills to reach these customers? • How will our team suffer the most?	• What is our competitor's offering in relation to the one we are exiting? • Will they modify their products or capture new share due to our absence?	• Will customers continue to buy our other products? • Will this exit prompt them to try other brands, leading to additional losses? • How will their perceptions change?

Change Price

Pricing – how do we price to our advantage?

Strategy / Objectives	Internal Analysis - Operations			External Analysis	
	Price Basis (Current)	**Revenue Assessment**	**Cost Assessment**	**External Review**	**Measurement**

• What is our objective?
  • Increase profit
  • Increase volume
  • Position brand
• Which strategy do we / should we follow?
  • Competitive pricing
  • Cost-based
  • Price-based
• Analyze pros/cons of each strategy, perform sensitivity analysis to price increase / decrease
	• What is current state?
	  Cost-based pricing?
	  Price-based costing?
	  Competition-based?
	• Is pricing driven by market demand / suppliers / competitors?
		• Price elasticity – how will increase / decrease in price impact volume	• Review variable costs – possible to reduce price and suffer little profit loss?	• Industry overall – pricing trends, price elasticity
				• How does product compare to competition?
				• Are there substitutes / alternatives?
				• Competitive response
					• What is market response to new prices – sensitivity analysis
					• How do we measure impact on volume

Deeper Dive

Prices Too Low	Prices Too High	Customer Response	Variable Costs	Pricing Mechanics
• When was the last time we performed a price increase? • How have competitors been pricing? Have we missed an increase? To what degree are we lower?	• What happened to sales volume when we lowered prices? • What evidence do we have that competitors have had the same experience?	• How have customers responded in the past to both increases and decrease? • Is there evidence that they will respond in a similar manner going forward?	• How can our pricing changes be assisted with reductions in costs? • Can we hold off on any pricing changes for a while by reducing costs?	• How we roll out the new pricing? • What will our sales people say for business-to-business sales? • For retail sales, how will we advertise the change?

Streamline a Process

Process – how do we streamline it?

Strategy / Objectives	Internal Analysis			External Analysis
	People and Steps	Revenue Assessment	Cost Assessment	External Review / Measurement
• What are delays costing us? How to quantify? • How can we tie process improvement to strategic levers (+R, -C) of organization?	• What is each step of the process? How long does each step take? How consistent is the output? • Who are the people involved? • Which steps are most value-added? How do we prioritize them?	• How will improvements in this process result in additional revenues? • Can we assess additional volume that can be processed, and will customers buy this volume?	• How much money will improving this process save us? • How much do we need to invest in this process improvement? • How long until we pay back this investment?	• Compare to external benchmarks • What is gap between us and competition? • Between us and industry averages?

Deeper Dive

"Broken" Process	Wait Times	Customer Response	Variable Costs	Competitors
• What problems have we seen with the process? • How have these processes hurt the bottom line? • What are the worst parts of the process?	• What are the wait times today? • What portions of the process will change? • What is the expected wait time after the process is complete?	• How many customers left due to the slow OTC process? • How many of them were satisfied with other aspects of our service? • What % are estimated to return?	• How much money do we need to invest to change the process? • Aside from investments, what specific costs in the process will go up or down?	• How do we expect to beat the competition with our process changes? • What specific change will give us the greatest advantage?

Restructure the Team

How should we optimize the team?

Strategy / Objectives	Internal Analysis - Operations			
	People and Workflow	**Revenue Assessment**	**Cost Assessment**	**Steps and Measurement**

• Do we re-train existing employees, or hire new ones?
• What additional benefit will the organization obtain from the re-structured team, and will this offset the cost to upgrade their skillset?
	• Size of team
	• Overall Role
	• Major roles that need to change
	• What are the skillsets we have? What are the skillsets we need?
		• How will changes to our people result in boosting revenue?
		• Will the volume of sales or price we procure from the market change as we restructure?
			• What are the total costs?
			• What portions are related to sub-groups or per team member?
			• How much would training cost?
			• How long will it take us to pay back any increases in salary or overall people costs?
				• Baseline Measurement?
				  • Profit per person
				  • Revenue per person
				  • Efficiency
				• What results do we want to see?

Deeper Dive

Overpaying	Internal Results	Revenue Increase	Team Structure	Roles
• How much are we paying today? • How does this compare to the marketplace? • Where can we cut costs and still maintain or improve the skill set?	• Where are there problems between our team and other internal groups? • How does that need to change going forward? • What do we need to do first?	• Can we reallocate people to more value-added activities? • Are the sales people over-burdened with administration and not making enough time to generate new business?	• What kind of structure are we proposing? • How will people report to one another? • In what ways will the work be completed differently?	• How will roles specifically change? • What kind of response do we expect from those people whose roles have changed?

Competitor Attack

How do we fight off a competitor attack?

Strategy / Objectives	Competitive Response			
	Competitor Analysis	**Revenue**	**Costs**	**Action Steps**

• What kind of action do we need to take to respond?
  • Introduce a new product?
  • Change our pricing?
  • Match their changes?
  • Look for talent?
	• How are they competing?
	• Is it on price, new innovation, better distribution?
	• What are the bottom line results for them?
	• How would we describe their new products or services?
	• Have they established new relationships with our suppliers or our buyers?
		• Quantify impact on our revenue
		• Price – is the competition lower?
		• Volume – if we drop our prices to match, will volume rise?
			• How have their actions impacted our cost structure?
			• How does their cost base compare?
			• Where can we potentially match their costs?
				• What has to change first?
				• Organizational changes?
				• Product Lines?
				• Pricing?

Deeper Dive

Competitor Products	Revenue Impact	Innovation	Product Cost	Customer Reaction
• What is the tech that our competitor is offering? • Can we match it? • Of the products that are in our pipeline, how soon can we get them out?	• What else is happening in the industry? • Are these new entrants offering the same products? • Even though their quality is lower, are they taking revenue?	• After launching these new products, will they have others? • Will our output of new products match the competitor's? • How long can we sustain this innovation?	• Have competitor actions caused us to spend more on product innovation? • What specific costs will go up (services, product parts, etc.) that may hurt our business?	• How have customers responded overall to what the competitor is doing? • Do we sense any shifts in customer loyalty?

Market Shift

How should we handle an industry shift?

Strategy / Objectives	Client Response			

• How can we gain from this situation?
  • JV?
  • Acquisition?
	External Forces	**Rev. Streams**	**Costs**	**Organization**

	• Will our supplier relationships change? • How will competitor strategies shift? • Is this a short-term or long-term industry change? • What legal and technological shifts will happen as a result?	• Which ones are in danger / stand to improve? • How can we maintain price? • To what degree will volume drop? • What options do we have to protect these streams?	• What specific ways will the shift cause us to increase costs on products or services? • Which fixed costs may no longer be relevant? Can we dispose? • How will var. costs shift by product line? • Are there new cost savings as a result of the overall change?	• Are there systems or people changes that we can make to combat or diminish the negative impact of the shift?

Deeper Dive

Obsolete Products	Customer Shift	Innovation	Product Costs	Competitor Shift (Attack)
• Will our technology still be valued in the market? • Is there an opportunity to use our products in a different manner?	• What percent of our customers is interested in the new technology? • How quickly will they defect? • Is there anything we can do in the short term?	• What technology do we have in the pipeline that can match this innovation? • Can we acquire a smaller player to gain knowledge and build products?	• How will the shift impact variable costs in particular? • Will any change in the product features or method of production cause costs to increase?	• See prev. framework

Industry Overviews

Airlines

Overview

Summary

- Airlines provide air transport services for passengers and freight
- The industry was deregulated in 1978 free from government control of fares, routes, merger and acquisitions. This helped to completely transform air travel from a luxury to a mass-market service
- This has contributed to historically low margins

Industry Structure
Major Airlines: revenues > $1B **National Airlines**: revenues $100M-$1B
Regional Airlines: revenues < $100M

Major Players

Delta, American, United

Stakeholders

N/A

Products

- Air Transportation Services
- Freight

Customers

- Individual consumers
- Corporations/small businesses
- Travel web sites/resellers

Comp. Landscape

Established **legacy carriers** (e.g., Delta, American, United) compete with **each other** and with **low-cost operators** on multiple domestic routes; **price** is usually the major competitive factor. Some domestic carriers also operate international routes, placing them in competition with overseas airlines

Channels

- **Internet** – airline websites, online ticket resellers
- **Telephone** – airline call center agents
- **Travel agents**
- **Over-the-counter** – walkups at airports

Trends

- **Mergers**
  The industry has seen a lot of consolidation in recent years. There are 3 major US carriers, down from 6 a few years ago (eg, United/Continental Delta/Northwest)

- **Bankruptcy**
  Mergers primarily happened as the due to several airlines filing for **bankruptcy and going out of business.**
  There has been a barrage of bankruptcies in the industry. More than 20 airlines have filed for bankruptcy in the last decade

- **Potential problems of declining revenue**
  - **Inefficient network:** look at route profitability and see if some of the routes could be eliminated
  - **Poor use of fixed capacity:** increase volumes to tackle this issue

Drivers

Revenue

- Airlines have been really creative to add several revenue streams to their business
  - Passenger fares
  - Mail and cargo charges
  - Meals / alcohol in flights
  - In-flight entertainment
  - Extra baggage/seat prices

- Customers are broadly categorized as:
  - **Leisure:** highly price sensitive
  - **Business:** not price sensitive, hard to reach

Cost

VC: fuel, food and beverage, ground crew/hourly employees

FC: aircraft leases, airport gate leases, IT/admin costs, salaried employees (i.e., pilots)

- The Airline industry is **capital** and **labor** intensive
- **Fuel:** Fuel costs are highly volatile and can range anywhere from 25% - 40% of the total cost for an airline
- **Labor:** costs in 2009 was 26% of the total cost. Labor is unionized, and pilots have few substitutes
  - Includes pilots, attendants, ground services, dispatchers, maintenance, customer service
- **Equipment:** is around 10% of the total cost
- Some airlines lease fleets rather than buy

Automotive

Overview

Summary	Industry is engaged in the design, production, marketing, sale, and servicing of motor vehicles. New light vehicle sales in the US expected at **11.7 million for 2010. Volume increase is forecasted** in 2011, to 13.5 million. **Heavy capital commitments** required to keep pace with product development and model changeovers. **Demand** is naturally affected by economic environment. **Auto parts manufacturers highly fragmented:** produce original parts and accessories for new vehicles, replacement parts, and accessories for older vehicles, or both **Labor** is often unionized and wields power
Major Players	GM, Ford, Toyota, Honda, VW, Mercedes Benz
Stakeholders	N/A
Products	• Cars + Trucks • After-sales parts
Customers	• Individual customers • SMEs • Government
Comp. Landscape	**Extremely competitive.** The US is the world's most competitive auto market. **Detroit Three losing market share:** GM, Ford, and Chrysler. The top three foreign companies have a combined US market share of 41.5%: Toyota, Honda, and Nissan
Channels	• Dealerships

Trends

- **US share of global market shrinking:** In 2009, China overtook the US as the largest market for new vehicles. US accounted for **16.3% of global demand.**
- **Demand in developing markets**, including the BRIC economies, is projected to outstrip that of the world's mature markets.
- **US and global sales to advance:** Production in NA was up 70% in the first quarter of 2010. Europe may lag. Companies in China, Russia, India to make acquisitions in the US.
- **Alternative fuel and hybrid vehicles:** All automakers are developing the technology: ethanol, methanol, natural gas, and electricity derived from batteries or solar power.
- **Auto parts:** online procurement has changed the business, with increased transparency pressuring selling prices for commodity items. **Bankruptcy:** GM, Chrysler, GMAC (auto lender) and suppliers filed for bankruptcy and some for bailouts in 08/09
- **Distribution:** Main channel is – dealership model. Rapid consolidation in recent years.

Drivers

Revenue

- **Factors affecting new car sales:** changes in style, engineering, safety, quality, cost and availability of gasoline and insurance.
- **Price increases are limited.** Rising competition in NA and Europe has restricted manufacturers' pricing power.
- **Demand, sales rise** during sustained economic growth and plentiful employment.
- **Tactics to stimulate demand:** discounts and cash rebates, (dealers' discounts,) financing at lower interest rates, eliminating options on a model to offer a low-priced alternative.

Cost

- **Capital expenditures of 2010:** GM $6.0 billion, Ford $4.5-5 billion, Toyota $8.1 billion.
- **Costs breakdown:** plants, raw materials, design, production, labor, distribution, marketing, and customer service.
- **Suppliers:** number shrinking, due to globalization, reduced volume from US automakers, high material and labor costs.
- **Oil prices and raw material prices**
- **Cost cutting tactics:** higher unit production volume, savings on parts and labor, improved manufacturing efficiencies.

Banking and Financial Services

Overview

Summary

Diversified Financial Services firms: large financial conglomerates (e.g. JP Morgan Chase & Co.) which combine insurance, securities, and lending businesses

Consumer finance firms: primarily lend money to consumers: mostly through small to midsized loans ($1,000 to $75,000). The main products include home equity loans, credit card loans, etc.

PE/VC firms: invest in and help manage or guide businesses with hopes of company growth resulting in profits from a later sale

Major Players

JP Morgan Chase, Citigroup, Wells Fargo, Bank of America, American Express, MasterCard, Morgan Stanley

Stakeholders

N/A

Products

N/A

Customers

- Individual consumers
- High net worth Individuals
- Small/medium businesses
- Large Corporations (I-Banks)

Comp. Landscape

Large **national** players compete with **regional** banks.

Channels

- Still large face-to-face presence with bank branches, tellers, etc
- Increasing use of ATM services, online banking
- Banks increasingly offer credit cards, home loans, etc as means to increase asset base
- Mobile Channel growing rapidly

Trends

As a result of recent financial crisis, regulations have increased (controlled by Treasury Department, The Federal Reserve, House and Senate bills)

The US government intervened in 2007-09 to lend money to banks, insurers, and other key players to keep the financial system afloat.

Trend towards large "financial supermarkets" like Citi may be reversing, as many large banks sold off divisions for needed cash during the downturn

Post- financial crisis, many financial institutions have stopped proprietary trading, or placing bets with their own assets.

The Dodd-Frank act, which has not been fully implemented, includes new and consolidated federal regulatory agencies, stricter capital requirements for banks, and regulates the trading of certain derivatives.

- Credit crisis / financial meltdown threatened solvency of industry due to illiquid assets difficult to value
- Consolidated, mature industry with primary growth through acquisitions
- Demographic shift (baby boomer aging) creating large market for retirement products
- Offshoring of various functions to reduce expenses (e.g. call centers, back office functions)

Drivers

Revenue

Commercial Banks earn money by reinvesting customer deposits in higher-yielding funds or lending at higher rates and charging transaction fees

Net revenue is the spread between bank's borrowing cost and the rates charged to borrowers; fees

Investment Banks charge fees for advising corporate and governmental clients on mergers, acquisitions, restructuring, and debt and equity issuances

Insurance Companies earn money by taking in monthly premiums from customers, who receive a payout if an event occurs

Credit Card Companies (Visa / Discover) earn fees from customers and merchants by handling the complex processing necessary. AMEX does the same, but also lends the customer money.

Cost

Research (whether to buy/sell securities, or suggest a specific merger)

Salary and benefits, supplies, insurance

Losses on investments like loan defaults

Risks, such as a sudden demand from many customers to redeem their money

Life Sciences

Overview

Summary	Historically among the world's most profitable industries • Total domestic expenditures > 100B • Worldwide sales are expected to increase 58% per year (similar figures in the US), and reach $1.1 trillion in sales by 2014 • In 2009, the US and Europe markets made up approximately 39% and 32% of the worldwide market followed by Asia, Africa, and Australia (12.7%), Japan (11.3%), and Latin America (5.7%) • Typically high economic, regulatory and legal barriers to entry
Major Players	Pfizer, Roche, GSK
Stakeholders	Payers, Providers, Patients
Products	Branded/ Ethical/ Originator drug producers produce original patent-protected drugs for human and animal diseases • Generic drug producers produce 'copy-cat' drugs at a lower development cost when the originator drug's patent expires • Products target various treatment areas (TA): cancer, cardiovascular, psychology, etc.
Customers	Doctors who prescribe: "providers" • Insurance companies "payors" • Patients/consumers (segmented by disease) • In some emerging markets, various officials (hospital, provincial and central government) control access
Comp. Landscape	Key success factor comes down to one thing: products
Channels	• **Over the counter** ("OTC", can be sold without prescription): Retail outlets – CVS, Walgreens; Mail order • **Prescription drugs**: Hospitals; pharmacies • **B2B**: Distributors / intermediaries ; hospitals; pharmacies

Trends

- **Megatrends**
  - Breakthrough Therapies, Gargantuan Prices
    - Ex.: Gilead / Sofosbuvir
    - Will this trigger gov't intervention?
  - Expanded Coverage, Limited Access
  - More People Insured, More Out Of Pocket Expenses
  - Health Care Models Evolving, Costs Largely Unaffected
    - **Integrated Models** lead to better clinical outcomes
    - Financial model shifting to reward value vs. volume of services provided
  - New Tech, Untapped Potential (incentives for EHR)
- The growth of the industry has been supported by an aging population (in developed markets), lengthening of the life expectancy, and rising incidence of chronic diseases
- **Emerging markets** lead industry growth; CAGR is expected to be 14-17% through 2014
- **Patent Cliff**: Patent expirations are expected to peak in 2011-2012; resulting revenue loss has forced many companies to downsize to maintain high levels of profitability
- **Large pharma companies** are increasingly relying on purchasing or partnering with young / niche firms to create growth
- Uncertainties introduced by **ACA** ("Obamacare") and lagging drug approval times by FDA is expected to slow growth
- **Insurers** are getting increasingly more stringent on which medications they will reimburse
- **Rise of biologics / biosimilars**
  - Currently, 22% of big pharma sales; +1% /yr for nxt 10 yrs
  - Large molecule vs. small molecule compounds
  - Viruses to deliver "gene therapy"
  - Hard to make / difficult to take (injected / infused / inhaled vs. swallowed)
  - Big advantage: specificity / lack of side effects
  - Biosimilars: sort-of equivalent to generics
    - Similar rather than identical
    - Also costly to make (unlike generics)
  - End result: patent cliff not as steel for biologics
- Patents vs. Exclusivity Agreements
  - **Patents**: only one company can produce drug
  - **Exclusivity**: government will only buy from one company
- Orphan Diseases (Rare diseases affecting small population, Pharmas are targeting these diseases with Biologics)

Drivers

Revenue

- **Size of specific treatment** area / level of competition
- **Buy-in from doctors** that will prescribe
- **Time to market**/ expertise in difficult products (for generics)
- **New products** – premium-priced breakthrough therapies that open new markets
- **Patent protection** – commercial life of a branded drug is approximately 10 years
- **OTC** – some pharmas are introducing OTC versions to combat generics when patents expire

Cost

VC:

- **Sales and Marketing**: doctor visits, sponsored studies; US companies spend approximately $20B/year on promotions

FC:

- **R&D**: drug discovery, formulation, clinical trials; costs higher than any other industry; can take 10+ years for new drug development

Healthcare Payors

Overview

Summary

What Payors Do
- Underwrite health insurance policies
- Provide admin services for self-funded plans (e.g. employers providing benefits with own funds)
- Help manage individuals' care

Industry Stats
- Revenues/Profits: $707.4B/28.3B (4%)
- CAGR '07-'12 / '12-'17: 2.8% / 5.1%
- Number of businesses: 927

Major Players

United Healthcare, Humana, Aetna, WellPoint, Cigna

Stakeholders

N/A

Products

Primary Plan Offerings
- **Fee-for-service:** Provider paid on one-off basis; patient choice not restricted
- **Health maintenance org:** Payer and provider integrated and pre-paid; cheaper, but patient choice limited
- **Preferred provider org:** Mix of FFS, HMO
- **High deductible:** Lower premiums but higher out-of-pocket obligation; patient has incentive to use services efficiently
- Pharmacy benefits

Customers
- Individuals
- Groups (via employers)

Comp. Landscape

Several large, integrated players
Some niche players in specific segments
The top four payors have ~35% share; the rest of the market is fairly fragmented
• Slow but steady consolidation expected to continue given profitability issues

Channels
- Salesforce
- Online
- Direct marketing via in-office demonstrations

Trends

- **Risk-Off Environment**
  - Credit crisis / financial meltdown threatened solvency of industry due to illiquid assets difficult to value
  - One of the global leaders (AIG) nationalized in credit crisis, emphasizing the importance of monitoring investment portfolio
  - US national healthcare policy changes could completely change the landscape of the health insurance market
  - Companies focused on managing risk and controlling costs
- **Healthcare Reform**

  Directly pressures payors' bottom lines by:
  - Eliminating coverage caps, denials based on pre-existing conditions, etc.
  - Increasing medical loss ratios (% premium dollars payers must spend on healthcare, with remainder going to admin and profit)
  - Increasing gov. scrutiny of premium hikes
  - Forcing payors onto exchanges for individuals; more price competition, less G&A scale than with employer groups

  However, the law will bolster top-line growth by growing the insured population
- **Macroeconomics**

  Recession precludes payors from increasing premiums in line with healthcare cost inflation
- **Chronic Disease**

  Long-term health complication (Minimize and make sure they are as compliant as possible) - (Big Money Makers for Pharma)
  - Heart Attack
  - Stroke
  - Diabetes

Drivers

Revenue

Insurance is fundamentally about underwriting various types of risks.
•Customers make regular payments (premiums) to the insurer for coverage when unforeseen events occur
•The insurer invests premiums to generate sufficient income to match future assets with future liabilities

Net revenue is the spread between premiums collected and claims/payments made over time

Payor revenues are largely dependent on external factors:
- Total health-related expenditures
- Number of physician visits
- Number of employed individuals
- Age of population
- Regulation and legislation

Payors also attempt to steal market share from one another by differentiating on:

- Steeper discounts on provider charges
- Broader network coverage
- Lower administrative fees
- Add-on services (e.g. case management)
- Attractiveness to individual consumers (once exchanges go live in 2014)

Cost

- Purchases of medical and Rx services/ products) comprise ~72% of costs; influenced by utilization and cost inflation.
- Relative to other sectors of healthcare, the health insurance industry is neither capital nor labor intensive.

Hospital Facilities

Overview

Summary	**Acute care hospitals** – 5,815 in 2008. Non profit entities account for 82% of this segment. Total revenues in 2008: $608 billion. Revenue CAGR (04-08) – 5.4% **Rehabilitation hospitals** (both stand-alone units & those attached to a larger facility) – 203 in 2008 **Psychiatric hospitals** – 447 in 2008; Avg. length of stay has remained stable at 9-10 days **Specialized hospitals** – orthopedics (25); obstetrics & gynecology (13); chronic disease (4); eye, ear, nose, and throat (6); & tuberculosis and other respiratory diseases **Nursing homes** – 15,531 in 2008, occupancy rate ~84% **Assisted-living facilities**, and home healthcare services
Major Players	HCR ManorCare, Apollo Hospitals, Northwestern Memorial Hospital, Children's Memorial Hospital
Stakeholders	N/A
Products	Procedures (elective / non-elective) Drugs / Medial Devices (prescription) Rehabilitation / Assisted Living services
Customers	Insurance Companies, Government ("payers"), patients
Comp. Landscape	Non-profit (chains / individual hospitals) For-profit (hospitals / clinics)
Channels	Hospitals, "Outpatient Facilities", Physician's Offices

Trends

- **Patient Protection and Affordable Care Act (PPACA)**

  ("Obama Care") reforms aspects of the private health insurance industry and public health insurance programs, increases insurance coverage of pre-existing conditions, expands access to insurance to over 30 million Americans, and increases projected national medical spending while lowering projected Medicare spending.

- **Shortage of Physicians and Nursing staff**

  As the population ages the shortage of primary care physicians will continue to get worse.

  Highly regulated by the government which is a key buyer for the hospital industry

  Gov't: account for 47% of healthcare spend

  Healthcare reform will extend healthcare insurance coverage to approximately 32 million of the previously uninsured by 2019

- **Consolidation**

  To reduce costs, nonprofit chains or individual nonprofit hospitals being acquired and/or entering into JV arrangements with the for-profit chains

- **Value Based Care**
  No Payment for patient readmission
  Fee for Service model
- **Urgent Care Clinics**
  Affecting Hospital ER demand

EMR (Electronic Medical Records)
Mobile (Tablets, Google Glass)
ACA knocked down reimbursement rates for MediCare MediCaid

Rise of Minute Clinics (WalGreens, Target, Etc.)

