MGMT 701 Strategy and Competitive Advantage - Fall 2012

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This class is designed to be an **upper-level course in strategy.** It provides some new concepts as well as a reinforcement of core strategy. We start out with the question of how value can be created and, more importantly, appropriated. This leads to the general issue of how competitive advantages are built. Class discussions will often center on notions of complementarities and fit. We will carefully lay out choices that decision managers can make to sustain advantage. We will also look at the challenged posed by industry, environmental/external changes.

Key Course Questions:

1. How attractive is the market for the product or service in which the firm competes?
2. What net advantage does the firm have relative to its competitors?
3. Looking forward, what factors are likely to impact the performance of the firm and the market in which the firm competes over time?

Students should form groups of 4-6 students in which to work on some of the course deliverables. You should form these groups on your own, but if you would like the TA to assist in helping you find a group, reach out to him directly.

Your grade will be composed of a few components and you have options on which and how many components to complete:

- Attendance and participation (20%)
- An in class individual exam on November 15th (25%) – Appendix four is an overview of this exam.
- Group case analyses also done in class on November 15th (10%)
- Group analyses due November 29th (20%) – See Appendix 1 and 2 to this Syllabus
- Individual take home quiz (25%) – optional if happy with "walking grade" – explained in class

If you are taking this course pass/fail (not even sure this is an option so check with the registrar) you should talk to me about which deliverables you need to do to receive a pass (you will only need to do some of the above).

Please consider this syllabus a draft. I may alter the topics and readings in response to a survey I will distribute in the first class meeting.

All overheads will be posted after each class on the Canvas site for this class. I also generally post a discussion summary.

Classroom Policies

Laptops, Smartphones, & Other Electronic Devices: Will allow these devices in the classroom with the agreement that the use does not impose on other students and that students will refrain from internet, e-mail, and other externally focused activities during class time inside of the classroom (feel free to leave the room to check e-mail, text, etc.). Abuse will impact your class participation score. That is, if you are obviously texting, doing emails or on line research or activities during class – your participation score will be lowered.

Attendance: Required and part of grade. I am in your court...I want you to succeed and understand that you have to manage classroom obligations in the context of family and career obligations. I get there are times when you may have to make conscious trade-offs. That said, there are students who manage to miss less class than others...their grades tend to be better.

A short note on proper citations

To most of you this will be probably self-evident, but I want to make sure that we all understand: Copying paragraphs from sources (magazine, newspaper articles, analyst reports etc.) without properly citing them is a SERIOUS offense! Properly citing means: if you copy word-by-word, you have to mark this by enclosing the copied text with quotation marks " " and citing the source. Even if you don't copy word-by-word, but you take someone else's idea, you have to indicate in a citation the source of that idea. This citation has to follow directly the idea (attach a footnote or an endnote). At the end of the paper, you should then list all sources that you have cited in the text.

Let me re-iterate: Non-proper citing is a very serious academic offense that in other courses has led professors to fail students and bring these students to the attention of the academic review board of the University. I think all of us want to avoid any such incident – and it is really easy to avoid such problems. Simply be careful in your papers that you attribute ideas/frameworks etc. that you use to their respective sources.

More Detailed Course Overview

In this course, we will develop a broad approach for evaluating the prospects for firm profits. We will look at many firms across a broad range of markets. We will spend some time on managerial and behavioral issues and/or institutional details – but keep in mind that the more granular we get, the more the information applies only in restrictive scenarios. We will derive the principles we apply mainly from microeconomic theory. As such, potential answers to questions posed in class will be subjected to the rigor of economic analysis to test their validity and applicability.

Below, I suggest a way to think about the structure of the course content. *However, it is important to recognize upfront that this class cannot be as perfectly organized as the outline suggests.* This is not accounting or statistics that begin with core, universally accepted principles, and then build to harder problems and applications. Instead, strategy is "messy" throughout, and we will be applying new tools and concepts to answer questions that arise throughout the course. A clean linear approach would deliver the false promise that this material works like a tool. This material is a lens that improves your analytical reasoning skills – you will be able to describe business situations in a more comprehensive, logical and structured way. However, in strategy, there is no equivalent of the option pricing formula. Strategic analysis is ambiguous, and to present it any other way is disingenuous.

Template for Strategy Evaluation

1. Market Attractiveness—Market level opportunities and constraints
   a. Analysis of the forces (**Porter's Five Forces**) affecting competition in a market
   b. What is the **structure of the market**?
   c. What advantages arise from being the **first-mover** in this market?