Drivers

Revenue

- **Inpatient admissions:** Has remained flat at ~118 admissions/1000 population
- **Procedures:** Decrease in admissions result of a shift towards procedures performed on an outpatient basis rather than in hospital
- **Reimbursement rates:** Controlled by gov't

Cost
- **Labor Costs** (Doctors, Nurses, Admins)
- **Uncompensated Care:** high % bills not billed to insurance is written off as bad debt
- **Taxes:** non-profits are exempt from some taxes

Demand

- Increase in **unemployment -> loss** of employer-based health coverage
- **Decline** in the rate of elective procedures
- **Shift** towards procedures performed in outpatient facility or physicians' offices that don't require an overnight hospital stay
- **New medical technologies** reduce or eliminate the need for hospitalization Increasing influence of third-party payers
- **Ageing** population

Medical Devices

Overview

Summary	**Industry Definition:** any healthcare product that achieves its intended purpose not through chemical action or being metabolized **Key Stats:** US industry includes about 11,000 companies with combined annual revenue of over $150 billion. Globally, the industry generates annual revenue over $400 billion. • Industry is concentrated: 50 largest companies account for ~60% of revenue
Major Players	Baxter International, Boston Scientific, Johnson & Johnson, Medtronic, GE & St. Jude
Stakeholders	N/A
Products	Devices range in complexity from tongue depressors to multi-million $ imaging equipment. • Most common are surgical appliances/supplies, surgical & medical instruments, electro-medical equipment, in-vitro diagnostic substances, irradiation apparatus (typically x-ray), dental & ophthalmic (eye) goods
Customers	**B2B:** Hospitals, Nursing Homes **B2C:** Insurance companies, Patients/consumers
Comp. Landscape	• Focus on **substitutes:** increasingly sophisticated pharmacologic products, growth in preventive medicine
Channels	**B2B:** Sales Force **B2C:** Pharmacies / Drugstores / Online

Trends

Growth:

- Industry revenue is projected to grow on average 6.6%/yr. from 2012 to 2017

Barriers to entry:

- High for small players; economies of scale and access to capital are critical to negotiate complex regulatory and approval processes
- Less standardized regulatory procedures than Pharma

Other

- Uncertainties introduced by PPACA (“Obamacare”) and lagging device approval times by FDA is expected to slow growth
- PPACA contains med device tax -will cost industry $20 billion over the next decade
- Increased government regulation around the globe threatening growth
- Recent difficulties in retaining qualified manpower to design and produce devices
- Aging population and increased access to care should help stem some of losses from forces mentioned above
- Growing attention to healthcare in developing markets

Drivers

Revenue

- Expanding emphasis on healthcare in developing countries
- Standardization of regulatory requirements across countries
- Growth in elderly population means increased demand for devices
- Improved patient longevity due to higher quality healthcare
- Innovation in product development due to strong scientific progress

Cost

- Research and development
- Regulatory approval and compliance process
- Sales (Sales Force driven) and marketing operations
- Federal and local taxes

Computer Software

Overview

Summary	Industry includes businesses for development, maintenance and publication of software, including productivity suites, games, mobile apps, hardware-specific software (both firmware and custom made software) and operating systems (including mobile platforms). **Industry Structure** **Total Revenues**: $303Billion (in 2010) **Industry Leader in Revenues:** Microsoft $69Billion (in 2010)
Major Players	Microsoft, IBM, Oracle, Symantec and Adobe, Electronic Arts, Blizzard, SAP
Stakeholders	N/A
Products	• **B2B:** Productivity (Office) / Platforms (ERP / CRM) • **B2C:** Productivity, Design, Gaming, Security
Customers	Relevant splits: • **By size:** Enterprise, SMB (small/medium businesses), Retail • **By type:** Business vs. consumer
Comp. Landscape	• Other software companies • Other technology-based services providers who develop custom software
Channels	**Business/Enterprise-focused**: Direct sales force. **SMB/Retail:** **I**ndirect channels (physical / virtual)

Trends

- **Digital Transformation:** For the last few years, there is an apparent slowdown in growth in the software industry, where gains are achieved through operational performance rather than technological innovation, and growth is accomplished through mergers rather than organic development. Due to convenience issues, piracy and security risks related to software-based ecosystems, the tech world is moving towards online services and mobility. Other than switching to other, software developers are also either focus on smaller & simpler versions for the consumer market (mobile apps) or on much more sophisticated software for the business market, mostly for CRM, IT systems, database and online services

- **SaaS:** Move towards rent v. own model – both data and platforms live in the cloud, and are paid for via subscription instead of a one-time purchase price.

- **Increasing M&A Activity:** As growth has slowed in certain subsectors (systems, software), leading vendors have utilized M&A for growth, offering customers a one stop shop proposition (i.e. HP/Compaq, Oracle/Peoplesoft)

- **Co-opetition**: Leading vendors co-exist as competitors and collaborators. This is a key characteristic of the industry and has become even more so as players move into adjacent subsectors. Examples include: Microsoft/Intel, Oracle/IBM

Drivers

Revenue

- Online and retail sales
- License/maintenance versus subscription service model

Key Metric(s): Renewal Rate

The customer base has changed in the past couple of years: regular consumers are interested more in simple friendly software rather than sophisticated do-it-all software, and businesses are worried that constant innovation will harm their competitiveness if they commit to the wrong software, and are interested more in "renting" a dynamic software rather than buying a product that requires high implementation costs.

Therefore, the software industry focuses on the 2 "extremes": the relatively low-tech customers and ultra-sophisticated ones.

Cost

The biggest cost software companies traditionally faced was related to the development of the products. In the past, the huge allure of the software industry was its relatively low operational costs once the product has been developed, and such costs have shrunk even more in the last few years due to online distribution. However, piracy has plagued most of the software industry and increased the cost of protecting the companies' intellectual property.

Hardware and Digital Devices

Overview

Summary	Industry consists of companies engaged in assembling and manufacturing computers, computer hardware and computer peripherals, including storage devices, keyboards, printers, monitors, mouse and other pointing devices, Webcams and PC cameras. **Industry Structure** **Total Revenues:** $842.1 B **Industry Leader in Revenues:** Apple ($156.5 B)
Major Players	Apple, Samsung, Google, AMD, Intel
Stakeholders	N/A
Products	• Desktop / Laptop computers • Peripherals / Accessories
Customers	**Relevant splits:** • **By size**: Enterprise, SMB (small/medium businesses), Retail • **By type:** Business vs. consumer
Comp. Landscape	• **Price:** Differentiate by selling at low prices and relying on complementary products • **Features:** Increase consumer benefit through innovation and features.
Channels	**Business/Enterprise-focused**: Direct sales force. **SMB/Retail:** Indirect channels (physical / virtual)

Trends

- **Mobile Computing:** During the last decade, we experienced a major shift from desktop computing to computing-on-the-go, mainly due to growing popularity of smartphones and the emergence of tablet computers (see below). Cloud computing reduced the need for physical storage, while constant improvement in speed and reliability of mobile internet connectivity allow consumers to communicate, work and play anytime and anywhere. The recent growth also led to increased revenue by component manufacturers (ARM, Broadcom, Samsung) and demand for online services. Tablets and smartphones are estimated to have cannibalized more than 20% of the computer industry.
- **Tablet Wars** Despite continuous dominance by the iPad (50.4% market share), industry behemoths such as Microsoft (Surface), Google (Nexus), Amazon (Kindle) fiercely compete over the tablet industry, though most profits do not come from units sold but from complementary products (such as apps and cases)

Drivers

Revenue

Companies seek to add revenue streams to their business

- **App and digital content** stores for **Smartphones** and **Tablets**
- **Advertising** through mobile apps
- **Collaboration** with peripheral product manufacturers (such as keyboards, casing, headphones and audio systems) and with mobile telecommunications companies.

Customer base is very broad, not limited solely to ultra-techy consumers, but also to sophisticated business people and consumers with low-to-intermediate level of technical experience

Cost

The hardware industry relies heavily on component manufacturers, which are exposed to variance in material prices), environmental regulation, and cost of labor (as most manufacturing is done in developing countries). Hardware companies are also required to invest heavily in R&D.

Online Services and Storage

Overview		Trends	Drivers
Summary	Industry consists of companies that provide virtual-environment services and products, including data search, cloud data storage, social networking, big data analytics, music and video streaming, e-Stores (fashion, media, etc.), news and gaming. **Industry Structure** Total Revenues: ~$1.8Trillion Industry Leader in Revenues: Google ($29.3 Billion)	• **Cloud Computing:** A wide variety of service providers are battling over the right to provide consumers with free cloud based services, most notably storage (DropBox, Google Drive, Amazon Cloud Drive), productivity (Google Docs, Microsoft Office Live), CRM (Salesforce) and professional services (Quickbase, Bill.com). • **Big Data**: The huge amount of information out there serves not only as an opportunity for companies to study, analyze and predict market trends, but also as an essential tool for survival. • **Cyber Security:** Both in the private sector, where many have already entrusted the web with their most intimate information, including bank accounts, emails or work, and in the more global aspect, cyber warfare, spying and intelligence gathering have all increased the need for highly developed cyber security services, to protect both corporate secrets and peoples' lives. • **Mobile:** Rise of mobile as primary channel of consumption; entrance of multiple players into mobile space via physical platforms (Amazon.com / phone) or virtual platforms (Google / Android) • **Massive growth in FC**: Together, Apple, Amazon, Facebook, Google and Twitter invested $66 billion in the past 12 months. This figure includes capital spending, research and development, fixed assets acquired with leases and cash used for acquisitions. These five tech firms now invest more than any single company in the world: more than such energy Leviathans as Gazprom, PetroChina and Exxon, which each invest about $40 billion-50 billion a year. The five firms together own $60 billion of property and equipment, almost as much as General Electric. They employ just over 300,000 people.	**Revenue** • In the consumer market, most services are given for free, where most revenues come from advertising and data collection. • Some services/products are given for a subscription fee, and some (usually e-retailers) usually come from direct sales. • In the business sector, the ability to provide expertise to increase value for clients, where many companies are quickly transitioning themselves from conventional services firms into "one-stop-shop" firms, mostly among consulting companies, accounting firms and technology firms, allow such companies to charge service fees. • Customer base is very broad, i.e. not limited solely to ultra-techy consumers, but also to sophisticated business people, organizations and consumers with low-to-intermediate level of technical experience. • **Key Metric(s):** Revenue / click **Cost** • The online industry relies heavily on innovation (a large portion of which comes from M&As of startup companies), customer relations and IT infrastructure.
Major Players	Apple, Amazon, Facebook, Google and Twitter		
Stakeholders	N/A		
Products	• Search, Data Storage, Social Networking, Analytics, Music + Video Streaming, e-Retail, News, Gaming, • Services		
Customers	Relevant splits: • **By size:** Enterprise, SMB (small/medium businesses), Retail • **By type:** Business vs. consumer		
Comp. Landscape	• **Innovation:** companies try to differentiate themselves by investing heavily in innovation, or "the next big thing", such as YouTube, Facebook or eBay, most of which are monopolies in their own specific market. • **In the consumer world**, major players include online services companies such as Google or DropBox, e-Retailers such as Amazon and Gilt, entertainment providers such as NetFlix and Hulu, and social networks such as Facebook and Twitter. In the business arena, companies such as IBM, McKinsey, Accenture and other professional services companies are taking the lead.		
Channels	**Business/Enterprise-focused**: Direct sales force. **SMB/Retail: I**ndirect channels (physical / virtual)		

Media and Entertainment

Overview

Summary	• Media and entertainment companies create, license and / or distribute content. Traditionally, media players compete for audience interest in order to generate more ad revenue. • The industry has long been known for conglomeration; developing and acquiring multiple brands and multiple distribution channels for their dissemination **Industry Structure** **Total:** Global revenues of $1.5 T **Consumer / End-User Spend:** $1 T **Advertising Spend:** $500 B • The leading 10 companies in the industry account for 33% of Revenue • Includes some cable, telecom, hardware, software and internet spend which is hard to split from "content" • Other national or regional conglomerates and digital startups comprise remaining revenue
Major Players	Disney, WPP, ClearChannel, EMI, NY Times, News Corporation, Viacom, Time Warner, Comcast, Sony
Stakeholders	N/A
Products	TV shows, movies, music, news, video games, books, magazines, radio shows
Customers	**Traditional Models:** Advertisers **Subscription Models:** Individual Consumers
Comp. Landscape	Varies by subsector. Landscape is very competitive with a few major players owning integrated portfolios across the entire media universe (Disney, Viacom, News Corp, etc)
Channels	• **Print:** traditional paper product & online / mobile • **Television:** traditional broadcast / cable / satellite & online / mobile • **Movies:** traditional theatres, rentals & online (to a growing extent)

Trends

- **Macroeconomics:**
  Consumer and advertising spending on M&E is tied to economic growth, though some segments (cable, internet access) are resistant to downturns and / or more impacted by secular trends. Annual growth slowed in 2008 and the industry retracted by 2.4% in 2009. Growth has rebounded to ~4.5% since then.

- **Digital:**
  The biggest long-term issue for industry players is how to put content online. The internet poses a number of challenges:
  - **Lowered barriers to entry** for creating / distributing, increasing competition
  - **Increased piracy** due to high-speed connections and illegal download sites
  - **Consumer expectations** of lower priced / free content, available on-demand
  - **New intermediaries** and lack of standards (Google search, iOS vs. Android app platforms, new ad formats)
  - **Limitless advertising** inventory and less consumer attention, reducing ad prices
  - **Distribution and standing out harder** given huge libraries (Amazon books, iTunes)

Drivers

Revenue

Depending on the company's focus, the below revenue mix differs. There has been a lot of experimentation in adapting these business models to digital age:

- **Consumer / end-user:** More of a focus on **subscriptions**, multi-device access and free or "freemium" with micro-transactions
- **Advertising:** More of a focus on direct response and tying ad exposure to purchases or clicks, also use of web usage data to micro-target, raising privacy issues
- Audience reach, ratings, circulation measures are utilized to sell advertising
- **Licensing / distribution:** More focus on retransmission fees TV networks charge to cable cos. and revenue shares with online marketplaces

Cost

VC: production costs (salaries of staff, technology)
FC: capital costs (studios, printing presses); overheard, marketing & advertising

The M&E industry is **labor intensive** in terms of costs for "creative" talent and sales staffs, which can comprise 40% - 50% of costs for a company or project (one movie). **Marketing** also represents a large portion of costs, given the competition for consumer attention. **Capital investments in digital technologies** represent a newer but growing area of cost.

Energy: Oil & Gas

Overview		Trends	Drivers
Summary	Major E&P players are involved both upstream and downstream. **Upstream Steps** **1. Exploration:** Finding oil, including geological exploration, research, and purchasing/leasing land. Offshore is leased from gov't s through auctions **2. Drilling.** Companies drill exploratory wells to determine size; if satisfactory, add'l wells are developed. Overheating can cause explosions ("blowouts"). **3. Well Completion.** Post drilling, engineers put cement in the walls Steps 1-3 are often contracted out from E&P firms to firms like TransOcean. Delays are very expensive ($500k a day), and may be charged to contractors; but E&P firms make decisions **Downstream Steps** 1. Production 2. Refining 3. Marketing Liability for spills is extremely costly ($1-4k per barrel spilled, 205M gallons est. spilled)	• **New Legislation Post–BP oil spill** The industry is likely to experience major changes . • A hodgepodge of oversight agencies granted exceptions to rules, as government agencies needed to both foster and police the industry • A mix of companies is in charge of each rig, and their interests are not always in sync (see delays under overview, eg. for maintenance) • **Non-US** countries maintain their own oil standards • **State-owned oil companies** like Saudi Aramco and Petrobras are sitting on enormous oil reserves, but cannot exploit them as efficiently as public companies • **Explosive rise** in shale oil has lessened US dependence on foreign sources; contributed to massive reduction in price of oil over last 6 months.	**Revenue** • **Outside Factors:** economic environment (GDP growth), supply, consumption and demand level, oil and gas inventories. Global price also influenced by **OPEC** • **Prices** of oil, gas, and refined products are the most watched factor in energy. • **Drilling companies:** provide the rigs and operate them, either on a project or long term contract basis, with rates charged by the day (popular among offshore drilling), foot drilled, or all-inclusive basis. • **Wide range of services**, including: pressure pumping, wireline, directional drilling and measurement while drilling (MWD), and marine support • **Key metric(s):** Supply and demand of oil and natural gas, rig count, rig utilization rates, rig dayrates and daily margins **Cost** • **Upstream** - exploration and production expenditures • **Midstream** – transportation, and storage costs • **Downstream** – refining and marketing costs.
Major Players	ExxonMobil, BP, Petrobras, Transocean, Saudi Aramco, Gazprom		
Stakeholders	N/A		
Products	Oil, Gas, Refined Products Services (see Revenue Drivers)		
Customers	**B2B:** Manufact., Power / Heat Generation **B2C:** Individual Customers		
Comp. Landscape	**"Majors":** Privately owned, Western **State-owned:** Mainly non-Western		
Channels	**Retail:** Gas Stations **Wholesale:** Contract-based (contracts traded on exchanges)		

Energy: Utilities

Overview

Summary	• 95% of revenue from the generation, transmission, and distribution of Alternating Current (A/C) electricity • Steam, natural gas, and other byproducts from generation are also sold
Major Players	**Generation:** Duke Energy, Exelon, and Dominion Resources **Distribution:** American Electric Power, Exelon, PG&E, and Southern Company
Stakeholders	N/A
Products	See Summary
Customers	Industrial, Commercial, government, and residential consumers • **Prices usually highest for residential and commercial consumers** because it costs more to distribute to them • **Industrial consumers** use more, and can receive it at higher voltages (without having it stepped down)
Comp. Landscape	• **Generation:** combined revenue of $80B. Highly consolidated; the 50 largest companies earn over 85% of industry • **Transmission and Distribution:** combined annual revenue of about $260B. Highly consolidated; 50 largest companies earn over 80% of revenue
Channels	**Retail ,Wholesale** • telephone • Fewer than 1 percent of customer interactions in the utilities industry are currently made via the Internet, yet up to two-thirds could be • Slow development of connections between utility Web sites and company back ends. Such connections make it possible for consumers to do real business on a Web site, such as check or pay a bill, order new services or report a technical problem.

Trends

- **Regulations** on greenhouse gas emission likely forthcoming
- **Significant upcoming investment** in transmission network, renewable generation, smart grids, and likely nuclear generation
- **"Decoupling" of Transmission and Distribution:** Since 1990s, deregulation of transmission system; new wholesale electricity trading markets now in many regions of the country. Within "deregulated" markets, generation, transmission, and distribution carried out by separate companies. "Natural" monopolies still exist

Drivers

Revenue

- Population growth
- Economic activity
- Electricity prices
- Profitability driven largely by government regulations and fuel costs

Cost

- Variations in electricity demand
- Availability of different generation sources
- Fuel costs
- Plant availability.
- Costs to build, finance, maintain, manage and operate power plants and distribution lines.

Seasonality; i.e. costs usually highest in summer when more expensive generation is added to meet higher demand

Industrial Goods

Overview

Summary	• **Large and diverse industry** that provides products/services primarily used to produce other goods
	• **Main sectors:**
	  • Electrical Equipment and Components
	  • Industrial Automation/Heavy Machinery
	  • Construction and Engineering
	  • Aerospace & Defense

Major Players	GE, Siemens, Cummins, Boeing, Lockheed Martin, Northrop Grumman, Honeywell, Raytheon, 3M, Caterpillar, Emerson Electric, Fluor, Tyco, Waste Management
Stakeholders	N/A
Products	See Summary
Customers	**OEM** (original equipment manufacturer) – **B2B** • **Metal:** airplane, automotive, tool/die manufacturing • **Plastics:** medical industry, machinery manufacturing • **Infrastructure/Machinery:** Government, Utilities, Rail operators • **Chemicals:** pharmaceutical, process technology, semiconductor manufacturing
Comp. Landscape	• Boeing, Airbus • GE, Phillips, Siemens • Honeywell, Dow, Corning
Channels	Primarily B2B / Sales Force driven Trade Shows (air shows, etc.)

Trends

- Manufacturing is **highly cyclical** in most sectors
- **US manufacturing**, traditional strength of US economic growth, has suffered due to higher cost structure (labor in many cases) as companies outsource manufacturing to lower-cost regions of the world
- **Tighter consumer spending** has led to reduced production and stagnant growth for the industry
- Industry has seen **increasing consolidation** over the past few years
- **Emerging markets** are key for growth as they are quickly developing and increasing production capacity for a variety of goods

Drivers

Revenue

- Diversity of customers
- Volume (automotive: high, airplane manuf: low)
- Emerging markets
- Adjacent industries
- New technologies/products
- End-consumer demands

Cost

- Outsourcing (potential quality),
- Process efficiency,
- Supply chain management (inventory turns)
- Labor (unions)
- Raw materials/commodities
- Channel management (ie. Auto dealers)
- Marketing
- Capital investment

Retail

Overview

Summary	Retail trade makes up $3.8 trillion in sales (second largest US industry) • Retail industry is comprised of the following sub-industries: – General merchandise – Apparel – Consumer electronics – Home improvement – Office supplies – Drug retail – Automotive retail – Specialty – Food retail – Hypermarkets/super-centers
Major Players	WalMart, Macy's, Home Depot, CostCo
Stakeholders	N/A
Products	See Summary for product categories Services (see Trends)
Customers	**B2C**: Individual customers **B2B**: SMB (discount wholesalers)
Comp. Landscape	National v. Regional Online vs. Bricks-and-Mortar
Channels	Discount Wholesalers Big Box Stores Convenience Stores Online / Mobile

Trends

- The industry has generally been negatively impacted by the economy (discount retailers have done best)
- Due to **frequent price promotions**, lower profit margins are common in the industry
- Retailers are expanding their share of **private label brands**
- Many specialty retailers are selling services to differentiate themselves from rivals:
  - **Best Buy** – Geek Squad,
  - **Staples** – Copy Centers,
  - **Pet Smart** – Grooming and Training
- Online sales are increasing faster than traditional retail sales (currently 3-4% of retail industry revenue)

Drivers

Revenue

- **Promotions** – retailers drive traffic through price reductions and in-store displays
- **Consumer spending/confidence** – retail industry is leading indicator for economic conditions (discount retailers generally do better in bad times than specialty retailers)
- **Membership fees** (for discount wholesalers)

Costs

- **Inventory management** – critical to minimize cost, increase response times and increase profitability
- **Real Estate** – number of stores and location decisions are important given high fixed costs

Case 1: EnerForce

Introduction

Case Prompt

A U.S. energy conglomerate is considering the acquisition of a publicly traded wind turbine manufacturer, EnerForce, with manufacturing locations in China and Vietnam. Should the conglomerate acquire EnerForce?

Case Tracker

- **Led By**: Interviewer
- **Industry**: Energy
- **Level of Difficulty**: Medium
- **Case Type**: Profitability, Valuation

Fit Questions

- Provide an example of when you had to give a bad performance review.
- How do you organize and plan for a major project?
- Tell me about a time when you were pushed beyond your comfort zone. How did you handle the situation?

Guide To Interviewer

This case is an interviewer led profitability, valuation and strategy case. The interviewer should take charge with the questions that follow after the candidate has relayed his/her framework. The first two questions are qualitative, while the last two are quantitative. For the quantitative questions the candidate should walk through the necessary calculations in a structured manner.

A strong candidate will quickly interpret the three charts and relate key insights back to the case prompt. Additionally, such a candidate would not only relay a recommendation at the end of a case, but will brainstorm various risks associated with the recommendation.

Case 1: EnerForce

Clarifying answers and case guide

Clarifying answers to provide

- 1 GW = 1,000,000 KW

Guide to case / Guide to handouts

In this case, most of the background information is provided through the exhibits.

Exhibits 1,2 and 3 are provided along with Question #2.

For Question #3:
- Please note that assumptions for market share should be consistent with the # of competitors in each market based on Exhibit #2, the interviewer should push back if the candidate's market share assumptions do not align with the information in Exhibit #2
- If the interview is running over allotted time, the interviewer can choose to give the candidate the market share information in the sample response

For Question #4:
- It's ok for candidate to assume perpetuity to do the valuation

Case 1: EnerForce

Key elements to analyze

Question #1

When advising on the potential acquisition, which pieces of information would you look to acquire/review? Where would you find these pieces of information?

Notes to Interviewer

Response can include the following and interviewer should probe the candidate to relay as comprehensive a list as possible. Strong candidates will structure their brainstorming in mutually exclusive and collectively exhaustive categories:

Company Information

Financials

- Past profitability (from financial statements)
- Financial health of the target (from financial statements)
- Revenue and cost breakdown by product (may not be available but could ask market experts)

Operations

- Current product range (from customers and/or target website)
- Target's customer list (from target testimonials or may be public information for utility customers)
- Location of target's plants (most likely public information)
- If target is sought by competitors (may not be available but prior bids may have been made public)
- Supply chain (may not be available but client may share some suppliers)

Market Information

- Market conditions (from market experts)
- Tariffs on exports (from government websites)
- Technological specifications (from market experts)
- Customer preferences (from market experts)
- Competitors and their market shares (from market experts or industry reports)

Case 1: EnerForce

Key elements to analyze

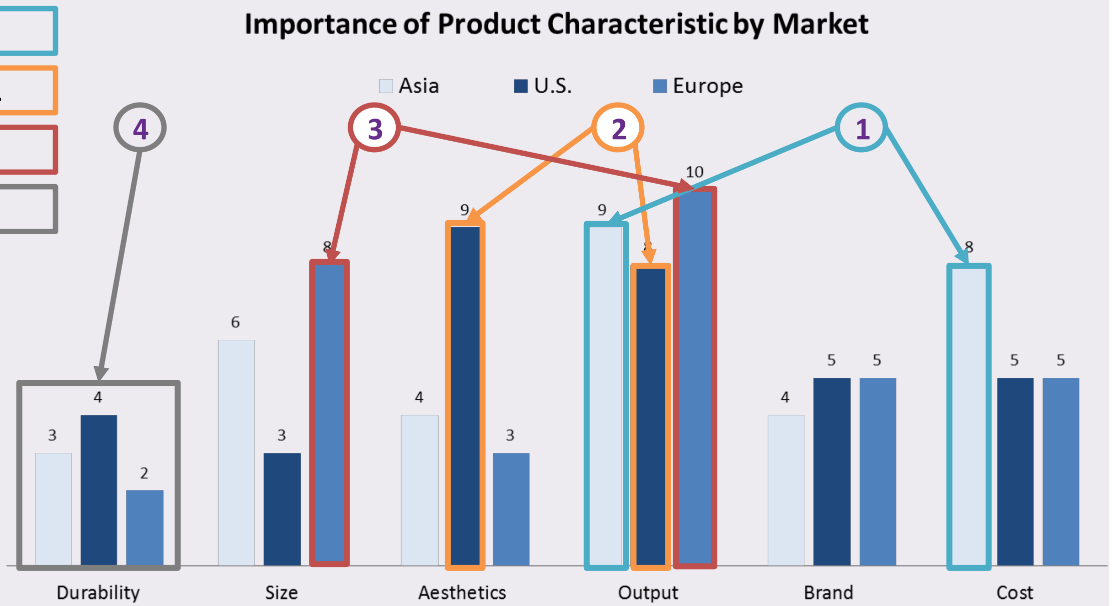
Question #2

Can you walk me through the following three charts? What market would you suggest is most attractive for EnerForce's upcoming product, the EnerForce 100 KW Turbine, in the next year? (Show candidate Exhibits 1,2 and 3 at the same time)

Notes to Interviewer

Exhibit 1 analysis:

1. Output and costs are important to Asia
2. Aesthetics and output are important to the U.S.
3. Size and output are important to Europe
4. Durability isn't really important to any market



Case 1: EnerForce

Key elements to analyze

Notes to Interviewer (contd.)

Exhibit 2 analysis:

- Based on what we know about preferences (Chart 1) and ranking on key attributes against competitors (Chart 2), EnerForce's turbine is suitable for both the U.S. and Europe markets
- It is not comparable to competitors in the Asian market
- This could mean that there are competitors in Asia which are not yet in Europe. These competitors could threaten EnerForce if they enter

Market	# of Total Competitors	Industry Rank – 100 KW EnerForce Turbine					
		Durability	Size	Aesthetics	Output	Brand	Cost
Asia	9	#2	#6	#7	#4	#7	#7
US	4	#2	#3	#2	#1	#4	#4
Europe	6	#3	#1	#6	#2	#3	#3

Exhibit 3 analysis:

- U.S. and Europe are the biggest markets currently
- U.S. market becomes biggest next year due to growth rates

Market	Incremental Yearly Demand (GW)	Projected Annual Growth Rate	Next Year's Incremental Demand
Asia	4.5	2%	4.5*1.02 = 4.59
U.S.	5	9%	5.0 *1.09 = 5.45
Europe	6	-13%	6.0*0.87 = 5.22

Case 1: EnerForce

Key elements to analyze

Question #3

How many units would you predict EnerForce could sell in each of the three markets? Please clearly state your assumptions.

Notes to Interviewer

To calculate Enerforce's sales, we will multiply the number of turbines needed in each market next year by the projected market share in each market. If we do not have market share information, we can deduce it from a combination of Exhibits 1 and 2.

# of incremental turbines in each market next year × EnerForce market share in target market = Expected EnerForce turbine sales next year

↑

(# of turbines in each market this year × Market growth rate)

↑

(Demand (GW) × GW / KW (1,000,000) ÷ KW / Turbine (100))

Market	Demand (GW)	GW / KW	KW / Turbine	# of turbines in market this year	Market growth rate	# of turbines in market next year	Assumed market share	Expected EnerForce turbine sales next year
Asia	4.5	1,000,000	100	45,000	2%	45,900	10%	4,590
U.S.	5	1,000,000	100	50,000	9%	54,500	50%	27,250
Europe	6	1,000,000	100	60,000	3%	52,200	40%	20,880

Case 1: EnerForce

Key elements to analyze/Math Question

Question #4

Assume plant capacity in China of 2,000 turbines/year and in Vietnam of 3,000 turbines/year, price per turbine of $100K, and 15% profit margin. Assume a 10% discount rate. Should EnerForce be acquired for a price of $700M?

Notes to Interviewer

- Assuming the capacity of both plants is maximized, production would be 5,000 turbines/year. Let's assume EnerForce is able to sell all 5,000 turbines/year. We would need to multiply this by $100K to derive sales revenue. Sales revenue multiplied by the 15% profit margin would give us profit/year. Profit/year divided by the discount rate would give us the projected valuation of EnerForce (assuming this is their only product)
    - 5,000 turbines/year * $100k turbine = $500M/year
    - $500M/year * 15% profit margin = $75M/year
    - $75M/10% discount rate = $750M value price
    - Acquisition go/no go should be determined via whether the asking price for EnerForce is higher or lower than the derived valuation

Price / turbine	×	# of turbines sold	=	EnerForce revenue
EnerForce revenue	×	Profit margin	=	EnerForce profit
EnerForce profit	÷	Discount rate	=	EnerForce valuation*

*assuming perpetuity

Case 1: EnerForce

Solution and Recommendations

Recommendations

Acquire EnerForce given a valuation of $750M and a price of $700M although an understanding of EnerForce's other products (if any) and assets is most likely necessary prior to acquisition.

Risks

- **Competitive response:** already saw that competitors in Chinese market entering other markets could be a serious threat
- **Country specific costs**: to reach 5,000/turbines a year would need access to US or Europe; there could be tariffs or there could be quotas in these countries
- **Customers**: there might not be support in U.S. and Europe for renewables due to the indebtedness of Western governments
- **Technology**: competitors could develop technology to make EnerForce products obsolete rendering the acquisition overvalued due to the assumption of perpetuity

Next Steps

- Further understand EnerForce's other products and assets
- Investigate competitive landscape in more detail, with a focus on the competitors in China

Bonus / Guide to an Excellent Case

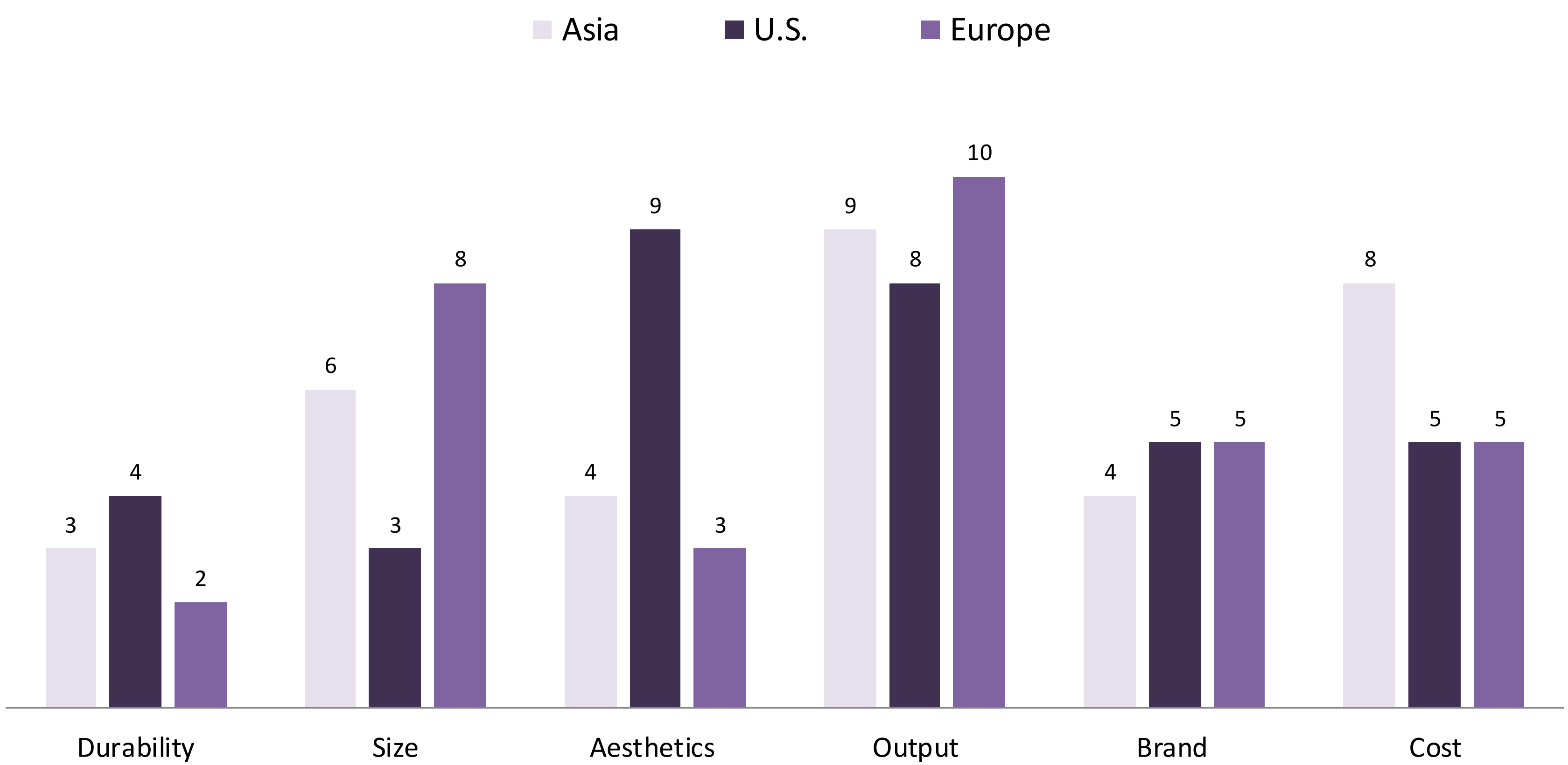
- Strong candidates will identify that there are competitors in China which may not currently be in the U.S. and European markets and that these competitors represent a significant long-term threat
- Other threats associated with the acquisition should also be mentioned by a superior candidate at the end of the case

Case 1: EnerForce

Exhibit #1 (to be handed to the candidate)

Exhibit #1: Customer Survey

Importance of Product Characteristic by Market



Case 1: EnerForce

Exhibit #2 (to be handed to the candidate)

Exhibit #2: Competitive Landscape

Market	# of Total Competitors	Industry Rank – 100 KW EnerForce Turbine					
		Durability	Size	Aesthetics	Output	Brand	Cost
Asia	9	#2	#6	#7	#4	#7	#7
US	4	#2	#3	#2	#1	#4	#4
Europe	6	#3	#1	#6	#2	#3	#3

Case 1: EnerForce

Exhibit #3 (to be handed to the candidate)

Exhibit #3: Market Size and Growth

Market	Incremental Yearly Demand (GW)	Projected Annual Growth Rate
Asia	4.5	2%
U.S.	5	9%
Europe	6	-13%

Case 2: Drug Profitability

Introduction

Case Prompt

Our client is a pharmaceutical company that has developed a remedy for female balding. The drug has cleared a lengthy and delayed testing process. The drug will be off patent in five years. Before initiating drug production, the client wants us to determine whether the drug will be profitable and whether or not to go ahead with production.

Case Tracker

- **Led By**: Candidate
- **Industry**: Pharma
- **Level of Difficulty**: Hard
- **Case Type**: Market Sizing, New Product Launch

Fit Questions

- Describe the last mistake you made on the job.
- What would you like me to know about you that is not on your resume?
- Give me an example of how you would motivate a co-worker who was performing poorly on a team project.

Guide To Interviewer

This is a candidate led go/no go case based on profitability followed by development of a launch strategy. The candidate will be required to make several assumptions, based on little input, in order to estimate the potential market size.

After the candidate has made a go/no go recommendation, he or she will then be asked to review market research related to two possible versions of the product and recommend a launch strategy. For the launch strategy, the candidate needs only make a recommendation about which formulations to launch and should not revisit other aspects of the case.

Case 2: Drug Profitability

Clarifying answers and case guide

Clarifying answers to provide

Market:
- One comparable substitute currently exists that will divide market share equally with client once client's drug is in market
- Post-patent expiry client's share will shrink to 20% of share pre-patent expiry
- No information on current market size – ask candidate to size the overall market and the client's market share

Product:
- Assume that the price of the product is comparable to the substitute at $2,000/treatment, and that one treatment is needed per year
- Average woman starts balding at age 40 and between the ages of 30-40 the drug has some preventative benefits
- Starting at 60, even the most effective drugs cannot remedy female balding
- Assume that our drug and current comparable substitute have no comparative advantage over the other (both will charge the same price and split the market)
- Payment for the product is not covered by most health insurance plans

Costs:
- $ spent on testing: $8B (The interviewer should let the candidate know that the $8B spent on testing is a sunk cost if this item is missed during analysis)
- Production: $1B/year
- Marketing and sales efforts: $2.5B/year
- Distribution: $800M/year

Guide to case

- The interviewer should direct the candidate to spend more time on revenue than cost.
- A good candidate will approach the market-sizing exercise by looking at both the demand for the product and product affordability.
- The assumptions are more important than the final values, and the interviewer should challenge the candidate to justify the assumptions made.
- Provide Exhibit #1 for Question #2

Case 2: Drug Profitability

Key elements to analyze

Question #1: Market Sizing

Notes to Interviewer

- U.S. population ~ 320 M, while females make up roughly 50% or 160 M of this population
- Not all women will have the same interest for our product. With a life expectancy of 80 years, let's say that women aged 40-80 are largely at risk of balding, with roughly 60% of women in this group interested in our drug
- Let's revise that to be 60% of women between 40 and 60 and 0% of women between 60 and 80 years of age are interested in our drug (if candidate doesn't ask, inform him of the relevant fact stated in the 'information' section of this case)
- Additionally assume that 40% of women between 30 and 40 are also interested in the drug for prevention
- Assumption: each 10 year age bracket is evenly distributed

320M US population

×

50% % women

=

160M US female population

Age bracket	Population	% interested	# interested
0 - 10	20	0	0
10 - 20	20	0	0
20 - 30	20	0	0
30 - 40	20	40	8
40 - 50	20	60	12
50 - 60	20	60	12
60 - 70	20	0	0
70 - 80	20	0	0
Total	160 M		32 M

Case 2: Drug Profitability

Key elements to analyze

Notes to Interviewer (contd.)

- 32 M seems a little high, this is likely because the estimate of the % interested should be revised down. Let's say that 20% of women aged 30-40 and 30% of women aged 40-60 are interested; this would mean that a total of 16 M women are interested in the product
- With a price tag of $2,000/treatment, not all of those that are interested in the drug will be able to buy it
- I am going to assume that 60% of the population is middle class while the remainder is evenly distributed
- In terms of affordability, I will assume that 100% of the upper bracket can buy the drug, 30% of the middle bracket, and 0% of the lower bracket

Interested population

16M

Income bracket	% total	Interested Population	% able to pay	# able to pay
Low	20	3	0	0
Middle	60	10	30	3
Upper	20	3	100	3
Total		16 M		6 M

- Given that we will split this market evenly with the comparable substitute, the target population is about 3M
- Expected annual revenue is therefore about $6B pre-patent expiry
- Given that the market share will shrink to 20% after patent expiry, our client will earn roughly $1.2B/year at the current price post-expiry
- Since testing is a sunk cost, total yearly cost is about $4.3B Given these assumptions, the drug is only profitable pre-patent expiry (assuming constant market sizing and costs)

Key takeaway: The drug is profitable pre-patent expiration but may not be so after patent expires (post-patent profitability being positive will depend on market sizing and costs)

Case 2: Drug Profitability

Solution and Recommendation for Question #1

Recommendations

- Given our assumptions, client should pursue drug production for next five years if the market size allows it to be profitable
- Drug will become less profitable after patent expiry and decision on whether drug production should continue will be determined by the market size and profitability estimation

Risks

- Estimated marketing costs may not be adequate to educate customers regarding the existence of this product
- Analysis needs to factor in the competitive response of the comparable product that exists in market today, particularly if the product has a lower cost structure, and can therefore be sold at a lower price
- If the competitor's product goes off-patent in under 5 years, the client's drug will likely lose market share or be forced to lower the price
- Given that the market appears very attractive and the need is relatively unmet (only 2 products), other products might enter the market

Next Steps/Comments

- The client can continue production after patent expiry if they can lower price to gain market share profitably
- May be worthwhile to look at international markets where testing in the U.S. would be readily accepted, or other U.S. market segments (e.g., men, hair regrowth)

Bonus / Guide to an Excellent Case

- A superior candidate will bring in other relevant dimensions of market sizing such as consumer awareness or pricing of the product, and will also evaluate to what degree his or her final estimates are reasonable
- A superior candidate will immediately catch that the $8B spent on testing is a sunk cost. Additionally, a superior candidate will recognize that expenses will vary substantially over the lifecycle of the product, and that market share and price can be impacted by a strong competitor response

Case 2: Drug Profitability

Key elements to analyze

Question #2

Based on the results from clinical trials, the client received approval for the product in two different formulations:

- Formulation 1:
  - Once-daily application
  - Less effective
  - Lower price
- Formulation 2:
  - Twice-daily application
  - Most effective
  - Higher price

The client conducted market research among customers of different ages. Using the results of this research, formulate a market entry strategy and recommend which formulation the client should launch.

Case 2: Drug Profitability

Key elements to analyze

Notes to Interviewer

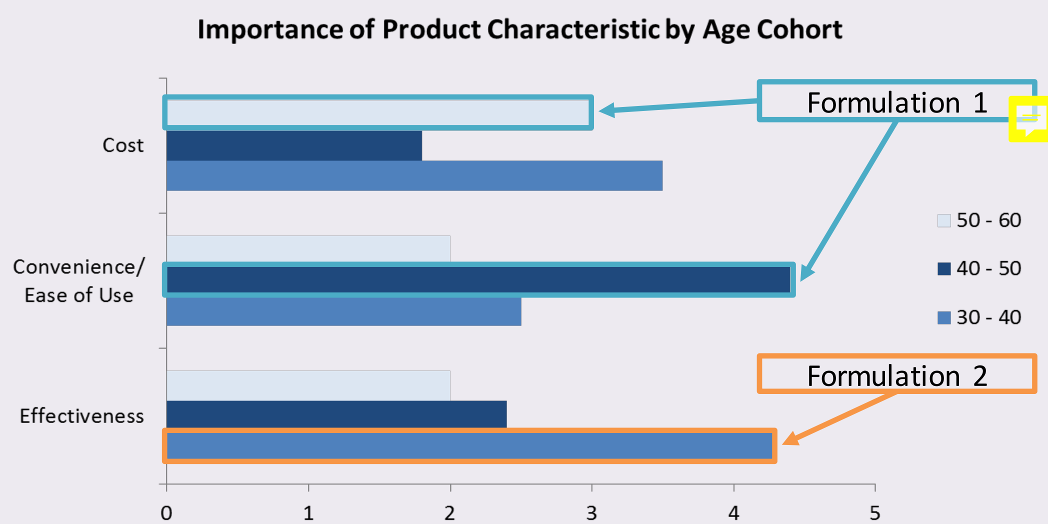
- There is no single right answer; candidates should interpret the graph to match the different formulations to the correct customer segments, and then decide on a strategy, indicating rationale and potential risks
  - Formulation 1 appears better suited to customers aged 40-50 and 50-60, because of their focus on convenience and cost
  - Formulation 2 would be preferable for customers aged 30-40, whose focus is on effectiveness

Formulation 1

- The older demographic form a larger potential market
- The older demographic has a smaller lifetime value

Formulation 2

- Conversely, younger consumers may use the product over a longer period of time resulting in greater lifetime value
- The younger demographic forms a smaller potential market



Case 2: Drug Profitability

Solution and Recommendations for Question #2

Recommendations

- Given that primary market for this product will be women aged 40+, the client should produce formulation A
- The product branding strategy should focus on once-a-day convenience, and be marketed primarily to women aged 40-50
- The client should not pursue both formulations at launch, as this might confuse branding to customers and divide limited marketing resources

Risks

- There is a large difference in price-sensitivity between ages 40-50 and 50-60
- This strategy may cause the client to lose out on a segment of the population which is younger and would be willing to pay more for better results

Next Steps

- For launch, need to look into if the product should be launched in certain geographies or markets first ('soft launch')
- Start working on marketing plans and training the sales-force

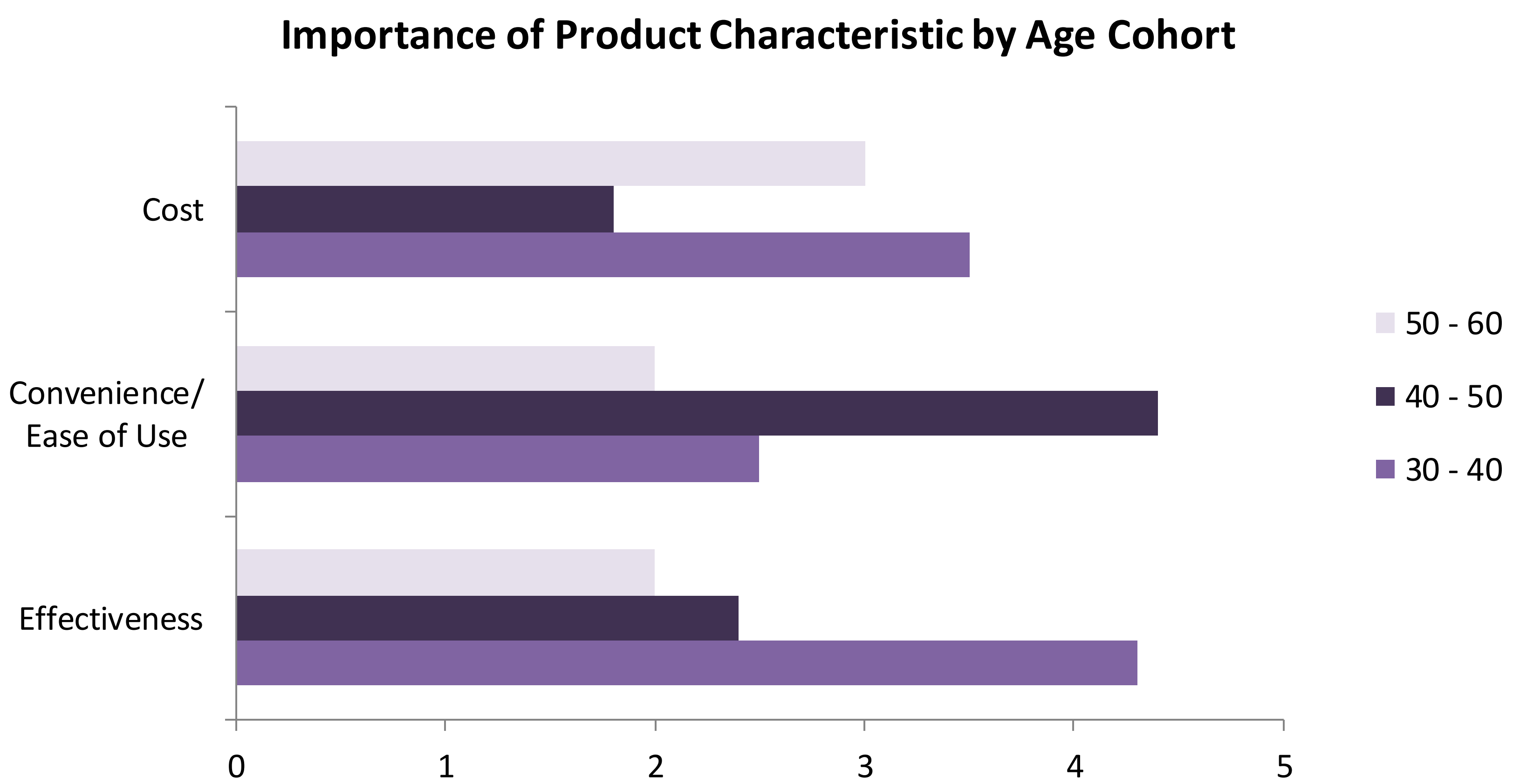
Bonus / Guide to an Excellent Case

- Candidate may suggest other additional recommendation such as "Post-launch, once the brand has a solid base, the client may want to consider launching the second formulation as a "premium" or "extra-strength" alternative, offered at a mark-up"

Case 2: Drug Profitability

Exhibit #1 (to be handed to the candidate)

Exhibit #1: Customer Survey



Case 3: Regional Jet Market

Introduction

Case Prompt

While the market for long-haul jet manufacturers is a duopoly between Boeing and Airbus, the market for regional jet manufacturers is currently a duopoly between Bombardier of Canada and Embraer of Brazil. However, the market appears to be in for a period of transition due to at least two new entrants, Competitor "R" of Russia and Competitor "C" of China.