2. Firm assessment--Firm level opportunities and constraints
   a. What are the primary sources of a firm's **competitive advantage**?
   b. How **unique and valuable are the firm's resources**? How can additional resources be developed and acquired cost effectively by the firm?
   c. What **position** does or should the firm "occupy"?
   d. How well do firm-level choices and policies fit with its external environment?
   e. What, precisely, is the source of the firm's **leverage in the vertical chain** to which it belongs?
   f. What **financial metrics** support the above qualitative evaluation of the firm?
   g. How effectively does the firm engage its most critical human talent? How might the firm more effectively relate the **3 components of firm value**?

3. Sustaining performance over time
   a. How can advantage be sustained through time?
   b. What prevents other firms from imitating the strategies of successful first movers?
   c. Could we perform a **game theoretic analysis** of the responses of competitors to a firm's strategies and learn implications of these responses for strategic decisions?
   d. How should the firm weigh the risks and benefits from **investments in new resources and capabilities**, particularly when market conditions are highly uncertain?
   e. How should the firm address organizational issues such as slack and perverse incentives?

f. How might constituents affected by the firm's **negative externalities** utilize government and public opinion to diminish the firm's advantage? How does the firm manage in the context of producing nontrivial externalities?

The Seven Key Course Take Away Points:

STRATEGY: Adapting to the environment and guiding organizational actions with the aim of achieving leverage over customers and or suppliers and sustaining that leverage over time in order to achieve economic profits. Being cognizant of using "power" judiciously so as to maintain the quality of important relationships among players in the firm's ecosystem.

THINKING ALLOCENTRICALLY NOT EGOCENTRICALLY: If you are asked to consider why a firm takes an action (say it lowers the price of its product) you should consider the "direct effect" – what is the effect on the firm under consideration. However, the action will generate reactions and repercussions – those are often the critical impacts on the firm. Think about the world from the points of view of all constituents who affect the firm's value.

- Customers: What needs are customers seeking to satisfy? What dimensions of customer needs does the firm's product satisfy? What has changed since the firm took the action?
- Competitors: How will they react to the firm's actions? Under which conditions could they destroy the firm's competitive advantage?
- Entrants, substitutes, complementors? Does the firm's action generate any reaction or impact on these parties?
- Suppliers: What benefit do suppliers receive from dealing with the firm? Has that benefit changed? Include a deep consideration of human capital as a key supplier.
- Prospective acquirers or targets: In what ways are the firm's assets and resources more valuable to others then they are to the firm? What impact does the firm's actions have on parties the firm might want to acquire?

THINK VALUE CREATION AND VALUE CAPTURE: The most value creating businesses are not the ones winning zero-sum battles (one off transactions, exploiting workers, pounding on suppliers)... it is the businesses that discover win-win exchange opportunities -- transactions that simultaneously create "utility" for buyers, convert competitors to complementors, create opportunities for suppliers and of course, profits for the firm. The cornerstone of good strategy formulation is the value creation proposition. A viable value-creation proposition is a business concept that identifies attributes that consumers value and embeds those attributes in a product or service that costs less to produce than consumers are willing to pay. A superior value-creation proposition does this better than the value creation propositions of direct rivals, potential imitators, or producers of substitute goods. A firm with a superior value-creation proposition will capture more value than a firm with a weaker value creation-proposition even in the face of intense price competition that drives the economic profits of the marginal firms to zero.

STRATEGIC CHOICES ENTAIL TRADEOFFS: Effective strategists understand that it is rarely possible to beat your competitors on every dimension simultaneously. Good strategy usually entails making tradeoffs about the business unit's scope (i.e., horizontal and vertical boundaries); about how to compete (i.e., positioning); and about where to compete (i.e., target markets). Firms that outperform their competitors end up being "where the puck is" – they come up with fact based conjectures on where the market is going and they invest in the assets and capabilities suited to operating in that market.

THE IRON LAW OF STRATEGY: Your expectation should be that similarity breeds zero profits. As firms become more alike in their strategies, product offerings, positions, capabilities, and access to resources, competition intensifies and economic profits may be driven down zero – this could take many, many years or a few months – but it's a reasonable expectation.

GOOD STRATEGY IS OFTEN NOT FORMULATED WITH A HIGH DEGREE OF CERTAINTY: Good business strategy is typically formulated under conditions of considerable uncertainty and ambiguity. It requires that managers take a deep look into the future, but with an appreciation that history can repeat itself. Managers need to be aware that opportunities for resolving ambiguities and adjusting resource commitments accordingly are, to a degree, within their control and should be alert to opportunities to take advantage of this flexibility. The difficult thing about strategy is that each industry and each firm has idiosyncrasies that make it nearly impossible to generalize. The more exposure you get the better your intuition will get and you will learn where to put your "weights"--that is, which actions will have the biggest impact on the firm's profits.