What do you think will happen to the international market for regional jet manufacturers in the next five years?

Case Tracker

- **Led By**: Interviewer
- **Industry**: Airlines
- **Level of Difficulty**: Medium
- **Case Type**: Industry analysis

Fit Questions

- Tell me about a situation where you were on a high-performing team. Please describe the dynamics and how you contributed.
- What are the last three books or articles you read?

Guide To Interviewer

This case is an interviewer led current and future "state of the industry" case.

The interviewer should take charge with the questions that follow once the candidate relays his or her framework. The interviewer should provide the candidate with all the charts at once.

The candidate should pick and choose the charts that are relevant to answer each question.

This case ends with the final question and there is no need to ask for a final recommendation.

Case 3: Regional Jet Market

Clarifying answers and case guide

Clarifying answers to provide	Guide to case / Guide to handouts
	A strong candidate will be able to swiftly pick the information from charts that is required to respond to the various questions. If the candidate is taking too long the interviewer can refer the candidate to the specific chart that contains the required information.

Case 3: Regional Jet Market

Key elements to analyze

Question #1

What advantages and disadvantages would you expect Russian and Chinese jet manufacturers to have compared to their competitors?

Notes to Interviewer

Response can include the following (below).

Interviewer should probe the candidate to go beyond these lists. Interviewer should be looking for the candidate's ability to draw on his/her general business acumen to develop these lists.

Additionally the candidate should put some structure to the response. A basic structure is to talk through advantages first, and then move to disadvantages.

Advantages

- State backing
- Lower cost of production
- Access to home markets which may be growing faster than developed markets

Disadvantages

- Poorer reputation for safety
- Trouble with certification in developed countries
- Lack of R & D strength

Case 3: Regional Jet Market

Key elements to analyze

Question #2

What is the CAGR for demand in the overall market between 2013 and 2016?

Notes to Interviewer

- Candidate should use Exhibit 1
- Candidate does not need to do out the math but interviewer should make sure the problem is set up correctly by candidate
- CAGR is ((Ending Value/ Beginning Value)^(1/# of years)) - 1
- Calculation
  - 260/185 = 1.405
  - 1.405 ^ .333 = 1.12
  - 1.12 – 1 = 0.12
  - CAGR is approximately 12%

	2013	2014	2015	2016	2017
Bombardier	100	100	100	100	100
Embraer	90	90	90	90	90
R	60	60	60	60	60
C	100	100	100	100	100
	185			260	

<u>Problem set-up</u>

$$\left(\frac{\boxed{\text{Total Jets 2016}}}{\boxed{\text{Total Jets 2013}}}\right)^{\left(1/\boxed{\text{\# of years}}\right)} - 1 = \boxed{\text{CAGR}}$$

260 / 185, # of years = 3, CAGR = .12

Case 3: Regional Jet Market

Key elements to analyze

Question #3

What is the expected cost per plane for each manufacturer in 2014?

Notes to Interviewer

- Candidate should use Exhibits #1, #2, and #3
- Candidate should recognize that labor and parts are variable costs and should be allocated as a % of full capacity
- SG&A and Advertising should be fully allocated
- Candidate should recognize that a manufacturer cannot produce more than its capacity

Variables		Source (given in case unless stated)	Bombardier	Embraer	R	C
Labor	VC	(demand)/(capacity) x (Cost)	1.0	0.5	0.6	0.15
Parts		(demand)/(capacity) x (Cost)	1.5	1.0	0.4	0.1
SG&A	FC	Copied from Exhibit #3	1.2	1.2	0.5	0.75
Advertising		Coped from Exhibit #3	1.3	1.05	0.9	1.0
Total Cost ($B)		**(labor) + (parts) + (SG&A) + (advertising)**	**5.0**	**3.75**	**2.4**	**2.0**
Cost per plane ($B)		**(total cost)/(annual demand)**	**0.05**	**0.05**	**0.06**	**0.1**

Case 3: Regional Jet Market

Key elements to analyze

Question #4

What is the expected cost per plane for each manufacturer in 2017?

Notes to Interviewer

- Candidate should use Exhibits #1, #2, and #3
- The candidate should sum up cost at full capacity for each manufacturer (Exhibit #3)
- The candidate should then divide this by the number of planes at capacity (Exhibit #1) to obtain cost per plane

Variables	Source (given in case unless stated)	Bombardier	Embraer	R	C
Labor	VC (demand)/(capacity) x (Cost)	1.0	0.6	0.75	0.375
Parts	(demand)/(capacity) x (Cost)	1.5	1.2	0.5	0.25
SG&A	FC Copied from Exhibit #3	1.2	1.2	0.5	0.75
Advertising	Coped from Exhibit #3	1.3	1.05	0.9	1.0
Total Cost ($B)	**(labor) + (parts) + (SG&A) + (advertising)**	**5.0**	**4.05**	**2.65**	**2.375**
Cost per plane ($B)	**(total cost)/(annual demand)**	**0.05**	**0.045**	**0.053**	**0.0475**

Case 3: Regional Jet Market

Key elements to analyze

Question #5

What can you interpret from the current and future cost per plane of the Chinese and Russian competitors?

Question #6

Assume you are advising Bombardier. They are considering entering the larger long-haul jet market to fuel bottom-line growth. What are the risks with this strategy?

Question #7

What do you see being the drivers of demand for future growth in the airline manufacturing industry?

Notes to Interviewer

- Currently, the new entrants cannot compete on a cost per plane basis due to a lock of demand necessary to sufficiently amortize fixed costs
- It may be possible that their governments are providing subsidies and tax breaks that are not being taken into account
- By 2017, their cost per plane is much more in line with the current market conditions

Notes to Interviewer

- Saturated market
- Need to develop different technology
- Competitive response (perhaps Airbus or Boeing enter regional jet market)
- Capacity constraints

Notes to Interviewer

New Technology:
- Fuel efficiency
- Range
- Safety

New Regulations:
- Existing planes are retired quicker
- Environmental regulations
- Subsidies to make any part of the air travel value chain cheaper
- Subsidies for airplane manufacturing

New Demand:
- Customers from emerging countries having more disposable income
- Increase in the price of substitutes such as trains
- General economic growth causing more consumption from developed countries

Case 3: Regional Jet Market

Exhibit #1 (to be handed to the candidate)

Exhibit #1: Capacity (# of jets)

	2013	2014	2015	2016	2017
Bombardier	100	100	100	100	100
Embraer	90	90	90	90	90
R	60	60	60	60	60
C	100	100	100	100	100

Case 3: Regional Jet Market

Exhibit #2 (to be handed to the candidate)

Exhibit #2: Projected Annual Demand (# of jets)

	2013	2014	2015	2016	2017
Bombardier	100	105	105	100	100
Embraer	70	75	85	75	90
R	5	40	50	50	50
C	10	20	30	35	50

Case 3: Regional Jet Market

Exhibit #3 (to be handed to the candidate)

Exhibit #3: Cost Breakdown ($B)

Cost breakdown at full capacity	Bombardier	Embraer	R	C
Labor	1.0	0.6	0.9	0.75
Parts	1.5	1.2	0.6	0.5
SG&A	1.2	1.2	0.5	0.75
Advertising	1.3	1.05	0.9	1.0
Total	5.00	4.05	2.40	3.00

Case 4: BankCo Online Banking

Introduction

Case Prompt

- Our client is BankCoCard, a US credit card subsidiary of the major international bank BankCo. They have a rapidly growing $16 billion credit card portfolio. BankCoCard is interested in lowering their cost of funds for their credit card program by starting an online bank.
- BankCoCard would like to know if they should start an online bank and if so, should they launch a savings or a checking account for their new online bank.

Case Tracker

- **Led By**: Interviewer
- **Industry**: Consumer Banking
- **Level of Difficulty**: Hard
- **Case Type**: Profitability

Fit Questions

- Tell me about a time you took an initiative and failed.
- How would you describe the ideal leader?
- What role do you typically play on a team?

Guide To Interviewer

This is a interviewer led case. It is important to do the case in the proper order.

State the information above and allow the candidate to design a framework.

Next ask the candidate brainstorming questions.

Finally, the candidate should calculate the account level profitability and market size.

Case 4: BankCo Online Banking

Clarifying answers and case guide

Clarifying answers to provide

- BankCoCard wants to launch both a savings and checking account, but their budget only allows for the IT team to build one product this year
- Whichever product is not selected will be launched the following year

- The savings and checking accounts are expected to take the same time to build and will cost the same amount to build: $10 million
- The current cost of funds is 4% for the credit card portfolio
- Interest rates are not expected to change for the next several years
- Assume all deposits can be lent, no reserves are required

- The online bank will only operate within the US

Guide to case / Guide to handouts

<u>Brainstorming</u>

- Ask all of the questions in the "Key elements to analyze" section.
- These questions are a brainstorming exercise covering product launch, revenues & costs, and account acquisition

<u>Math Question 1:</u>

- The online bank will lend the deposits to the credit card portfolio at a 3% interest rate.
- What is the lifetime profit of a single checking account verses a savings account?
- Provide the candidate Exhibit #1.

<u>Math Question 2:</u>

- Calculate the total lifetime profit of accounts opened in the first year.
- Provide the candidate Exhibit #2.
- After total profit is calculated, ask the candidate if they are suspicious of any of the assumptions/data.

Case 4: BankCo Online Banking

Key elements to analyze

Launch Brainstorm

What upfront costs will there be to launch an online banking product?

Revenues & Costs

What are the ongoing revenues and costs of a savings account?

Additional revenues and costs of a checking account not mention in the savings list?

Account Acquisition

What are possible ways of acquiring new accounts for online banking products? (Keep asking for more until candidate has gotten 4)

Notes to Interviewer

- Infrastructure
  - Website
  - Servers
  - Call center
- Designing the product
- Training call center employees
- Marketing
- Etc.

Notes to Interviewer

Savings

Revenues: Interest from credit card portfolio
Costs: Interest paid to customer, call center, fraud, marketing, statement mailing

Checking

Revenues: Overdraft fee, account fees, interchange, ATM fee
Costs: Debit card transaction processing, ACH transaction processing, ATM reimbursement

Notes to Interviewer

- Online advertisements
- Search engine optimization
- Partnerships
- Affiliate marketing
- Cross-Sell current credit card customers
- Billboards
- Sponsor events
- Tabling at major events
- Etc.

Case 4: BankCo Online Banking

Math Question

Account Profitability Calculation

The online bank will lend the deposits to the credit card portfolio at a 3% annual interest rate. What is the lifetime profit of a single checking account verses a savings account?

Provide the candidate Exhibit #1.

[A strong candidate will try to discount the future cash flows and ask for a discount rate. Tell them that it is not necessary.]

Notes to Interviewer

Savings:
Revenue = $5,000 * 3% * 5 years = $750
Costs =($5,000 * 2% + $1.50 * 12) * 5 years + $50 = $640

Savings Lifetime profit = $750 - $640 = $110

Checking:
Revenue = ($2,000 * 3% + $20 * 10%) * 10 years = $620
Costs = $2,000 * 0% + $2.00 * 12 * 10 years + $100 = $340

Checking Lifetime profit = $620 - $340 = $280

Case 4: BankCo Online Banking

Math Question

Total Profit Calculation

Calculate the total lifetime profit of all accounts opened in the first year for both the savings and checking products. BankCo expects to capture 10% of the market for online accounts of whichever product they launch.

Provide the candidate Exhibit #2.

After total profit is calculated, ask the candidate if they are suspicious of any of the assumptions/data from the case.

Notes to Interviewer

Savings:
Accounts in First Year = 20,000,000 * 10% = 2,000,000
Savings Lifetime profit: 2,000,000 * $110 = $220,000,000

Checking:
Accounts in First Year = 15,000,000 * 10% = 1,500,000
Checking Lifetime profit: 1,500,000 * $280 = $420,000,000

Suspicious assumptions: Anything that sounds reasonable and is supported by the candidate is acceptable including, capturing 10% of market in the first year, the average deposits, life of the account, account acquisition cost, etc.

Case 4: BankCo Online Banking

Solution and Recommendations

Recommendations

- BankCoCard should start an online bank, launching the checking account in the first year and savings account in the following year
- Launch the checking product because it will generate almost twice as much lifetime profit
- The market for online checking accounts is growing faster than the market for online savings accounts

Risks

- BankCoCard could capture less than 10% of the market
- Reputation risk
- Acquisition cost could be higher than expected
- Product is not differentiated from competitors
- Regulatory risk associated with online banking

Next Steps

- Meet with regulators
- Survey potential customers to aid in product development
- Collect industry reports to confirm assumptions
- Interview industry experts
- Host focus groups
- Hire IT staff
- Design website
- Request additional budget for both products
- Build call center

Bonus / Guide to an Excellent Case

- A strong candidate will mention competitive response and time value of money / discount rate.
- A strong candidate will not only note that the checking market is growing faster, but will also attempt to calculate the CAGR. Checking CAGR is 20%, Savings CAGR is 10%.
- An especially talented candidate will recall that the objective of BankCoCard is to lower cost of funds for the credit card portfolio. They will calculate that the savings account will generate $10 billion in deposits, while the checking account will only generate $3 billion. Using that as supporting evidence, they would recommend the savings product over the checking product.

Case 4: BankCo Online Banking

Exhibit #1 (to be handed to the candidate)

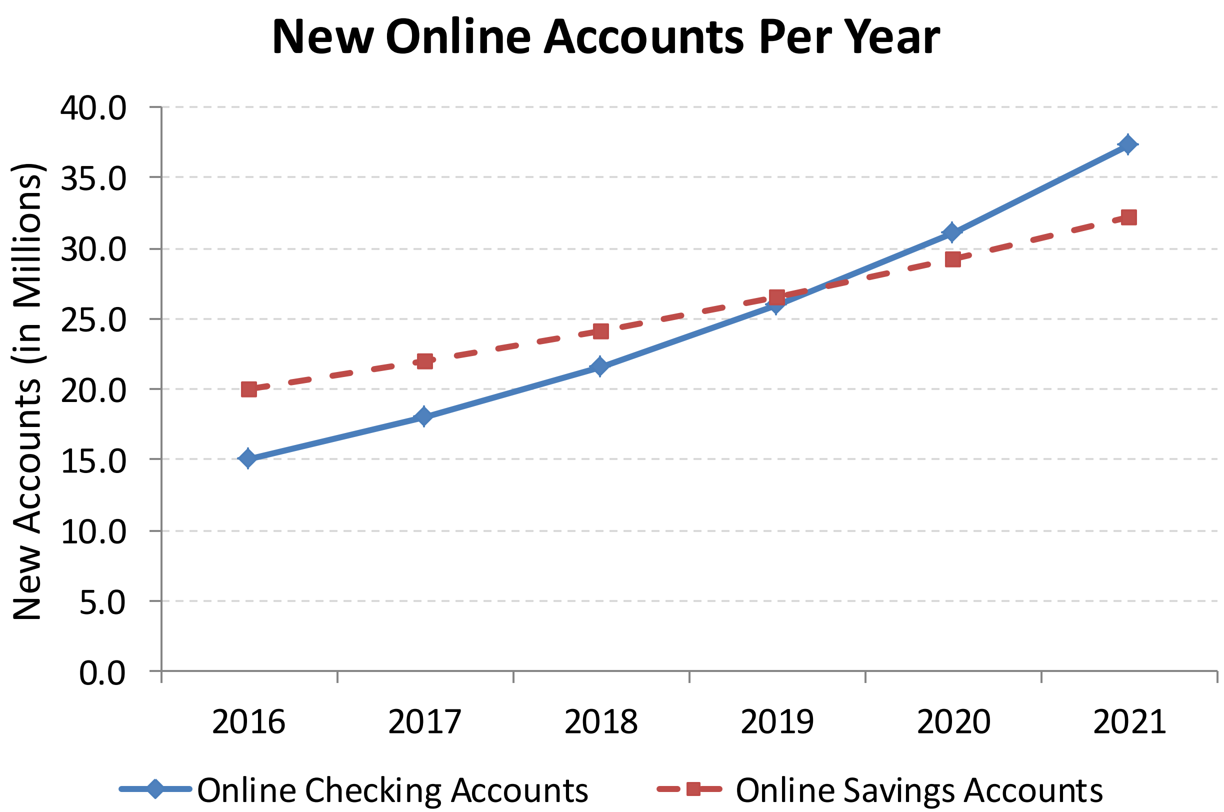
Exhibit #1: Account Info

	Checking Account	Savings Account
Average Deposits	$2,000	$5,000
Interest Received from Credit Card Portfolio	3%	3%
Interest Paid to Customers	0%	2%
Monthly Operating Expense	$2.00	$1.50
Portion of customers with Overdrafts per Year	10%	N/A
Overdraft Fee	$20	N/A
Account Acquisition Cost	$100	$50
Average Life of Account	10 years	5 years

Case 4: BankCo Online Banking

Exhibit #2 (to be handed to the candidate)

Exhibit #2: Market Info



Case 5: Made to Measure

Introduction

Case Prompt

- Our client owns a designer shoe-store that makes high end made to measure shoes for customers.
- The high-quality product has gained popularity rapidly and the client wants to ramp up production, however, the highly-skilled labor that our client employs is hard to come by.
- Our client wants us to help them figure out how to increase output without adversely affecting quality.

Case Tracker

- **Led By**: Candidate
- **Industry**: Leatherworking
- **Level of Difficulty**: Easy
- **Case Type**: Operations

Fit Questions

- Give me three examples of times you led a group.
- Tell me about a time that you took initiative to start something.
- Management Consulting is a very competitive industry. What will you do if you don't get a summer internship?

Guide To Interviewer

The case requires the candidate to explore the process involved in making the shoes. The solution lies in a change in the process, deploying resources in a more effective manner.

The interviewer should direct the candidate towards asking about the process and existing internal resources rather than external solutions.

Once the solution has been arrived at, the interviewer can move on to asking the candidate to calculate the maximum weekly output.

Case 5: Made to Measure

Clarifying answers and case guide

Clarifying answers to provide

- There are no additional skilled shoemakers available in the market
- The shoe-making process has 3 stages, cutting, stitching and finishing
- Currently there are 15 workers, each of whom take an average of 12 hours to produce one pair of shoes
- Each shoemaker performs all three steps of the process under the current system
- Different shoemakers have different skill-sets, provide the exhibit to highlight this point, prompt the candidate about this point if she/he does not arrive to it on their own
- If the candidate asks whether the process can be changed to one where shoemakers perform specific tasks, say yes

Guide to case / Guide to handouts

This case is a simple process reworking. The challenge for the candidate is to ask enough questions about the process to identify the fact that the resources (i.e. the labor) are not being utilized in an optimal manner.

The exhibit is a result of a survey and groups the different employees into groups based on their skill sets. The table provides the number of hours a group of employees takes for each task.

The key for the candidate is to identify that by getting the workers to perform specialized tasks, the average time per pair of shoes can be reduced from 12 hours to 9 hours, thereby increasing the output.

For the math question, a calculation guide has been provided for the interviewer.

Case 5: Made to Measure

Key elements to analyze

The process

Understanding the process is critical, the candidate should ask questions regarding how the shoe is made, and catch the fact that the process can be altered.

Provide Exhibit #1 when the candidate asks about the process and different activities involved.

Specialization

The candidate should be able to grasp that there is clearly a misalignment of skills and tasks, and that introducing specialization is a way to boost the output without compromising quality.

Notes to Interviewer

The interviewer should drive the focus of the discussion to the process rather than external measures by clarifying that no outside labor is available and there is currently no technology that we can use to boost output.

Notes to Interviewer

The interviewer should encourage discussion on the process and what alterations to the process are feasible and which aren’t, prompting the candidate if necessary.

Case 5: Made to Measure

Math Questions

Output Level Calculation

Once the candidate has arrived at the solution, if time permits, they should be asked to calculate the new output level, and the total new profit per week, based on the assumptions provided. Please note that this section should be explored only if time permits and the candidate has arrived at the solution.

Notes to Interviewer

The calculations are relatively straightforward, the critical part is the first step, which involves calculating the new output level. This should be done assuming that under the new system the average time taken for a pair of shoes drops from 12 hours to 9.

The per pair hours and the total available hours and the total number of employees are enough to calculate the output level, which can then be followed by the cost calculations. Please refer to the calculation guide after the exhibit.

Math Information

Employees work 9 hours a day, 5 days a week

Price : $300/pair

Material cost: $ 40/pair
Shipping: $ 10/pair
Employee wages: $15/hour
Fixed costs: $ 1000/week

Case 5: Made to Measure

Math Questions

Notes to Interviewer (contd.)

Calculation Guide:

Parameter	Units	Value
Output Calculations		
Hours per pair in new system	Hours	9
Hours per week per employee	Hours	45
Per week output per employee	Pairs	5
Total employees	Number	15
Weekly output	Pairs	75
Profit calculations		
Shoe selling price	$/pair	300
Materials and delivery cost	$/pair	50
Gross profit per pair	$/pair	250
Total gross profit per week	$	18750
Employee cost per hour	$/hour	15
Total employee cost	$	10125
Weekly fixed costs	$	1000
Weekly profit	$	7625

Case 5: Made to Measure

Solution and Recommendations

Recommendations

- The process should be changed into one where each group of employees does a specific task.
- This will reduce the average time per pair of shoes to 9 hours, enabling the client to scale up the operation within the specified constraints

Risks

Any process change, especially heavily entrenched processes are fraught with risk.

- Employees may be used to the old system and there may be bumps in the road in implementation.
- There may also be one time costs associated with implementing these changes, especially if it involves a layout change in the workshop

Next Steps

Monitor the process as time progresses, consider implementing the change in phased manner, using a pilot group to test whether there are substantial gains to be made, and identify hiccups early. This may result in a smoother implementation, however the gains could be slower in coming.

Bonus / Guide to an Excellent Case

An excellent case would be market by a candidate who focuses and quickly understands the process. An exceptional candidate should be able to move quickly from the exhibit to the solution, and leave enough time for the calculations.

Case 5: Made to Measure

Exhibit #1 (to be handed to the candidate)

Exhibit #1: Employee survey

Hours per activity	Group 1 (5 employees)	Group 2 (5 employees)	Group 3 (5 employees)
Cutting	3	5	4
Stitching	4	4	3
Finishing	5	3	5
Total Hours	12	12	12

These numbers are a result of survey conducted among the 15 employees at the client's workshop.

The groups essentially are a result of the fact that different employees specialize in particular aspects of the process.

Case 6: Sunshine Power

Introduction

Case Prompt

You are a consultant who has been engaged by "Sunshine Power", owner of a coal power station on the Sunshine Coast of Australia. 6 year's ago Sunshine Power commenced a pilot project with "SunSteam", a solar tech company. SunSteam technology allows your client to reduce the quantity of coal it consumes by using sunlight as an additional heat source.

The $3.5M AUD pilot, involving one SunSteam array, experienced many technical difficulties at first but has just broken even. Recently, SunSteam proposed to expand the pilot by constructing four additional SunSteam arrays. Your client has very specific project investment criteria and is not sure if they should accept the SunSteam proposal.

Case Tracker

- **Led By**: Candidate
- **Industry**: Utilities/ Capital Construction
- **Level of Difficulty**: Medium
- **Case Type**: Profitability

Fit Questions

- What has been your greatest accomplishment so far?
- What would you do if someone asked you to do something unethical?
- Tell me about a decision you have made that you later regretted?

Guide To Interviewer

This case is a cost efficiency problem - an upfront fixed investment results in lower operating cost.

1. Provide ONLY exhibits 1 and 2 up front and read case prompt to interviewee.
2. Candidate may only view the Exhibits, no other case material.
3. Answer clarifying questions with information provided. All other information is "Unknown"
4. Provide exhibit 3 only when asked about the cost or price of coal.

Encourage the candidate to do additional brainstorming on risks & benefits of the project.

Case 6: Sunshine Power

Clarifying answers and case guide

Clarifying answers to provide

- Cost of expansion?
  - Unknown – make assumption based on case prompt ($3.5M per array)
- Output of One SunSteam Array?
  - Steam produced by array equated to 0.2% saving in annual coal quantity consumed on avg.
- Annual Consumption of Thermal Coal?
  - Plant operates 24hours a day at 100% output capacity. Prior to pilot plant consumed 4 million metric tons of Thermal Coal Per Annum
- Array Operating costs?
  - SunSteam is easy to maintain, and is maintained by existing on-site staff (assume Op Cost = $0)
- Client Investment Criteria?
  - Payback must be less than 5 years, based on internal cost savings only

Guide to case / Guide to handouts

Exhibit 1 – SunShine Power Station Plan

- "Simple sketch of SunShine Power Station site showing proposed plans for expansion"

Exhibit 2 – SunSteam Technology

- "Illustrates SunSteam technology, note inputs and outputs"
- "SunSteam technology is actually very simple, using mirrors to focus sunlight to boil water and create steam. Usually coal is burnt in a boiler to create steam"

Exhibit 3 – Price of Thermal Coal Last 5 years

- "Spot Price of Thermal Coal over last 5 years"

Case 6: Sunshine Power

Key elements to analyze: Cost Analysis

Fixed Investment Costs

Construction cost of one array = $3.5M AUD

Construction cost of four arrays = $14M AUD

Total Fixed Cost to be repaid over 5 years = $14M AUD

Volume of Coal Saved

One Array = 0.2% Coal Saving
Four Arrays = 0.8% Coal Saving*

Annual Consumption of Coal = 4,000,000 Metric Tons.

Quantity Saving = 4,000,000 x 0.008
32,000 Tons per year**

Required Price of Coal to break even

E.g. Total for 5 years. Fixed cost divided by coal quantity saved in total.
14,000,000 / (32,000 x 5) = $87.50

OR: Per Year saving requirement divided by quantity saved.
2,800,000 / 32,000 = $87.50

Notes to Interviewer

Calculating fixed investment per year for the 5 years is also possible:

$14M / 5yr = $2.8M per year

Therefore Cost Saving must be greater than $2.8M per year.

Notes to Interviewer

* Allowable to assume original array is considered in the payback. Therefore coal quantity saving = 1% per year

**Math Shortcut – candidate can calculate 0.1% then double 3 times.

Notes to Interviewer

Note: that $87.50 is the break even price.

Alternately Candidate can pick a price of coal e.g. $90 and demonstrate positive return.

Case 6: Sunshine Power

Solution and Recommendations

Recommendations

- Based on current price of coal (Approx. $83) achieving payback will not be possible.
- Payback time criteria is satisfied based on a calculated break even price of coal of $87.50.
- If coal prices are expected to rise above $87.50 over 5 years on average, as seen over 4 of the 5 past years, then payback criteria will be achieved.

Risks

- Price volatility of coal is the fundamental risk in achieving payback criteria. The higher the price of coal the faster the payback on the project.
- Technical difficulties with new array could delay payback time as they did with the pilot.

Next Steps

- Mitigate coal price risk by hedging or locking in option contract.
- Negotiate down construction cost of expansion. Case assumed a $3.5M AUD cost per array. If fixed cost of construction was to drop to $3.3M AUD per array then the project would meet payback criteria based on the current coal price.

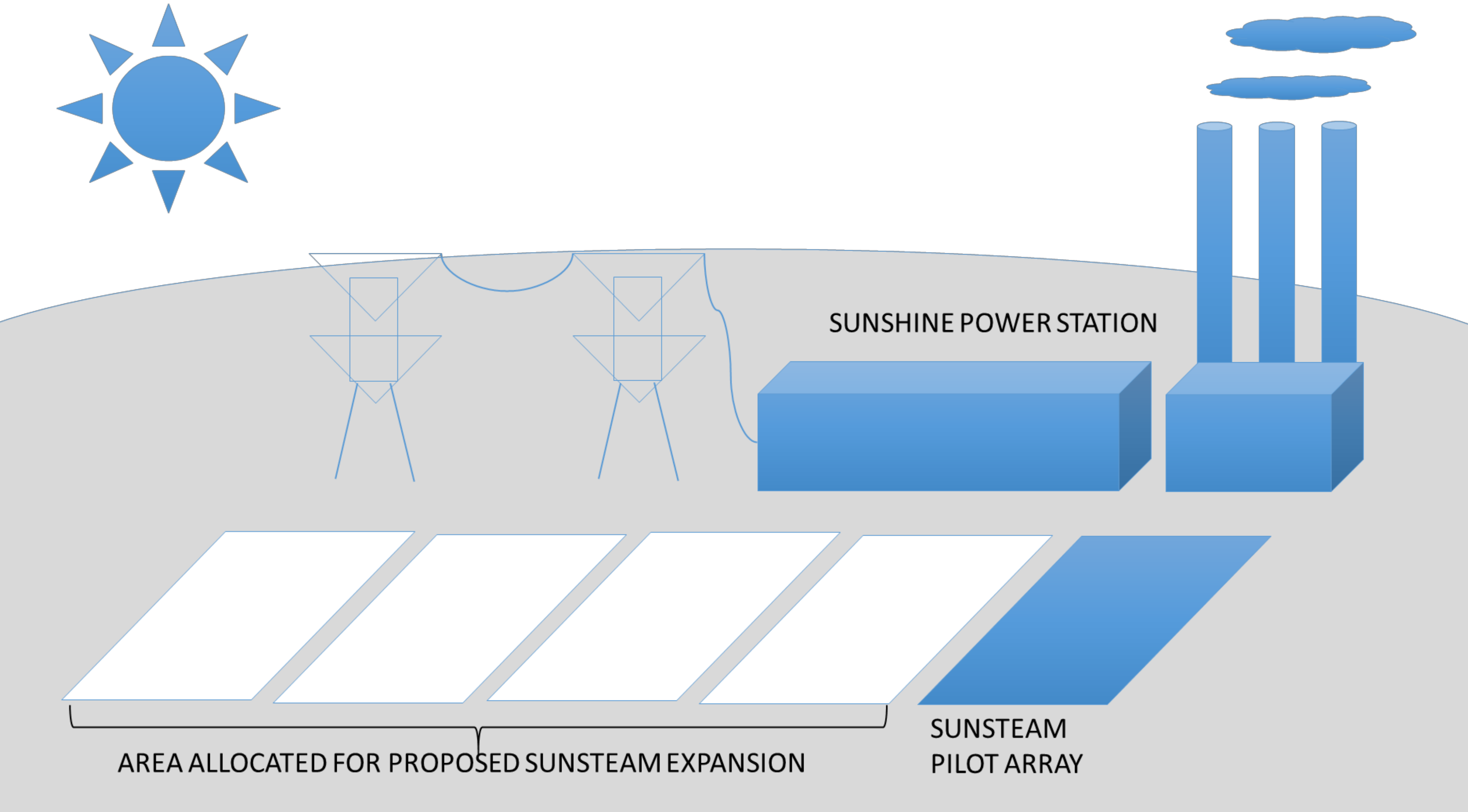
Bonus / Guide to an Excellent Case

- Identifies that sunlight is free, but also identifies the limits of the potential growth. I.e. Coal consumption can only be cut to a maximum of 50% due to 24 hour nature of power plant operation.
- Notices declining trend in coal price and seemingly negative correlation to the pilot project payback of 6 years, can deduce that “technical difficulties” must account for 6 year payback when coal was at higher prices.
- Identifies possible external gains from the project such as, carbon credit or tax exemptions, and corporate responsibility bonuses for the client.

Case 6: Sunshine Power

Exhibit #1 (to be handed to the candidate)

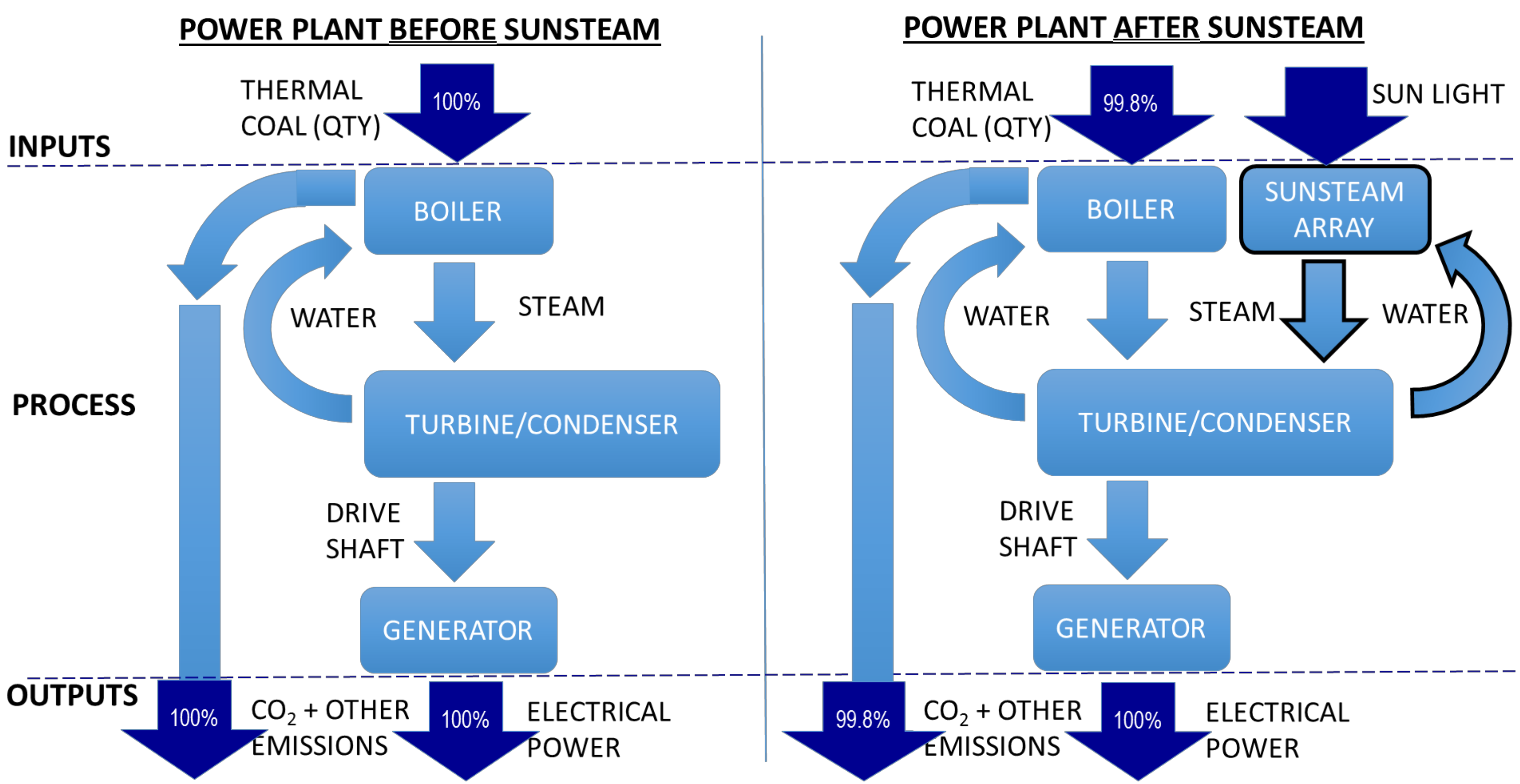
Exhibit #1: Sunshine Power Station Site Plan



Case 6: Sunshine Power

Exhibit #2 (to be handed to the candidate)

Exhibit #2: SunSteam Technology Flow Chart



Case 6: Sunshine Power

Exhibit #3 (to be handed to the candidate)

Exhibit #3: Spot Price of Thermal Coal (Last 5 Years)

Case 7: Beijing International Airport

Introduction

Case Prompt

You are an experienced consultant from a top tier consulting firm in Beijing. On a regular Thursday night after you leave work, you decided to grab a beer in Sanlitun, a popular nightlife district. As you are about to finish your second beer, your old friend, the CEO of Beijing Capital International Airport (BCIA) walks into the bar and sits next to you.

He says "Hey, you are a consultant, right? I heard from a buddy of mine that Shanghai Airport Authority (SAA) is trying to acquire a smaller airport in the middle of Shandong Province. What do you think?"

As you put down your beer, what should you say to your old friend?

Case Tracker

- **Led By**: Candidate
- **Industry**: Airport/Airlines
- **Level of Difficulty**: Medium
- **Case Type**: M&A

Fit Questions

- Tell me about a successful business relationship you built with a client, boss, or peer in your previous job.
- What aspects of your previous job did you like? Dislike?

Guide To Interviewer

This case is purposefully vague. Please read it carefully before giving it to the candidate.

The case tests the candidate's ability to extract client intention from conversation, and think off their feet to make quick recommendations.

Case 7: Beijing International Airport

Clarifying answers and case guide

Clarifying answers to provide

- The Shanghai Airport is interested in acquiring Weihai Airport and Tai'an Airport in the ShanDong Province.
- We do not know how much these airports are selling for.
- Beijing Airport do not have a specific acquisition target in mind.
- Biggest airports by traffic: Beijing, Guangzhou, Shanghai Pudong, Shanghai Hongqiao, Shenzhen Bao'an.
- The closest airport to Beijing is Tianjing, which is at least 2 hours by car.
- Industry landscape by revenue in 2014: East China 30.5%, Middle South China 26.1%, North China 18.1%, South West China 13.5%, Rest of China 11.8%
- As a high-end transportation mode, air passenger transport is highly concentrated in cities with large populations and well-developed economies.

- We are in a bar. (a.k.a. We don't have access to much detailed financial information about either of the airport. Ask the interviewee to make educated guesses where need be.)

Guide to case / Guide to handouts

There are three main questions of this case:

Q.1: Who is actually our client?

- Some people may get confused on who the client is. The guy sitting next to us is the Beijing Airport CEO, not the Shanghai Airport one. We should then think from Beijing's perspective, and not dwell on Shanghai's.

Q.2: What is Beijing Airport CEO actually interested in?

- Well, it seems like he is interested in seeing why Shanghai airport is acquiring smaller airports, and maybe a little worried about his own strategy -- should Beijing airport consider acquiring other small airports?

Q.3: Should Beijing airport develop their own M&A strategy?

- This is the core of the case. The candidate should be able to navigate the possibility of M&A for Beijing Airport, and analyse the situation.
- M&A is costly and often painful for organizations. Thus we need to find significant synergies between Beijing Airport and smaller airports to be able to justify an M&A strategy.

Note: There is a lot of irrelevant information in this case. Interviewee is expected to focus on the analysis and not be distracted by excess data.

Case 7: Beijing International Airport

Key elements to analyze: Cost Analysis

Revenue Streams (in order of %)

- Aircraft movement & service charges (e.g. landing and departure fees, refuelling, aircraft parking and maintenance, etc.; accounts for 50% or more of revenue.)
- Concessions (rent or leases of retail and food outlets, advertising revenues, air catering, etc.)
- Airport fees (directly charged on each ticket)
- Other services (Ticketing services, government subsidies, etc.)
- Parking Fees (~1% of revenue)

Cost Streams (in order of %)

Variable Cost: Fuel (for resale to airlines)
Fixed Costs:

- Special equipment for ground support (e.g. landing, refueling, ferrying, maintenance, cargo, baggage handling).
- Wages (airport workers tend to be educated and specialized workers)
- Depreciation of equipment
- Rent & Utility

Synergies

Cost: Most of the costs are tied to capital purchases and access to local resources, thus no synergy amongst different airport locations. The fuel cost will mostly be influenced by global prices.

Revenue: Ability to charge airlines, renters or even advertisers of the airport depends on the air traffic volume at that airport. Thus no synergies

Notes to Interviewer

In 2014, airports in China average 12.6% in profits. Larger airports usually keep higher profits due to economy of scale, and its ability to charge higher landing fees and attract higher quality retail tenants.

Notes to Interviewer

Airports are predominantly fixed-cost businesses, with a large portion of expenses linked to the cost of operating and maintaining fixed assets, such as runways and terminals, rather than traffic volumes.

Notes to Interviewer

Question all assumptions the interviewee made on the synergies. There aren't any real synergies between large and small airports.
(In real life, the four major players in China operates in four different cities with no incentive to merge with each other)

Case 7: Beijing International Airport

Solution and Recommendations

Recommendations

Looking at your cost and revenue streams, it seems like there aren't any opportunities for synergy if you purchase a smaller airport.

Therefore, I don't recommend you to develop an M&A strategy.

Risks

- The key risk here is missing out on the deal and the benefits on why Shanghai airport is buying smaller airport – brainstorming on why they might be doing so will suffice for risks

Next Steps

- Suggest other areas for BCIA to boost its revenues/profits (optional)

Bonus / Guide to an Excellent Case

- Given our analysis, there is no significant benefit to M&A in the airport operating industry. Thus bonus points are given to candidates who can make reasonable assumptions on why Shanghai airport is buying smaller airports. It may be the case that Shanghai airport got back-door deals that gave them an unfair advantage on the acquisition price, making the deal attractive to them.
- Candidate should brainstorm potential profit-boosting areas:
  Revenue: Can they offer new services? e.g. hotels, conference capability, and other guest services.
  Cost: given that airports are high fixed cost, is there ways to increase efficiency? Can they refinance their debt?

Case 7: Beijing International Airport

Exhibit #1 (to be handed to the candidate)

Exhibit #1: Map of China and key airports

Case 8: Grad-U-Date

Introduction

Case Prompt

Our client is an online dating startup named Grad-U-Date, which specializes in matching graduate students with other graduate students. Grad-U-Date has finished building their website and are now looking for your assistance in deciding on a strategy to monetize their website.

What is Grad-U-Date's best method of monetization? How profitable will the company be?

Case Tracker

- **Led By**: Interviewer
- **Industry**: Online Dating
- **Level of Difficulty**: Medium
- **Case Type**: Pricing

Fit Questions

- What has been your greatest accomplishment?
- Tell me about a time that you had a conflict with someone at work.
- What are your 3 biggest weaknesses?

Guide To Interviewer

State the information above and allow the candidate to design a framework. Complete brainstorming exercises before starting profit calculations.

Share Exhibit #2 with candidate. After profit calculations are complete, share Exhibit #3.

Candidate should identify the following major tasks:

- Market size
- Competitive landscape / market share
- Profitability for each monetization model

Case 8: Grad-U-Date

Clarifying answers and case guide

Clarifying answers to provide

- Gender ratio of users will be a 50/50
- MBA, law and medical students are considered professional students

- The website has already been built, and is considered a sunk cost
- Grad-U-Date will only operate within the United States

- There are 4 major competitors and hundreds of small competitors
- There has been a significant increase in the number of free dating phone apps starting in late 2012
- There are currently no other online dating services that focuses only on graduate students

- Only one revenue model can be used

Guide to case / Guide to handouts

Brainstorming and Market Size:
Ask all of the questions in the "Key elements to analyze" section. These questions are brainstorming exercises and a market sizing.

Revenue Model Question:
Provide the candidate Exhibit #2.

Calculate the profit of each revenue model. Fixed costs are $10,000,000 a year and variable operating cost is $1 per member per year. Which revenue model would you recommend?

Additional Questions (Ask as many as time permits)
After candidate finishes calculations, provide Exhibit #3.

- Does this information change your recommendation for which revenue model?
- Why do you think that the percentage of users paying monthly fees dropped so quickly starting in 2013?
- Given your recommended revenue model, what other strategies can Grad-U-Date use to increase profit?

Case 8: Grad-U-Date

Key elements to analyze

Monetization Brainstorm

What types of monetization models could Grad-U-Date use?

What are the advantages and disadvantages of each model?

Target Market Brainstorm

Grad-U-Date is considering limiting the site to only MBA students what issues might there be with an MBA only dating website?

Market Sizing

What is the potential market size for Grad-U-Date?

Note: Not limited to MBA students.

(Share Exhibit #1 with candidate)

Notes to Interviewer

- Monthly Fee
- Advertising
- Pay for Premium Account
- Profile Consulting Services
- Micro-Transactions
  - Pay per Message
  - Pay for bump in profile traffic

Push candidate for more answers until they have at least 3

Notes to Interviewer

- There are more men than women at most MBA programs, there will be a significant gender skew
- It would unnecessarily limit the size of the market
- Most MBA students tend to be older than other students, so many are already married or in a committed relationship

Notes to Interviewer

- Medical = 450 x 4 = 1,800
- MBA = 300 x 2 = 600
- Law = 200 x 3 = 600
- Non-Professional = 1,000 x 3 = 3,000

- Grad Students per University = 1,800 + 600 + 600 + 3,000 =6,000

- Market Size = 6,000 * 1,000 = 6,000,000

Case 8: Grad-U-Date

Math Question

Revenue Model Calculation

Calculate the profit of each revenue model. Fixed costs are $10,000,000 a year and variable operating cost is $1 per member per year. Which revenue model would you recommend?

(Provide the candidate Exhibit #2)

Notes to Interviewer

Monthly Fee:
Customers = 6,000,000 x 5% = 300,000 users
Revenue = 300,000 x $10 x 12 = $36 M
Profit = $36,000,000 - $10,000,000 – 300,000 x $1 = $25.7 M

Premium Account:
Customers = 6,000,000 x 30% = 1,800,000 users
Revenue = 1,800,000 x (50% x 40% + 50% x 25%) x $5 x 12 = $35.1 M
Profit = $35,100,000 - $10,000,000 – 1,800,000 x $1 = $23.3 M

Advertising:
Customers = 6,000,000 x 40% = 2,400,000 users
Revenue = 2,400,000 x ((1000/1950) x $0.75 + (950/1950) x $1.25) x 12 ~ $28.6 M
Profit = $28,600,000 - $10,000,000 – 2,400,000 x $1 = $16.2 M

Case 8: Grad-U-Date

Additional Questions

Question #1

Does this information change your recommendation for which revenue model?

(Provide Exhibit #3 to candidate)

Question #2

Why do you think that the percentage of users paying monthly fees dropped so quickly starting in 2013?

Question #3

Given your recommended revenue model, what other strategies can Grad-U-Date use to increase profit?

Notes to Interviewer (Question #1)

- Candidate should switch recommendation from monthly fee to premium account
- The portion of customers willing to pay a fee and the average fee paid have been rapidly decreasing since 2008
- It is unlikely that current profitability will be maintained in the future

Notes to Interviewer (Question #2)

- Increased competition in online dating market
- Quality free dating apps released that are more convenient
- Tinder app launched in late 2012

Notes to Interviewer (Question #3)

Reduce Costs:

- Outsource servers
- Only provide email support and no phone number

Increase Revenue:

- Create app to attract more customers
- Profile consulting services
- Profile photo editing
- Offer deals with popular date locations
- Expand to recent graduate school alumni
- Add micro-transactions

Case 8: Grad-U-Date

Solution and Recommendations

Recommendations

- Grad-U-Date should adopt the premium account revenue model
- Monthly fee revenue model should not be selected because this segment is rapidly disappearing due to competitive pressure
- The premium account model is expected to bring in $23.3M in annual profit

Risks

- Premium account could be seeing a similar decrease in share as fee
- Smaller % of users will purchase a premium account than predicted
- Ad supported model could be growing faster than premium account
- Graduate students may not be able to afford to buy premium accounts
- Number of people going to graduate school could decrease
- Grad students may not want to limit their dating pool to grad students

Next Steps

- Explore building an app
- Look into market trends for ad and premium account revenue models
- Expand into new markets such as undergraduates or other countries
- Offer additional services: profile consulting services and date deals
- Add micro-transactions such as increasing the traffic to your profile
- Incorporate social media
- Can premium account and ads work together?

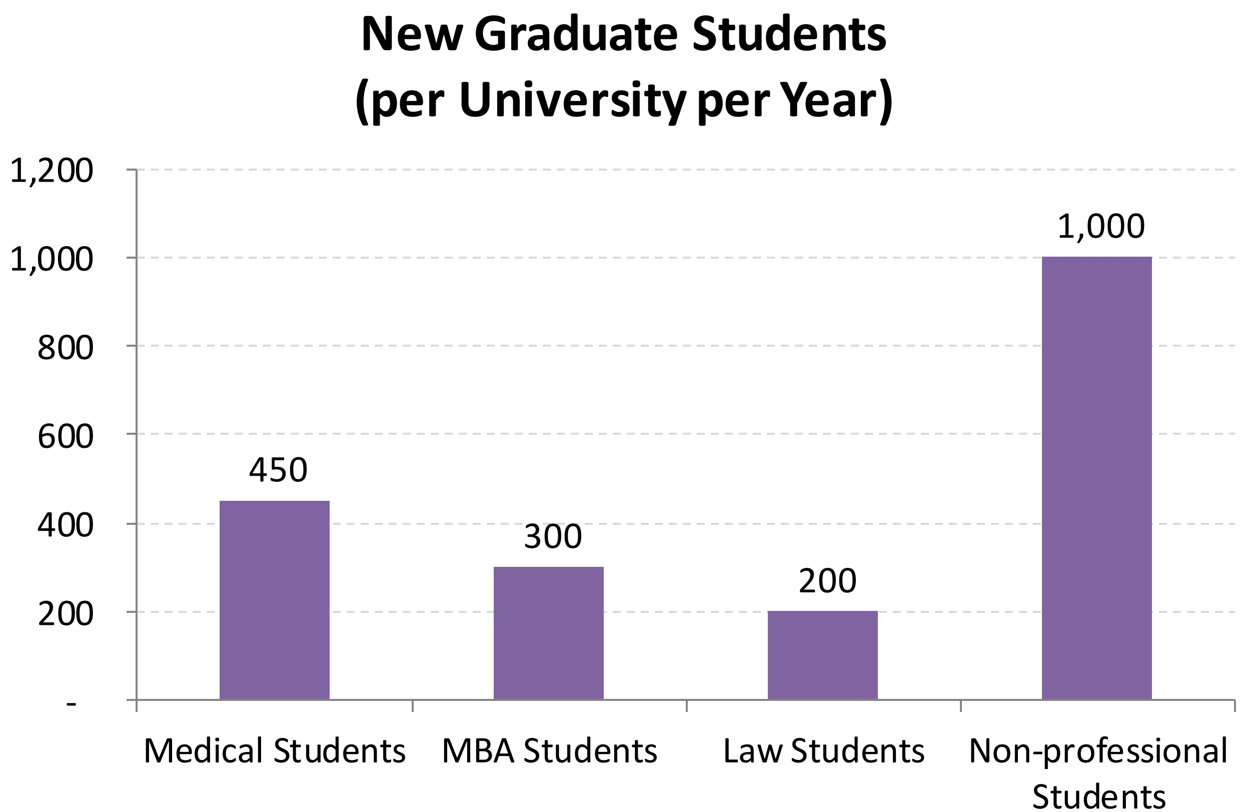
Bonus / Guide to an Excellent Case

- A strong candidate will brainstorm 5+ monetization models and identify several reasons not to limit the website to MBA students
- Better candidates will finish the math fast enough to do 2 or 3 of the additional questions
- When brainstorming, excellent candidates will structure their answers into buckets, such as strategies to reduce costs vs increase revenue when coming up with ways to improve profitability

Case 8: Grad-U-Date

Exhibit #1 (to be handed to the candidate)

Exhibit #1: Student Enrolment Information



Years for Degree:	Medical Students	MBA Students	Law Students	Non-professional Students
	4	2	3	3

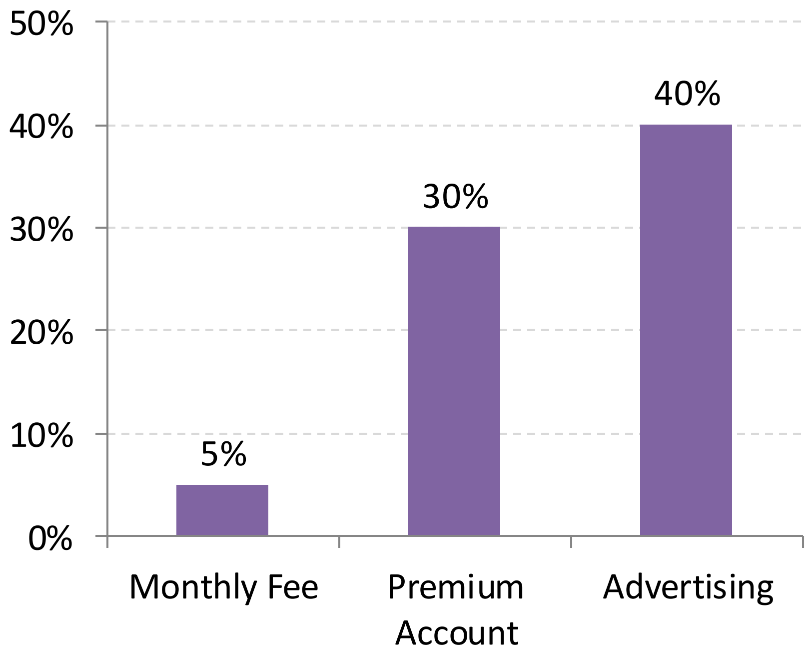
Note: There are currently 1,000 Universities in the United States and all universities have the above four groups of students.

Case 8: Grad-U-Date

Exhibit #2 (to be handed to the candidate)

Exhibit #2: Product Usage

Forecasted % of Graduate Students using Grad-U-Date



<u>Monthly Fee Model</u>
Monthly membership fee would be $10

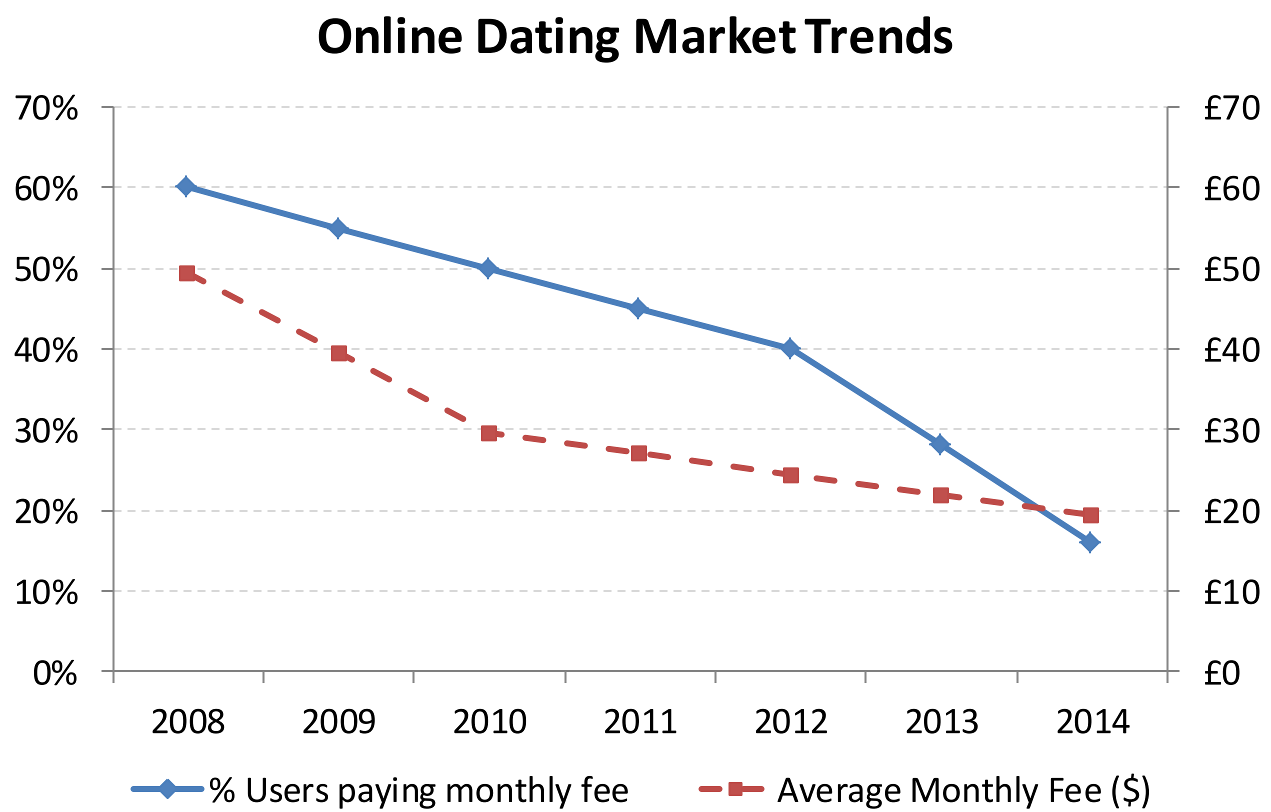
<u>Premium Account Model</u>
Premium accounts costs $5 per month; 40% of men and 25% of women purchase premium accounts

<u>Advertising Model</u>
Non-professional students bring in $0.75 per month and professional students bring in $1.25 per month in ad revenue

Case 8: Grad-U-Date

Exhibit #3 (to be handed to the candidate)

Exhibit #3: Online Dating Market Info



Case 9: A Sticky Paper Situation

Introduction

Case Prompt

Your client is PaperCo, a manufacturer of specialty papers which are sold to commercial printers in the US. PaperCo produces self-adhesive sheeted papers that are ultimately used in a variety of labeling applications – often, eventually, to service CPG firms and for billboards. PaperCo's operations are profitable, but the business has failed to grow over the past few years.

The client would like to invest in the business to restore growth and you have been asked to identify opportunities.

Case Tracker

- **Led By**: Candidate
- **Industry**: Paper and Pulp
- **Level of Difficulty**: Hard
- **Case Type**: Strategy/ Reinvestment

Fit Questions

- What's the best constructive criticism your boss has given you?
- Describe a situation where your presence salvaged a tense team dynamic.
- How have you dealt with low team morale in the past?

Guide To Interviewer

For most candidates, this case will be primarily focused on reaching and working through the math, leaving little time for high-level strategy.

The difficulty of this case lies in feeling comfortable with the relatively obscure product/industry and in obtaining the right information to make the necessary profitability and ROI calculations.

There are some key pieces of information which the candidate will need to obtain in order to head in the right direction. If they struggle to ask the right questions to get that information then you can guide them to the right place.

Case 9: A Sticky Paper Situation

Clarifying answers

Clarifying answers to provide

Products and Pricing

- Raw materials for the products include rolls of paper, adhesives, and a non-stick coating. They are then layered. Finally, they are cut to specification for the customers – this process is called "sheeting"
- The client has a range of products that is broadly the same for all customers and that it does not wish to change
- Margins are acceptable, but management is averse to price-cutting because of a fear of initiating a war with competitors that would leave everyone worse off
- Unit price differs according to customer segment (given in next section)

Market / Customers

- PaperCo sells to 24,000 commercial printers in the US (20,000 are small, 3,000 medium and 1,000 large)
- The company has 30% market share in the small printer segment and 10% in the medium and large printer segments
- Your team-mates recently completed a study that showed that if PaperCo expanded production it could increase sales to the medium-sized or large-sized printer segments by 20% *(Note to interviewer: The candidate should be clear about the difference between increasing sales by 20% and increasing market share by 20 percentage points. The former is correct. The latter would constitute a 200% increase in sales)*
- Printers (the customers) prefer to receive the product in different forms according to the size of the customer:
    - Small prefer boxes
    - Medium prefer cartons
    - Large prefer pallets
- Client's current sales volumes to each customer segment are below:

Variables	Small	Medium	Large
Number of customers	20,000	3,000	1,000
Annual unit usage per customer	100	500	3,000

Case 9: A Sticky Paper Situation

Clarifying answers

Clarifying answers to provide (contd.)

Industry

- This is a mature industry, with low growth across the board
- There are no significant competitive or regulatory trends in the industry to be aware of

Market / Customers

- The company has the capability to expand production
- Any additional production would require an increase in the client's fixed costs (e.g. new packaging equipment, expanded facilities, increase in permanent labor force). The amount of the increase differs according to distribution method:
  - An expansion in *carton* distribution capacity would constitute a one-off cost of $675K (for medium printer segment)
  - An expansion in *pallet* distribution capacity would constitute a one-off cost of $1.3M (for large printer segment)
- Variable costs consist of materials, sheeting, coating and packaging.
- Unit costs differ according to customer segment (given below):

Variables	Small	Medium	Large
Unit price	$20	$18	$15
Materials cost	$5.5	$5.5	$5.5
Coating cost	$1	$1	$1
Sheeting cost	$0.5	$0.5	$0.5
Packaging cost	$3	$2	$1

Case 9: A Sticky Paper Situation

Key element to analyze/Math Question

Profitability for each customer segment

Notes to Interviewer

- The case requires the candidate to choose the best investment. To do this they need to compare the cost of the investment to the potential return. In order to calculate the return (i.e. the additional profit generated by the investment) they need to know current profitability, which they can deduce using the information below
- N.B. if the candidate has already identified that the growth opportunities lie in the medium and large printer segments they should not waste time determining the profitability of the small printer segment

Variables	Source (given in case unless stated)	Small	Medium	Large
Unit price		$20	$18	$15
Materials cost		$5.5	$5.5	$5.5
Coating cost		$1	$1	$1
Sheeting cost		$0.5	$0.5	$0.5
Packaging cost		$3	$2	$1
Profit per unit	**(unit price) – (all costs)**	**$10**	**$9**	**$7**
Number of customers		20,000	3,000	1,000
Annual unit usage per customer		100	500	3,000
Total annual profit	**(unit profit) x (# of customers) x (annual usage)**	**$20M**	**$13.5M**	**$21M**

Case 9: A Sticky Paper Situation

Key element to analyze/Math Question

ROI analysis

Notes to Interviewer

ROI for medium and large segments:

- Get the total available profit in the market (previous slide) and consider the additional profit from the production expansion
- Finally, account for the cost of getting the extra capacity to supply the additional customers

Variables	Source (given in case unless stated)	Medium	Large
Total annual profit	Calculated on the previous page	$13.5M	$21M
Additional annual sales with expansion		20%	20%
Additional annual profit	**(total profit) x (additional sales %)**	**$2.7M**	**$4.2M**
Cost of capacity expansion (one-off)		**$675K**	**$1.3M**
Additional profit net of expansion (year 1)	**(additional profit) – (cost of capacity expansion)**	**$2.025M**	**$2.9M**
Return on investment (1-year horizon)	**(net additional profit) / (cost of investment)**	**3**	**2.23**

Key Takeaway: 1-year ROI is greater for the medium sized printer segment

Case 9: A Sticky Paper Situation

Solution and Recommendations

Recommendations

- The client should expand production in the medium size printer segment, as this generates the largest ROI over the client's preferred time horizon (1-year)
- Additionally, the smaller cost of expansion in the medium printer segment means a reduced financing need and a resulting diminished risk from the investment
- The client can also consider expansion into the large size printer segment at a later date (depending on capacity)

Risks

- These recommendations are based on no growth on the markets, expansion in one or the other could tip the balance
- There is no information regarding competitive response, but given the aggressive assumptions regarding increased sales it is reasonable to assume there would be one

Next Steps

- Client should start looking into how the production will be expanded and the timeframe required to do so
- Investigate the impact of potential competitive response as a result of production expansion
- Deep-dive into industry trends for different segments

Bonus / Guide to an Excellent Case

- Stronger candidates will note that over a longer time horizon the large printer segment generates a bigger ROI.
- Candidates may even choose to calculate the exact time period over which the large segment starts to have a greater ROI, although this is definitely not required)
- Strong candidates may also note:
  - This segment of the specialty paper market seems to be fairly stable and mature, thus the assumption of no growth, hence it would probably be wise to look for opportunities outside its core products
  - Producing products downstream in the paper industry could reveal attractive opportunities as well

Case 10: Sports Bar

Introduction

Case Prompt

Your client is an entrepreneur looking to invest in a new bar. He needs to determine how profitable the company will be and convince his primary investor, his father, that it will be a viable business.

What factors would you consider and investigate?

Case Tracker

- **Led By**: Candidate
- **Industry**: Food Services
- **Level of Difficulty**: Medium
- **Case Type**: Profitability

Fit Questions

- What is the most interesting thing you've done in the past three years?
- What would you change if you could start your career over?
- Tell me about a time that you persuaded a group to go along with an idea that you had.

Guide To Interviewer

This case is math intensive so the candidate will need to stay organized. A great caser will lay out a chart with all the data and calculations as well as talk through the calculations to keep the interviewer apprised of his or her thought process.

By the end of the case, the candidate should make a clear recommendation as to how the primary investor can be convinced it is a viable business. He/she should approach it from an investment perspective and analyze the profitability of the business, along with any risks that aren't discussed. The total profitability should be framed in the context of other possible ways the father could invest his money.

Case 10: Sports Bar

Clarifying answers

Clarifying answers to provide

Profitability

Revenues:
- The average customer spends $15 on food per visit
- The average customer spends $20 on drinks per visit
- Capacity constraints and benchmarking should also be discussed here

Costs:
- Lease cost is $10,000 per month
- Labor costs can be seen below
- COGS: Food has a 20% gross margin
- COGS: Drinks have a 50% gross margin
- There is no specific data on utilities, legal, insurance, licenses, training, remodeling , equipment, and other startup costs

Labor Needs

	# of people	Pay Rate
Kitchen	4 (when open)	$10/hour
Bar	1	$5/hour
Waitresses	3	$5/hour

Competitive Research

Hours	Sunday – Wednesday	
	Food Customers	Drinks Customers
12pm – 8pm	10 customers/hour	4 customers/hour
8pm – 12am	4 customers/hour	15 customers/hour

Hours	Thursday – Saturday	
	Food Customers	Drinks Customers
12pm – 8pm	15 customers/hour	5 customers/hour
8pm – 2am	5 customers/hour	20 customers/hour

Case 10: Sports Bar

Key element to analyze/Math Question

Profitability calculation: No. of orders per week

Notes to Interviewer

Variables	Source (given in case unless stated)	Sunday - Wednesday		Thursday – Saturday	
		Food	Drinks	Food	Drinks
Day orders per hour		10	4	15	5
Day time hours		8 (12pm-8pm)	8 (12pm-8pm)	8 (12pm-8pm)	8 (12pm-8pm)
Day time orders	**(hours) x (orders per hour)**	**80**	**32**	**120**	**40**
Night orders per hour		4	15	5	20
Night hours		4 (8pm-12am)	4 (8pm-12am)	6 (8pm-2am)	6 (8pm-2am)
Night orders	**(hours) x (orders per hour)**	**16**	**60**	**30**	**120**
Total daily orders	**(night) + (day orders)**	**96**	**92**	**150**	**160**
Days per week		4	4	3	3
Total weekly orders	**(days) x (daily orders)**	**384**	**368**	**450**	**480**
Total weekly food orders	**834**				
Total weekly drink orders	**848**				

Case 10: Sports Bar

Key element to analyze/Math Question

Profitability calculation (contd.): Costs

Notes to Interviewer

Variables	Source (given in case unless stated)	Food	Drinks	Calculations
Price		$15	$20	
Weekly orders	Previously calculated	834	848	
Weekly revenue	**(price) x (weekly orders)**	**$12,510**	**$16,960**	**$29,470**
COGS		80%	50%	
Weekly COGS	**(% cost) * (weekly revenue)**	**$10,008**	**$8,480**	**$19,488**

Variables	Source (given in case unless stated)	Kitchen	Bar	Waitresses
Salary per hour		$10	$5	$5
# people		4	1	3
Sunday – Wednesday hours	(4 days x (12pm-12am))	48	48	48
Thursday – Saturday hours	(3 days x (12pm-2am))	42	42	42
Total labor cost	**(salary) x (total hours)**	**$3,600**	**$450**	**$1,350**
Total weekly labor cost	**$5,400**			

Case 10: Sports Bar

Key element to analyze/Math Question

Profitability calculation (contd.)

Notes to Interviewer

Variables	Source (given in case unless stated)	Calculations
Weekly revenue	Previously Calculated	$29,470
Weekly COGS	Previously Calculated	$19,488
Weekly labor	Previously Calculated	$5,400
Weekly lease cost (assume 4 weeks/month)		$2,500
Weekly Profit	(revenue) – (COGS) – (labor) – (lease)	$2,082
Weeks per year	Assumed	50
Annual Profit	(% cost) x (weekly revenue)	$104,100

Key Takeaway: Business is not projected to lose money but cost assumptions may be incomplete

Case 10: Sports Bar

Key element to analyze/Math Question

Question

Your client estimates that the start-up capital needed to open the Sports Bar (e.g., renovations, equipment, licenses) is $500K. How long will it take for the business to break even? Over a 5-yr period, what would be the return on this investment? (Assume no interest)

Notes to Interviewer

Variables	Source (given in case unless stated)	Calculations
Up-front costs		$500,000
Annual profit	Previously Calculated	$104,100
Break-even Point**	**(up-front costs)/(annual profit)**	**4.8 years**
5-year ROI**	**((annual profit)*(5years) – (up-front costs)) / (up-front costs)**	**4.1%**

Return on Investment (ROI)

- The client's father would have to compare this opportunity against other potential investments
  - 4.1% at the end of 5 years
  - Over the 5-yr period, less than 1% return per year
- Although calculations indicate that the business can be profitable, the margin is rather small relative to the initial investment required
- Given these results, the client's father could likely find another investment opportunity with a faster payback period and higher ROI

Case 10: Sports Bar

Solution and Recommendations

Recommendations

- From a financial perspective, the sports bar is profitable, but should be compared to other ways the father can invest his money and when he is expecting a return
- The recommendation should focus on convincing the primary investor (his father) that it will be a viable business with strong returns in the long-term

Risks

- There are other costs that have been excluded from this case that will need to be properly calculated in more detail and include:
  - Utilities
  - Marketing and promotions
- Location could also be an important factor in determining the success of the bar compared to competitors
- Other risks include sudden rise in COGS (food shortage), increase in minimum wages, or decrease in customers after a few months

Next Steps

- Incorporate utilities, marketing etc. costs into the profitability calculation
- Investigate other opportunities for your client's father to invest money in

Bonus / Guide to an Excellent Case

- Strong candidates may also discuss ways to improve the existing business plan such as tapping other sources of revenue (jukebox, advertising) or following a different operating model (food vs. drinks)
- Strong candidates may also note:
  - In order to shorten the break-even period, the client should investigate substitutes for the fixed start-up costs, such as purchasing used equipment or a less significant interior redesign
  - Over time, if the business is successful in building a unique brand and customer loyalty, it may be possible to charge higher margins

Case 11: A PE and a Soda

Introduction

Case Prompt

Your client is a private equity firm that has recently purchased a plastic materials manufacturer that makes products such as plastic soda bottles.
The client is looking to cash out of their investment within 5 years and wants you to help improve the profitability of the manufacturer.

Case Tracker

- **Led By**: Interviewer
- **Industry**: Private Equity
- **Level of Difficulty**: Medium
- **Case Type**: Profitability

Fit Questions

- Describe a time when you had to handle a situation where you were presented with several conflicting priorities.
- What did you learn about yourself at your last job?
- What is your management philosophy?

Guide To Interviewer

In this case the candidate will be required to relay a thorough framework and conduct a quantitative comparison of the two products, after which the interviewer will take charge and ask the questions mentioned in the case.

A good framework will outline various costs associated with the bottling industry and help understand the importance of capacity constraints in the manufacturing industry.

While the case is relatively straightforward, it allows superior candidates to shine at the end by offering a robust synthesis of the choices facing the PE firm and the risks which are necessary to consider in the recommended strategy.

Case 11: A PE and a Soda

Clarifying answers

Clarifying answers to provide

Market

- Bottling market size – can be calculated by revenues later
- Bottling market is growing at 10% a year in North America
- The firm has 30% share of the bottling market
- The firm's bottling sales have been growing at 15% a year, projected 15% growth for each of the next two years

Labor Needs

- The firm manufactures two types of products - bottles and non-bottling goods
- The bottles are delivered locally to the clients, large bottlers such as Coke or Pepsi
- Non-bottling products (such as advertising displays for stores) are delivered directly to the establishments that will use them, such as gas stations
- Bottles are made to spec whereas the non-bottling goods are not
- Firm has higher quality products and manufactures at lower costs due to more efficient machinery

Operations

- The firm has two plants:
    - One plant in southeast US that manufactures only bottles with capacity of 1.5B bottles
    - Another plant in Canada that can produce both bottles and non-bottling materials with capacity of 500M products. Currently producing non-bottling
- Assumptions:
    - No downtime, plants are fully utilized
    - Plants are using new, highly efficient machinery

Revenues and Costs

- Bottles sell for 5 cents each
- Non-Bottling generates $20M in revenues
- Bottles costs:
    - COGS (plastic) – 2 cents per bottle
    - Machinery – 1 cent per bottle
    - Labor - 0.5 cent per bottle
- Non-bottling has total variable costs of $18M
- SG&A across the entire firm is $20M

Case 11: A PE and a Soda

Key element to analyze/Math Question

Comparison of the two products:

Notes to Interviewer

Candidate should conduct a comparison of the two products:

Variables	Source (given in case unless stated)	Calculations – Bottling	Calculations – Non-Bottling
Manufacturing capacity		1.5 B	0.5 B
Revenues		5 cents per bottle	$20M
COGS		2 cents per bottle	-
Machinery		1 cent per bottle	
Labor		0.5 cent per bottle	
Total variable costs	**Bottling: (COGS) + (machinery) + (labor)**	**3.5 cents per bottle**	**$18M**
Total profit	**Bottling: (manufacturing capacity) x ((total revenues) – (total variable cost))** **Non-bottling: (total revenues – total costs)**	**$22.5M**	**$2M**
Profit margins	**(total profit) / (total revenues)**	**30%**	**10%**

Key Takeaway: Bottling products have higher profit margins

Case 11: A PE and a Soda

Key element to analyze

Question #1

Should the firm convert the non-bottling production to bottling in its Canada plant? (cost - $3M)

Notes to Interviewer

- Cost of conversion: $3M
- Assumption – the firm has sufficient cash on hand to finance this project
- Current profit in Canada (previously calculated):
  - $2M, 10% margin
- Projected profit from conversion if the firm can sell the entire capacity:

Variables	Source (given in case unless stated)	Calculations
Number of additional bottles		0.5 B
Profit per bottle	Previously calculated	1.5 cents
Projected profit from conversion	**(# of additional bottles) x (profit per bottle)**	**$7.5M**

Key Takeaway: The conversion could potentially add $5.5M in annual profit, if the firm can sell the entire capacity. Breakeven is in the 1st year

Case 11: A PE and a Soda

Key element to analyze

Question #2

What are some non-financial risks to consider before converting non-bottling production to bottling in its Canada plant?

Notes to Interviewer

- **Implementation timeframe:**
  - How much time will it take?
  - Do we need to take a phased approach?
- **Distribution Channels:**
  - Will the current distribution network need to change to reach customers?
  - How will distribution centers scale up given the growth projections?
- **Costs:**
  - Will there be any additional costs to consider besides the one time conversion cost?
  - Will there be any changes in variable costs like Labor?
  - Any change in profit margins in the Canada plant?
  - Can we re-negotiate supplier contracts to reduce COGS?
- **Other:**
  - Will the client need to hire new workers in the Canada factory or train current workers?
  - Resistance from Labor Union if organized labor is part of out production employee pool in Canada?

Case 11: A PE and a Soda

Key element to analyze

Question #3

How much additional market share should the firm gain in the next 2 years in order to sell the extra bottles?

Notes to Interviewer

Variables	Source (given in case unless stated)	Calculations
Number of bottles currently manufactured		1.5 B
Firm's current market share		30%
Bottling market size	**(# of bottles manufactured) / (market share)**	**5 B**

- Bottling market is growing at 10% per year in North America (given)
- The firm's sales are growing at 15% per year (given)

Variables	Source (given in case unless stated)	Year 0 (now)	Year 1	Year 2
Firms sales	Each year, multiply by the firm's sales growth rate	1.5B	1.72B	1.98B
Bottling market size	Each year, multiply by the bottling market growth rate	5 B	5.5 B	6.05 B
Required market share	**(firm sales) / (bottling market size)**	**30%**	**31.36%**	**32.72%**

Key Takeaway: Gaining ~3% market share in 2 years seams feasible

Case 11: A PE and a Soda

Solution and Recommendations

Recommendations

- The manufacturer should convert the non-bottling manufacturing in Canada to bottling, as it offers better margins, assuming that the firm can maintain sales growth
- The additional capacity is needed to match next year's anticipated demand, although the firm won't need the entire capacity in the first year after expansion (only 0.22M)
- If market and sales grow according to projections, the firm will run out of capacity at the end of the second year

Risks

- The market might not continue growing at the same rate or may enter a period of decline
- It may be difficult for the company to continue to grow faster than the market
- The non-bottling market and firm's sales might be growing at a faster rate (no information was given) and therefore capital may be better spend on that part of the business

Next Steps

- Client should explore what needs to be done to convert the non-bottling manufacturing to bottling (e.g. retraining, recruitment, purchasing new machinery etc.)

Bonus / Guide to an Excellent Case

Strong candidates may also note:

- Consider adding another plant or expanding existing plants to keep pace with the sales growth. Expansion plans should fit within the PE firm's goal of exiting within 5 years
- Renting out additional capacity from other plants may be a feasible option which ties up less capital and allows an easier reversal of the strategy if market trends sour
- Negotiate with suppliers / customers may improve the profitability of the business
- Increase prices due to higher quality products may be possible but lost market share due to a price increase may be difficult to make up in a five year time horizon

Case 12: Botox

Introduction

Case Prompt

The maker of Botox is considering expanding to the migraine market and has already begun clinical trials in this area. The product is expected to receive FDA approval in 2016. Your team has been hired to assess the viability of this product for launch.
How will you determine if the market is attractive? If the market is attractive, do you have any recommendations regarding how to launch the product? What concerns should the client take into consideration before deciding to launch. At the conclusion of the case you will need to present your team's recommendation and rationale.

Case Tracker

- **Led By**: Candidate
- **Industry**: Pharma
- **Level of Difficulty**: Medium
- **Case Type**: New Product Launch, Market Sizing

Fit Questions

- What criteria are you using to evaluate the organization for which you hope to work?
- Describe a time you were creative in an academic setting.
- Describe a time you had to influence somebody you did not have authority over.

Guide To Interviewer

This is a candidate led case with 3 key components (details on next page).

The candidate should create a structured approach to respond to the prompt, laying out the actions the project team would need to take.

If the candidate struggles to organize his/her thoughts and structure the problem, the interviewer should prompt with a question (e.g., How big would the market need to be to make the product viable?) The candidate should quickly get to the mechanics of market size estimation and develop a business case.

Case 12: Botox

Clarifying answers and case guide

Clarifying answers to provide

Product

Price
- The drug will be priced at $200/injection

Cost
- Remaining development and launch costs amount to approximately $5B
- Manufacturing marginal costs are expected to be quite small
- Annual marketing expense can be estimated at $1B

Attributes
- The product is a prophylactic injection given every 2 months
- Offers similar efficacy compared to market leading option but without any side effects
- When taken for migraines it does have some added skin care benefits

Customers

- # of typical migraine sufferers is difficult to approximate since migraines/headaches vary greatly
- Assume at least 10% of migraine sufferers are willing to try such a medicine

Guide to case

The case has 3 key components:

1. A high-level market sizing exercise for the migraine market, that will involve estimating the potential size of the target population
2. An assessment of the considerations for launching Botox in a new indication, targeting a new therapeutic area
3. A recommendation and report-out summarizing conclusions from the analysis

A successful candidate will go beyond the simple market and revenue sizing. He/she should discuss the pros and cons of a product launch, address additional considerations and make a solid recommendation as to how to proceed.

The interviewer should challenge the candidate to justify any assumptions or arguments made when raising considerations.

Case 12: Botox

Clarifying answers

Clarifying answers to provide (continued)

Market Sizing Information

Population
- This drug will initially be produced in the US, so the candidate should use world population (300 M)

% of population diagnosed with migraines
- Reasonable estimate of the number of migraine sufferers (20% of population)

% treated with OTC (Over The Counter) vs. prescription medications (i.e. severe migraine sufferers)
- Assume that about 50% of chronic migraine sufferers experience severe migraines and are willing to purchase prescription products

Expected share for the product:
- Due to the absence of side effects and the beneficial skin care properties assume 20%-40% of overall market in 5 years

Competition

- The market leading branded prescription oral migraine treatment lost patent protection last year
- Strong over-the-counter generic market for migraine treatments

Case 12: Botox

Key element to analyze/Math Question

Market Sizing Calculation

Notes to Interviewer

Variables	Source (given in case unless stated)	Calculations
US population		300 M
% of people who suffer from chronic headaches/migraines	Assumed	20%
% severe migraine sufferers	Assumed	50%
Total market size in # of patients	**(US pop.) x (% chronic sufferers) x (% severe)**	**30 M**
$Price/ injection		$200
# injections/year	**(1 injection/(2 months) x (12 month/year)**	**6**
Annual revenue per patient	**($ price/injection) x (# injections/year)**	**$1200**
Total annual market size in $	**(# patients) x (annual revenue per patient)**	**$36 B**
% Botox market share	Assumed	20% - 40%
Potential annual Botox market size in $	**(total market size $) x (% of market share)**	**$7-14 B**

Key Takeaway: Bottling products have higher profit margins

Case 12: Botox

Key element to analyze

How to Launch and Considerations

Notes to Interviewer

Branding

- The Botox brand carries a specific and somewhat controversial image which may impact patients' willingness to use the drug for a non-cosmetic indication
- By leaving both products under the same brand name, the client opens itself to more risk exposure should a new side-effect be discovered for one of the products. Since the migraine market will likely much larger than the existing cosmetic market, it bears a higher risk of adverse events which may then impact the existing market

Erosion/Cannibalization

- If physicians and consumers identify that the two products are essentially the same, it will be very challenging for the client to preserve the two separate markets. The client should investigate regulatory and other mechanisms for keeping the markets separate
- Launching this product at a much lower price-point than the cosmetic indication might cause substantial off-label usage, price erosion and cannibalization of the cosmetic segment

Case 12: Botox

Key element to analyze

How to Launch and Considerations (continued)

Notes to Interviewer

Competition	Other Considerations
• Given only comparable efficacy versus generic brands, insurance companies may not be willing to put the Botox treatment on formulary, and many migraine sufferers may be unable to afford the treatment out-of-pocket	• From a regulatory perspective it can be challenging to launch a new indication of an existing product to treat a different condition. The FDA may require the products to be labeled differently and limited to certain specialties, requiring separate marketing • In general, patients tend to be averse to injectable therapies, particularly when comparable oral treatments are available • The client could submit the product for approval in other countries in order to increase the potential market size • If the product can be shown to have better efficacy for a particular patient population, it may be preferable to target the indication and marketing

Case 12: Botox

Solution and Recommendations

Recommendations

- Given the projected $ size of the prescription migraine market, this looks like a promising market to enter for the Botox maker and would seem to offer very large revenue potential, and more importantly, profit potential.
- However, the product will face significant challenges if launched according to the company's proposed strategy and may cannibalize the highly profitable Botox cosmetic product.
- Launching under another brand name might allow the client to more effectively differentiate between the two uses when advertising the product to customers and physicians. It would also make it easier to price the products differently.

Risks

- **Regulatory**: The product has not been approved by FDA yet and its success is contingent on getting regulatory approvals
- **Branding**: Both branding with same name and different names have risks attached to them – reputational issues and lack of market traction respectively
- **Cannibalization**: Launching the new product at a lower price point may result in significant cannibalization of cosmetics segment

Next Steps

- Continue clinical trials and set-up regulation/ brand/ marketing-based barriers between the different markets
- Set up contracts with insurance companies to ensure that they will pay for the Botox migraine product after launch

Bonus / Guide to an Excellent Case

- A strong candidate will recognize the challenges (e.g., cannibalization and branding) of re-launching the brand for a new segment.

Case 13: Bike Helmets

Introduction

Case Prompt

Your client is a private equity firm that mainly works in the manufacturing industry. The firm completes a thorough due diligence including but not limited to examining expected demand and projected profits when deciding whether or not to purchase a company. They are considering purchasing a firm that makes bicycle helmets and accessories. You have been hired to determine whether or not they should purchase this firm.

Case Tracker

- **Led By**: Candidate
- **Industry**: Manufacturing
- **Level of Difficulty**: Easy
- **Case Type**: Private Equity, Market Sizing

Fit Questions

- How would you describe the best manager you ever had?
- Describe a situation where you failed. What did you learn about yourself and how did you change as a result?
- Tell me about your reasons for selecting this industry

Guide To Interviewer

This case is really designed to see how the candidate thinks. The candidate needs to make assumptions and justify them throughout.

A good candidate will be able to defend the assumptions made in the face of questions challenging the assumptions from the interviewer.

The market sizing portion should take into account as many factors as possible.

A strong candidate will outline the factors he or she wants to consider, develop criteria for consideration, and then attribute assumptions for each of those factors.

If the analysis is too simple, the interviewer should push back on the candidate to consider more factors.

Case 13: Bike Helmets

Clarifying answers and case guide

Clarifying answers to provide

Company

- The company only sells its products in the U.S.
- Revenue mix from the 2 product lines is split 50/50
- The company currently has 70% market share across the two product lines
- They have a good relationship with their suppliers
- The company was originally in the high-end of the market, but now is in the mass market

Market

- Most new entrants have been in the high-end of the market
- There are different product lines for high-end and mass market
  - High-end = 40% of market
  - Mass market = 60% of market

Guide to case

The final market size in dollars should be benchmarked against other industries or within the context that it is of the order of magnitude in the billions of dollars.

In the end, the recommendation is flexible, but if the bike company is moving more heavily into a higher margin, not as competitive, and still-growing low end of the market, this would most likely be an attractive investment.

Case 13: Bike Helmets

Clarifying answers

Clarifying answers to provide (continued)

Helping the Candidate Develop Market Sizing Assumptions

- *If the candidate asks "Is the overall bike helmet market growing?" Ask him/her "what do you think?" and make them justify their answer. Ask him/her to provide a percentage growth or decline (a range is okay)*
    - Sample answer: "I believe the bike helmet market is growing because people are exercising more because of health concerns, gas prices are increasing rapidly so more people are using bikes instead of driving"
- *If the candidate asks where the company distributes its product, ask them back "Where do you think?"*
    - Sample answer: Specialty stores, Sports Authority, Wal-Mart, Target…
- *The products are distributed mainly through specialty stores, but ask the candidate "what are the risks of selling at Wal-Mart?"*
    - Sample answer: Buyer power squeezes the profit margins for the bike company
- *What is more profitable, selling to the mass market or selling in specialty stores*
    - Sample answer: Selling to the mass market is more profitable because of lower distribution costs
- *At some appropriate point during the interview, ask the candidate to determine the annual revenue of the company (market sizing)*
    - A good trick on this part is to realize that since the revenue mix is 50/50, they only have to size one of the product lines, and then double their answer at the end. It is easier to size the bike helmets, because accessories is a very broad category
    - There is no "right way" to size the market, but here are some points to consider: Age , Income, Urban/rural , Bike helmet laws, Delivery

The candidate should size the entire market and then take 70% of the total market, since that's the company's share.

Case 13: Bike Helmets

Key element to analyze/Math Question

Market Sizing Calculation

Notes to Interviewer

Variables	Source (given in case unless stated)	Calculations
US Population	Assumed	320 M
% of population that rides bikes	Assumed	75%
% of bike riders that wear helmets	Assumed	75%
# of helmets bought per year	Assumed	.5
Total market size in # helmets	**(US pop.) x (% bike riders) x (% wear helmets)**	**90 M**
Price per helmet	Assumed	$40
Annual revenue from helmets	(helmet market size) x (price of helmet)	$3.6B
Annual revenue from accessories	(accessories revenue) = (helmet revenue)	$3.6B
Total annual market size in $	**(helmet revenue) + (accessories revenue)**	**$7.2B**
Bike company market share		70%
Bike company annual revenue	**(total market size $) x (% of market share)**	**$5.1B**

Key Takeaway: The company represents an attractive opportunity given the relatively large market size and market trends

Case 13: Bike Helmets

Solution and Recommendations

Recommendations

- The recommendation will ultimately depend on the assumptions made by the candidate in sizing the market
- If the company is moving into a higher margin, lower competition, and growing market then this would be an attractive investment for the private equity firm, but it should be noted that the price paid for company will play a huge part in determining the attractiveness of the overall investment

Risks

- The risks should be based around the assumptions made by the candidate and changes in various assumptions could have different impacts on the profitability and investment potential for the private equity firm
- 70% market share may be unreasonable to assume in perpetuity as more competition enters such an attractive market
- Potential for private label brands to compete in the mass market and take away market share or drive down margins

Next Steps

- Deep dive into competitive landscape (including international competitors) to confirm market share assumptions
- Investigate synergies with other investments made by the PE firm

Bonus / Guide to an Excellent Case

- A strong candidate will ensure that he/she's spending time on brainstorming along with completing the market sizing; and walking the interviewer through his/her analysis throughout the case

Case 14: Skin Care Market (Deloitte)

Introduction

Case Prompt

Our client is a $5 Billion private European manufacturer of medicinal products. The client licenses new medicines from research companies and sells their products through both traditional European wholesale distributors as well as direct contracts with European hospitals that allow them to cross-sell their products and expand their product footprint.

The client's existing manufacturing footprint is in urban locations close to their customers resulting in higher overhead costs compared to the competition. However, they are able to command a price premium in this market due to high quality products, excellent service, and speed to market. They currently own 10% of the European market, a highly fragmented, but growing industry.

They have an aggressive growth target of doubling their top line within the next 5 years and are thinking about entering a new market, consumer skin care, due to the following attractive characteristics:

- Wide array of products treating acne, hair loss, wrinkles, infections, fungus, psoriasis, and oily skin.
- Highly fragmented, $30B global market with Lotions, Ointments, and Creams making up 80% of the products.
- Two major channels: i) Physician prescriptions (sold through pharmacies) and ii) Over-the-Counter (sold through retail outlets).
- Significant convergence with more products being sold over-the-counter placing pricing pressure on prescription products in an already low-margin business.

Your team has been called in and asked to lead our client through the analysis and decision processes of how best to proceed with this decision.

Case Tracker		
	• **Led By**: Interviewer	• **Level of Difficulty**: Medium
	• **Industry**: Cosmetics	• **Case Type**: New Market Entry

Case 14: Skin Care Market (Deloitte)

Key elements to analyze

Question #1

What factors should they consider in deciding whether to enter the European Consumer Skin Care market?
[Interviewer Note: Provide Data Sheet after Question #1]

Notes to Interviewer

A good answer will demonstrate the candidate's understanding of market attractiveness. This would include things such as fragmentation of
competition, size and growth of the market, customer options (e.g. substitutes and product differentiation) and purchasing power, and regulatory considerations (e.g. prescription coverage, etc.).

A great answer will also examine how this market fits with the company's capabilities and strategy. Is the market large enough to get them closer to their goal of doubling top line growth in the next 5 years ($5 -> $10B)? Are the products similar enough to be considered a core competency or is this completely new? Is there existing manufacturing capacity or will they need to build? Have they considered alternative growth options that could be more in-line with their existing strategy.

They should also consider the implications of entering a low-margin business when their existing product portfolio commands price premiums. Are they willing to trade-off top-line growth for lower profit margins?

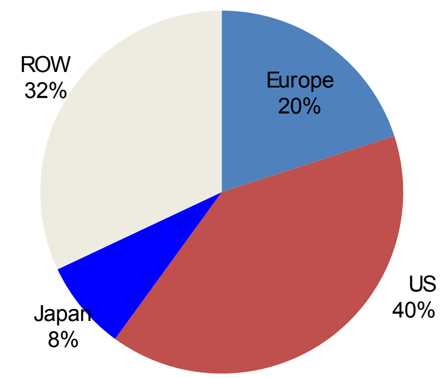
Case 14: Skin Care Market (Deloitte)

Data Sheet (to be handed to the candidate)

Global Skin Care Market = $30B
(7% CAGR)

	Branded	Generic	
OTC	$10B (8% CAGR)	$10B (12% CAGR)	$20B (10% CAGR)
Prescription	$5B (3% CAGR)	$5B (5% CAGR)	$10B (4% CAGR)
	$15B (5% CAGR)	$15B (8% CAGR)	

Global Skin Care Market Share ($30B)



Basis of Competition

	Branded	Generic
OTC	▪ Efficacy ▪ Brand Recognition ▪ Marketing	▪ Price ▪ Product line breadth ▪ Services/ unique packaging
Prescription	▪ Efficacy ▪ Physician Relationships ▪ Speed to Market	▪ Price ▪ Reliability ▪ Specialization (unique attributes)

Global Skin Care Market Characteristics

	Growth Rate	Characteristics
Europe	5%	▪ OTC competing with prescriptions ▪ Highest margins
US	10%	▪ OTC competing with prescriptions ▪ Industry consolidation; declining margins
Japan	(2%)	▪ Low population growth ▪ High barriers to entry
Emerging	30%	▪ Highly Price Sensitive ▪ Low Margins

Case 14: Skin Care Market (Deloitte)

Key elements to analyze

Question #2

Based on the client background and Data Sheet provided, how would you advise the client in developing a European channel strategy (Prescription, OTC, or Both?) and product strategy (Branded or Generic) ?

Notes to Interviewer

A good answer would take into account the characteristics of each channel (size, growth rates, basis of competition) as well as the client's strengths (strong physician relationships, brand quality, speed to market) to determine the pros and cons of each option. For example, it is expensive to build brands (advertising, marketing, etc.) and with the convergence of OTC and Prescription putting pricing pressures on Prescription, they should consider whether branded products will continue to command a premium.

A great answer would also use information from the Data Sheet to make a hypothesis. For example, the client's high manufacturing costs (as mentioned in the case) would make it difficult for them to compete in the generic/Private Label market even though this is a growing area. If growth was strong enough, it may be worth exploring moving manufacturing facilities to lower cost areas. However, this could impact their physician relationships.

They should also consider the goal of doubling revenue in the next 5 years and which channels will help to achieve that goal. While the branded prescription market may fit their existing capabilities, it is the smallest and slowest growing market. OTC on the other hand, may better support their top line goals

Case 14: Skin Care Market (Deloitte)

Key elements to analyze

Question #3

Given the client's current capabilities and aggressive growth target, if they decide to enter this market, what factors should drive their decision to explore other Geographic markets versus staying in Europe?

Notes to Interviewer

A good answer would point out that Europe is a small portion of the Global Market (20%) with stagnated growth (5%) while the US makes up 40% of the market with a 10% growth rate. They may also consider the fact that the larger size, higher growth markets (US and Emerging) also have the lowest margins which may not play into their higher cost model. Other considerations are barriers to entry, competition in each country, and the increased cost and complexity of distributing product overseas.

A great answer will also point out that Europe is only 20% of the $30B industry ($6B), broken into four channels. Even if they owned the entire Generic OTC market (which is the largest channel), assuming the geographical proportions hold across channels, they would have 20% of a $10B market ($2B) which doesn't even get them to half of their growth target. This would tell you that you would need to be a significant global player to come even close to your goals or at least pursue additional opportunities simultaneously.

Case 14: Skin Care Market (Deloitte)

Key elements to analyze

Question #4

With the limited information and data available about the client and the consumer skin care industry, do you think expansion into this market is a good idea?

Notes to Interviewer

A good answer would defend a single position one way or the other. They might take into consideration that this is a highly fragmented market with relatively strong growth (7% CAGR) and which will provide them with the opportunity to break into larger markets in other geographic regions once they get a foothold in Europe. The products seem to align with the manufacturing capabilities (lotions, ointments, and creams) and sales channels (Physicians). On the other hand, they might indicate that this is not an attractive market because their current capabilities are best at Branded Prescriptions, which is the smallest and slowest growing part of the industry. As a result, it will not help them achieve their revenue targets in any significant way. Or they may point out that this is a lower margin business which will lower overall profit margins.

A great answer would weigh both the pros and the cons before taking a position. They may also ask what the alternative investment options are. They currently enjoy good margins as a large player in a fragmented industry. Should they explore more options there?

Case 15: Great Burger (McKinsey)

Introduction

Case Prompt

Let's assume our client is Great Burger (GB) a fast food chain that competes head–to-head with McDonald's, Wendy's, Burger King, KFC, etc. GB is the fourth largest fast food chain worldwide, measured by the number of stores in operation. As most of its competitors do, GB offers food and "combos" for the three largest meal occasions: breakfast, lunch and dinner. Even though GB owns some of its stores, it operates under the franchising business model with 85% of its stores owned by franchisees (individuals own & manage stores and pay a franchise fee to GB, but major business decisions e.g. menu, look of store, are controlled by GB).

As part of its growth strategy GB has analyzed some potential acquisition targets including Heavenly Donuts (HD), a growing doughnut producer with both a US and international store presence. HD operates under the franchising business model too, though a little bit differently than GB. While GB franchises restaurants, HD franchises areas or regions in which the franchisee is required to open a certain number of stores.

GB's CEO has hired McKinsey to advise him on whether they should acquire HD or not.

Case Tracker

- **Led By**: Interviewer
- **Industry**: Fast Food
- **Level of Difficulty**: Hard
- **Case Type**: Acquisition

Case 15: Great Burger (McKinsey)

Key elements to analyze

Question #1

What areas would you want to explore to determine whether GB should acquire HD?

Notes to Interviewer

Stand alone value of HD

- Growth in market for doughnuts
- HD's past and projected future sales growth (break down into growth in number of stores, and growth in same store sales)
- Competition – are there any other major national chains that are doing better than HD in terms of growth/profit. What does this imply for future growth?
- Profitability/profit margin
- Capital required to fund growth (capital investment to open new stores, working capital)

Management team/cultural fit

- Capabilities/skills of top, middle management
- Cultural fit, if very different, what % of key management would likely be able to adjust

Synergies/strategic fit

- Brand quality similar? Would they enhance or detract from each other if marketed side by side?
- How much overlap of customer base? (very little overlap might cause concern that brands are not compatible, too much might imply little room to expand sales by cross-marketing)
- Synergies *(Note to interviewer: do not let candidate dive deep on this, as it will be covered later)*

Synergies/strategic fit

- GB experience with mergers in past/experience in integrating companies
- Franchise structure differences. Detail "dive" into franchising structures. Would these different structures affect the deal? Can we manage two different franchising structures at the same time?

Case 15: Great Burger (McKinsey)

Key elements to analyze

Question #2

The team started thinking about potential synergies that could be achieved by acquiring HD. Here are some key facts on GB and HD. (*Note to interviewer: show candidate Exhibit #1)*

What potential synergies can you think of between GB and HD?

Notes to Interviewer

Lower costs

- Biggest opportunity likely in corporate SG&A by integrating corporate management
- May be some opportunity to lower food costs with larger purchasing volume on similar food items (e.g., beverages, deep frying oil), however overlaps may be low as ingredients are very different
- GB appears to have an advantage in property and equipment costs which might be leverage-able to HD (e.g., superior skills in lease negotiation)

Increase revenues

- Sell doughnuts in GB stores, or some selected GB products in HD stores
- GB has much greater international presence thus likely has knowledge/skills to enable HD to expand outside of North America
- GB may have superior skills in identifying attractive locations for stores as its sales/store are higher than industry average, where as HD's is lower than industry average – might be able to leverage this when opening new HD stores to increase HD average sales/store
- Expand HD faster then it could do on own – GB as a larger company with lower debt may have better access to capital

Case 15: Great Burger (McKinsey)

Key elements to analyze

Question #3

The team thinks that with synergies, it should be possible to double HD's US market share in the next 5 years, and that GB's access to capital will allow it to expand number HD of stores by 2.5 times. What sales/store will HD require in 5 years in order for GB to achieve these goals? You should assume:

- Doughnut consumption/capita in the US is $10/year today, and is projected to grow to $20/year in 5 years
- For ease of calculation, assume US population is 300 M
- Use any data from Exhibit #1 you need

Notes to Interviewer

Variable	Source (given in case unless stated)	Value
HD sales	Exhibit 1	$700M
US market	(Consumption per capita) x (population)	$3B
HD market share	**(HD sales) / (US market)**	**23%**
Note to interviewer: At this stage, tell the candidate to round to 25% for the sake of simplicity		
US market in 5 years	(Projected consumption per capita) x (population)	$6B
HD sales in 5 years if double market share	(Current share, calculated as 25%) x (double) x (US market in 5 years)	$3B
# of stores in 5 years	(Current # stores from Exhibit 1) x (2.5)	2,500
Sales/store in 5 years	**(HD sales in 5 years) / (new number of stores)**	**$1.2M**

Note to interviewer - an optional probing question is to ask:

- Does this seem reasonable?

A good response would be:

Yes, given it implies less than double same store sales growth and per capita consumption is predicted to double

Case 15: Great Burger (McKinsey)

Key elements to analyze

Question #4

One of the synergies that the team thinks might have a big potential is the idea of increasing the businesses' overall profitability by selling doughnuts in GB stores. How would you assess the profitability impact of this synergy?

Notes to Interviewer

Basic profitability analysis

- Calculate incremental revenues by selling doughnuts in GB stores (calculate how many doughnuts per store, time s price per doughnut, times number of GB stores)
- Calculate incremental costs by selling doughnuts in GB stores (costs of production, incremental number of employees, employee training, software changes, incremental marketing and advertising, incremental cost of distribution if we can not produce doughnuts in house, etc.)
- Calculate incremental investments. Do we need more space in each store if we think we are going to attract new customers? Do we need to invest in store layout to have in house doughnut production?
- Other reasonable answers are acceptable

Cannibalization

- If the candidate dives deep in the incremental revenue piece by taking into account cannibalization, what would be the rate of cannibalization with GB offerings? Doughnut cannibalization will be higher with breakfast products than lunch and dinner products, etc.
- One way to calculate this cannibalization is to look at historic cannibalization rates with new product/offering launchings within GB stores
- Might also cannibalize other HD stores if they are nearby GB stores – could estimate this impact by seeing historical change in HD's sales when competitor doughnut store opens near by
- Other reasonable approaches to calculating cannibalization are acceptable

Case 15: Great Burger (McKinsey)

Key elements to analyze

Question #5

Note to interviewer: Only do this question if you feel you did not get a good read with the first quantitative question, or if you have ample time left for the case. If you skip this question, tell the candidate the following: The team has calculated that the incremental profit per GB store from selling HD doughnuts would be $15K.

What would be the incremental profit per store if we think we are going to sell 50 thousand doughnuts per store at a price of $2 per doughnut at a 60% margin with a cannibalization rate of 10% of GB's sales?
(*Note to interviewer: show candidate Exhibit #2. Also, if necessary, explain the "Cannibalization Rate" to the candidate)*

Notes to Interviewer

Incremental profit	= contribution from HD sales less contribution lost due to cannibalized GB sales = 50K units x $2/unit x 60% margin – 300K units x 10% cannibalization x $3/unit x 50% margin = $60K – 45K = 5K incremental profit/store

Case 15: Great Burger (McKinsey)

Key elements to analyze

Question #6 (Synthesis)

You run into the CEO of GB in the hall. He asks you to summarize McKinsey's perspective so far on whether GB should acquire HD. Pretend I am the CEO - What would you say?

Notes to Interviewer

- *Note to interviewer: This is an example response. Good answers may vary, depending on answers candidate gave in questions 1-4, and whether or not they completed all previous questions.*

- Early findings lead us to believe acquiring HD would create significant value for GB, and that GB should acquire HD
    - We believe it is possible to add $15k in profit/GB store by selling HD in GB stores. This could mean $50 million in incremental profit for North American stores (where immediate synergies are most likely given HD has little brand presence in rest of world.
    - We also believe there are other potential revenue and cost synergies that the team still needs to quantify

- Once the team has quantified the incremental revenues, cost savings, and investments, we will make a recommendation on the price you should be willing to pay

- We will also give you recommendations on what it will take to integrate the two companies in order to capture the potential revenue and cost savings, and also to manage the different franchise structures and potentially different cultures of GB and HD

Case 15: Great Burger (McKinsey)

Exhibit #1 (to be handed to the candidate)

Exhibit #1

Stores	GB	HD
Total	**5,000**	**1,020**
- North America	3,500	1,000
- Europe	1,000	20
- Asia	400	0
- Other	100	0
Annual Growth in Stores	**10%**	**15%**

Financials	GB	HD
Total store sales	$5,500M	$700M
Parent company revenues	$1,900M	$200M
Key expenses (% sales)		
– Cost of sales *	51%	40%
– Restaurant operating costs	24%	26%
– Restaurant property & equipment costs	4.6%	8.5%
– Corporate general & administrative costs	8%	15%
Profit as % of sales	6.3%	4.9%
Sales/store	$1.1M	$0.7M
Industry average	$0.9M	$0.8M

* Variable costs, mostly food costs

Case 15: Great Burger (McKinsey)

Exhibit #2 (to be handed to the candidate)

Exhibit #2

Sales and Profitability per store	
Units of GB sold per store	300,000
Sales price per unit	$3
Margin	50%
Units of HD sold in GB stores	50,000
Sales price per unit	$2
Margin	60%
Cannibalization Rate of HD products to GB products	10%

Case 16: Cosmetics Company (Capgemini)

Introduction

Case Prompt

The client is the North American CEO of a global personal and home care products company. He has hired Capgemini Consulting to turn around the North American business from loss to profitability within two years. We've scheduled the final presentation with the board this afternoon, but the project team is stranded at an airport unable to make the presentation. You are asked to step in and make the presentation instead.

Case Tracker

- **Led By**: Interviewer
- **Industry**: Cosmetics
- **Level of Difficulty**: Medium
- **Case Type**: Turnaround

Case 16: Cosmetics Company (Capgemini)

Clarifying answers

Clarifying answers to provide

Internal Analysis

- **Revenue Streams**: Existing & new products
- **Cost Drivers**: R&D, manufacturing, operations
- **Other considerations**: Supply chain, channel strategy, financial situation, org structure, core competencies

Industry Analysis

- **Competitors**: Who are the main competitors? To what customer segments do they cater?
- **Industry Rivalry**: How intense is the rivalry in the cosmetics industry? Is any segment of the industry more competitive than other? Are there any specific trends in industry rivalry (consolidation, price wars, etc.)?
- **Retailers**: Through what retail channels are the products sold? What is their relative power position?

Customer Analysis

- **Consumers**: What are the different consumer segments and what are their relative sizes? Who are the client's main consumers? How saturated is that segment?
- **Trends**: Are consumer tastes changing towards or away from the client's products?

Case 16: Cosmetics Company (Capgemini)

Key elements to analyze

Question #1

You have come up with a good structure to approach the problem. I'm going to give you 3 charts and ask you to take a few minutes to assess and digest the information, then ask you for your observations and analysis.

Notes to Interviewer

Exhibit #1

- Women represent the lion's share of consumption in personal care products across all three regions
- Male consumption will remain small although the 55+ age group will exhibit stronger growth than other male age groups
- Female Baby Boomers (born between 1945 to 1965) represent the major source of growth, generating8.63%, 5.31% and 5.98% in growth for Mexico, USA and Canada respectively

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Exhibit #2

- A direct co-relationship exists between share of wallet and consumer perception of need
- Generally speaking, the more a spending category is perceived as a necessity, the larger the spending category represents in terms of share of wallet
- According to the latest census data in Canada, Household Products and Personal Care represent 4.5% and 1.7% of share of wallet respectively

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Exhibit #3

- Companies that have dedicated channel strategies tend to focus primarily on Direct Selling. Often this is a result of the desire for maximum consumer interaction when a company must choose a primary distribution channel
- There is a trend for companies to diversify, both in terms of product categories and channel strategies. This diversification is the result of different products requiring distinct channels and placements

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Case 16: Cosmetics Company (Capgemini)

Key elements to analyze

Notes to Interviewer (continued)

Exhibit #1

- Baby Boomers drive growth by virtue of their sheer numbers and also by their high spending powers through wealth accumulation and inheritance
- Generation Xers (those born between 1965-1985) are underrepresented in terms of spending due to their relatively small numbers, with the exception being Mexico, which has a larger population growth between 1965-85 compared with Canada and the US
- Echo Boomers (those born between 1985-1995) will play a greater role beyond 2010 but in the short term they should be watched carefully as a consumption group

Exhibit #2

- Taxes, housing and food consume the largest share of wallet
- From a marketing perspective, the ability to move a product category up the necessity axis is essential to capture larger shares of wallet

Exhibit #3

- Competitors who use a diverse channel strategy employ a wide variety of distribution channels. For example: Estee Lauder sells their products in prestigious retail store, company-run salons and brand websites
- Competitors who have a dedicated channel strategy use a primary channel to convey their products to consumers. For example: The Body Shop's main customer-facing channel is their network of over 2,000 stores worldwide, however they also have a web channel in North America and a direct selling force

Case 16: Cosmetics Company (Capgemini)

Key elements to analyze

Question #2

OK, you have those 3 pieces of data that you can take to the CEO, but what other considerations should you inform the CEO need further analysis? Make a list of these considerations.

Notes to Interviewer

- In-house manufacturing or Outsource:
  - Pros and cons
  - Key constraints and criteria to consider
  - Competitor's actions regarding the same
- Customer:
  - Impact of country of origin on customer perception relating to marketing and brand strategy
- Location:
  - Does our distribution network design support future growth considering all costs?
  - What distance span will optimize service and costs
- Decision Making Process:
  - What is the current state decision making process with regards to Make/Buy considerations?
  - What should be the decision making process?
  - Who is responsible and accountable for Make/Buy decisions?
- Scalability:
  - How will distribution centers scale up based on growth projections?
  - How many distribution centers will be required?
  - What is the optimal range per distribution center?

Case 16: Cosmetics Company (Capgemini)

Key elements to analyze

Notes to Interviewer (continued)

- Costs:
  - Differences in costs between various suppliers – both in-house and outsourced
  - Does the organization have a standardized measure of cost that is uniform across regions to enable meaningful comparison of costs?
  - Consistency in applying accounting formulae across the group
  - Duplicate costs?
  - Impact of asset under-utilization on total delivered costs formula?
  - Does client have the means to measure the cost of distribution consistently across regions?
  - Do we take into consideration the total delivered cost in our current network design?
  - What other costs should we include?
- Information:
  - Does client have the necessary information infrastructure to measure enterprise-wide operational indicators such as inventory levels, costs, services levels, etc.?
  - Is this information accessible across the organization and is this information updated in real-time?
  - Is this information comparable across regions?

Case 16: Cosmetics Company (Capgemini)

Solution and Recommendations

Recommendations	Risks	Next Steps
• The client should focus on women who comprise lion's share of consumption but should not ignore growth in the 55+ male group. Particularly among women, there are geographic differences within the North America region that must be taken into consideration. • The client should develop deep knowledge of customer needs , perception and spending patterns in order to capture an increased share of the wallet. Capturing an increased share of the wallet is critical for driving long-term, sustainable growth. • Client is misplaced in terms of its channel strategy. Given its large number of product categories, it should have a more diverse distribution channel	• The market may not continue growing at the same rate as predicted or may enter a period of decline • Threat of substitute products and changing customer trends can make the client's products less 'necessary'	• Mentioned in the recommendations – key focus here will be to outline the steps that may be required for following the recommendations (e.g. investment into customer research, marketing spend for changing segment focus, deep dive into diversifying the distribution channel)

Bonus / Guide to an Excellent Case

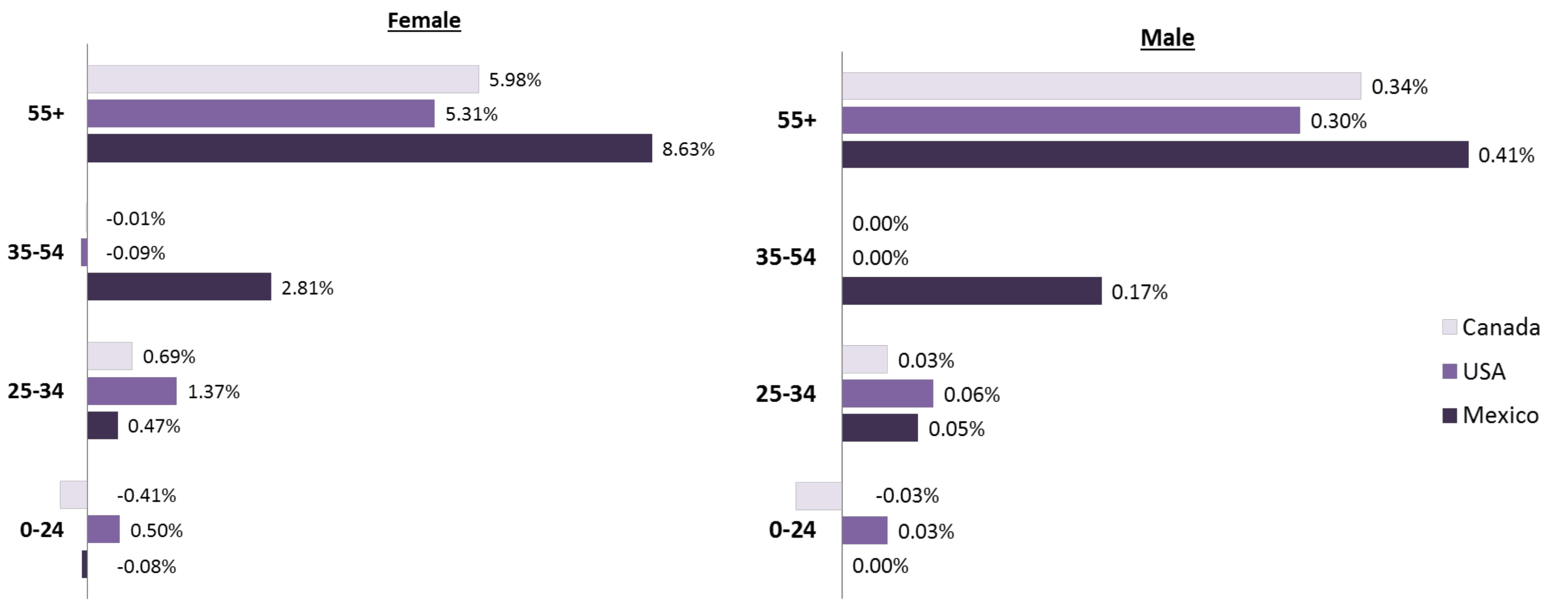
Strong candidates may also mention:

- Ensure product strategy is geared towards appropriate customer segments
- Research customer needs to capture larger shares of wallet
- Investigate options for diversifying distribution channels in an efficient manner with thorough cost-benefit analysis

Case 16: Cosmetics Company (Capgemini)

Exhibit #1 (to be handed to the candidate)

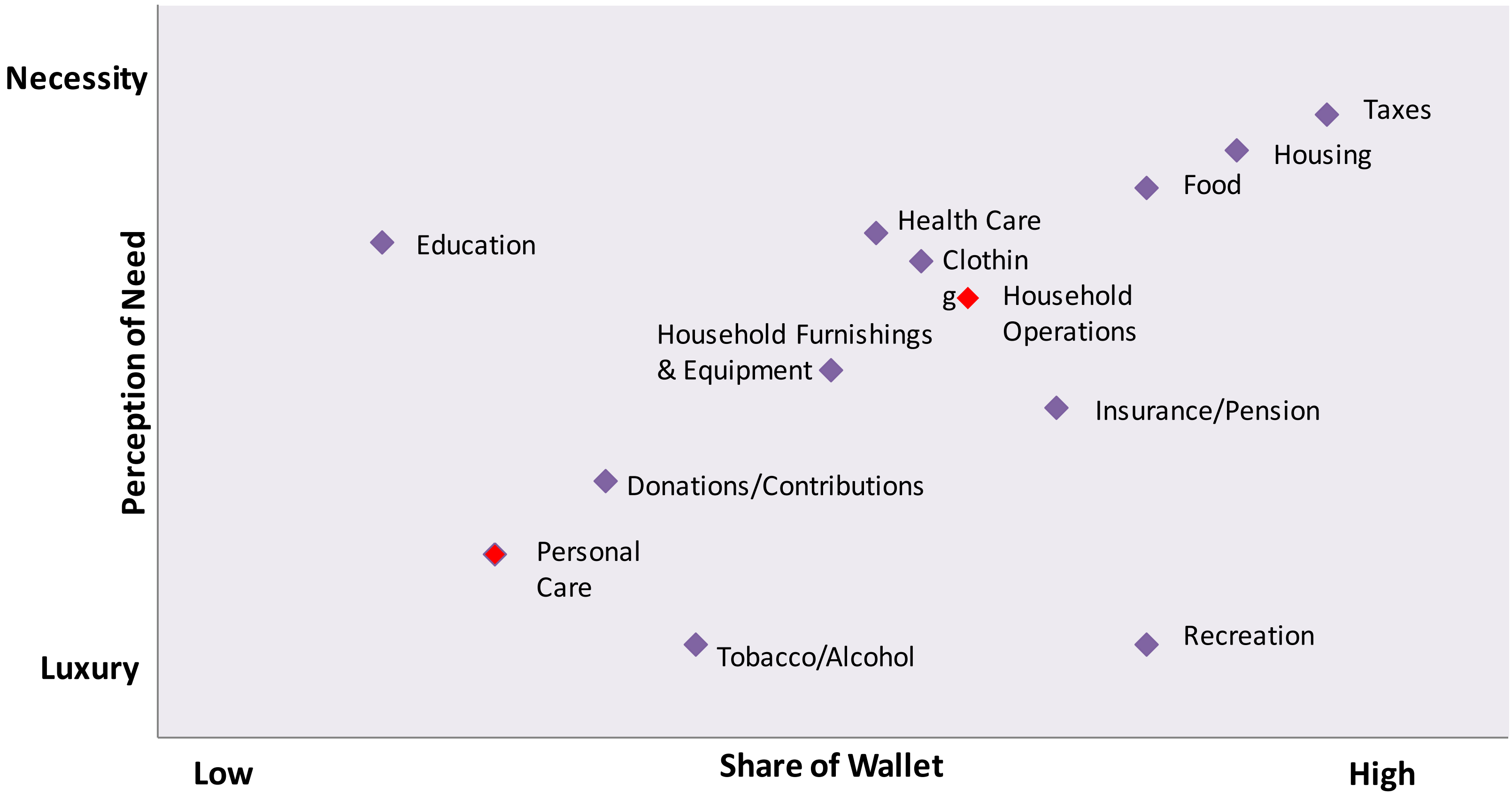
2009-2014 Growth in Personal Care Consumption by Age Group



Case 16: Cosmetics Company (Capgemini)

Exhibit #2 (to be handed to the candidate)

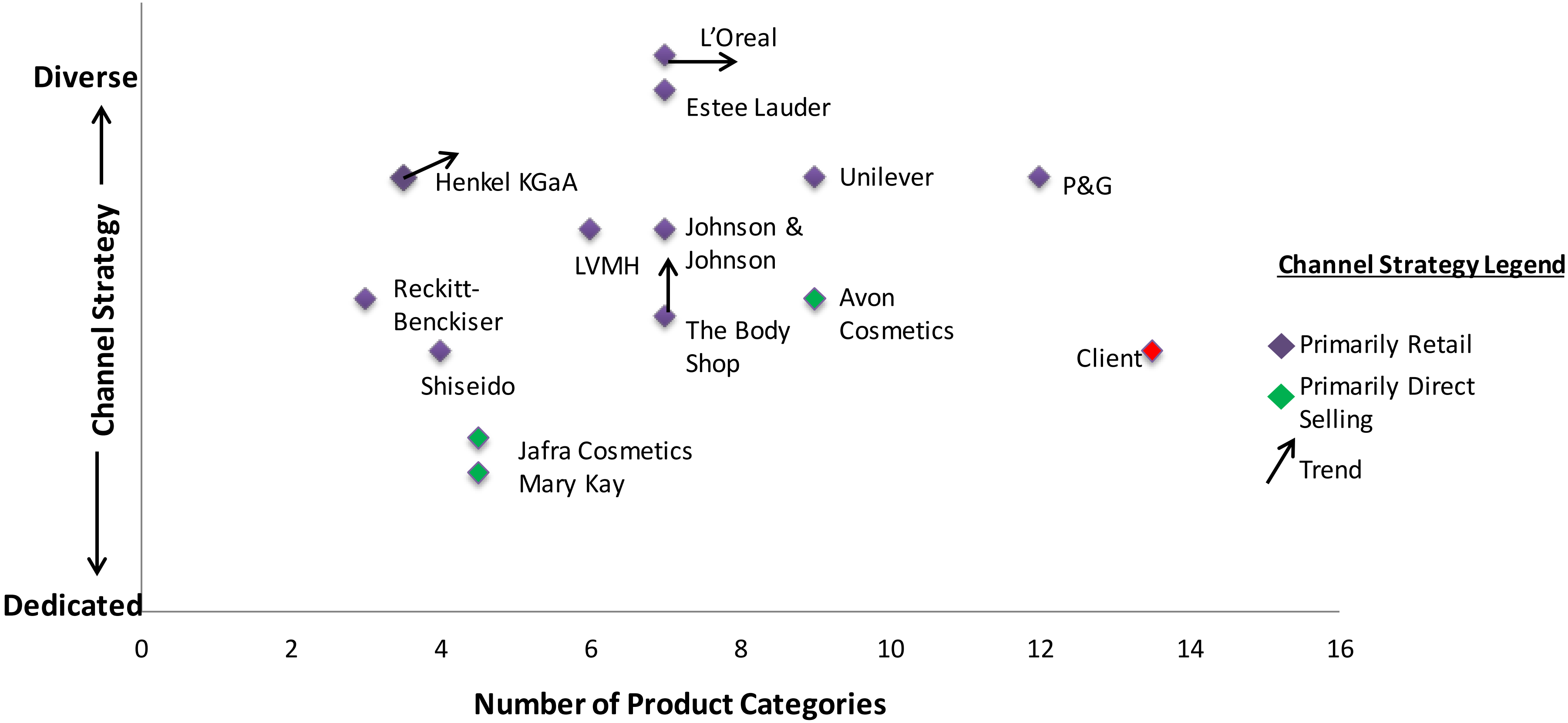
Ranking Major Household Spending Categories by Share of Wallet and Perception of Need



Case 16: Cosmetics Company (Capgemini)

Exhibit #3 (to be handed to the candidate)

Product-Channel Strategy Map



Other Case Resources

Please see NYU Stern MCA website for more casing resources:

- Previous year casebooks
- Casebooks from other schools
- Casing videos
- Web-based tools for casing preparation
- Cheat-sheets and interview preparation resources
- Bootcamp videos
- Case workshops (internal and external)

and more..

Practice cases from company websites:

Firm Name	Link to practice cases
BCG	http://careers.bcg.com/join/practice_cases.aspx
McKinsey	http://www.mckinsey.com/careers/join_us/interview_prep
Bain	https://www.joinbain.com/apply-to-bain/interview-preparation/default.asp
Deloitte	http://public.deloitte.com/media/caseinterviews/strategy-operations-mba-advanced-degree-program-interactive-case-interview-preparation-tool.html

MasterTheCase.com

Top Consulting Interview Prep