FACT-BASED DIAGNOSIS, FOOTPRINTS AND THE IMPORTANCE OF ASKING WHY? The most persuasive analyses and diagnoses are those that are fact-based. Look for "footprints" or "fact patterns" even with fragmentary, imperfect data. The most powerful "engine" to get a deeper level of understanding of a complex, ambiguous situation is to identify fact patterns and then ask, "Why do I see these patterns?" This helps you begin the process of forming hypotheses about the causes of the fact patterns that you see and may even suggest additional analysis which may help confirm or disconfirm these hypothesis.

INDUSTRY ATTRACTIVENESS/STRUCTURE AND ADVANTAGE

9/6: Session 1: Class Cancelled - This class will be made up through shortened breaks and/or a make up class at a time to be determined

9/13: Session 2: Course Logistics, What is Strategy?

1. Porter, Michael E. 2008. "The Five Competitive Forces that Shape Strategy." *Harvard Business Review*, January, pp. 79-93.
2. *Strategy Essentials* (posted on Canvas), Chapters 2 and 3

Case: Progressive Corporation, 9-797-109

- What is the value of car insurance to the consumer?
- What are the economics of supply?
- Why does the industry make underwriting losses most years?
- How has Progressive's strategy evolved over time?
- What challenges does Progressive face in 200[illegible]?
- What would you recommend to CEO Glenn Renwick?

9/20: Session 3: Reviews of Market Structure and Positioning, What is low cost?

1. Milgrom, Paul, and John Roberts. 1992. Economics, Organization, and Management Chapter 4, pp. 108–116.
2. Collis, David J. and Michael G. Rukstad. 2008. "Can You Say What Your Strategy Is?" *Harvard Business Review*, April, pp. 82-90.
3. *Strategy Essentials*, Chapter 4

Cases: Crown Cork and Seal, 9-378-024

- Perform a Five Forces analysis on the tin-plated can industry
- The intensity of rivalry suggests that can makers are willing to cut prices. Why do customers backward integrate anyway?
- Explain how Connelly was able to increase the margins Crown earned on its output during his tenure. Address the following:
    - Product Line
    - Cost Reduction Activities
    - Plant Locations
    - Investment and R&D
    - Various Aspects of Customer Service
- Does Crown have an overall cost advantage or disadvantage relative to other can makers? Stated simply, Crown gave customer service. Given how competitive this industry was, it is likely that Crown's competitors also attempted to give good service. What is the meaning of customer service in this industry? Why is Crown able to succeed where other fail? How is Crown rewarded for giving customer service? (That is, where on the financials does the reward for customer service show up?)
- Is Crown's strategy imitable?

9/27: Session 4: Positioning and Tradeoffs

1. Porter, Michael E. 1996. "What is Strategy?" *Harvard Business Review* (November-December): 61–70.
2. *Strategy Essentials,* Chapter 5

Case: American Connector Company (A), 9-693-035

- How serious is the threat of DJC to American Connector Company?
- How big are the cost differences between DJC's plant and American Connector's Sunnyvale plant? Consider both DJC's performance in Kawasaki and its potential in the United States. Create a table such as the following:

ITEM	DJC	INDEX	DJC @ US	ACC
Raw Mat		0.6		
Product		0.6		
Raw Mat		1.1		
Packaging		0.8		
Labor (total)		1.0		
Electricity		1.0		
Depreciation				
Other				
Total				

- What do you learn from the above table?
- Diagnose the basis of ACC cost disadvantage. What factors is it due to (for example, product mix)
- How worrisome is the cost disadvantage?
- What should ACC do?

<u>VALUE CREATION AND CAPTURE</u>

10 / 4: Session 5: Competitor Analysis, Competitor Reactions and Value Creation, Value Appropriation, Components of Firm Value

1. Brandenburger, Adam M., and Barry J. Nalebuff. 1996. <u>Co-opetition</u> pp. 11–34.
2. Brandenburger, Adam, and Harborne Stuart. 1996. "Value-Based Business Strategy."
3. *Journal of Economics and Management Strategy* 5 (1): 5–24.
4. Introduction to Real Options (IVEY)
5. *Game Theory Notes* posted on Canvas

Case: Review Nucor at a Crossroads, 9-793-039 (you might have done this case in core strategy—hence, I say "review")

- Part of Nucor's traditional success can be attributed to the historical pattern of underinvestment by integrated steel makers. What might explain this underinvestment and how did it facilitate Nucor's early expansion and profitability?
- How have Nucor's "people policies" contributed to value creation . What made Nucor's competitive advantage difficult for other firms to imitate?
- How would you incorporate terminal value, timing, opportunity costs and option values into a cash flow analysis?
- Should Nucor count on increased demand once it enters the market? If so, who will buy the additional steel? If not, what does that imply for Nucor's ability to sell its output?
- The excerpt from exhibit 12B presented below indicates that Nucor will have lower operating costs than integrated mills — more so versus "unmodernized" mills than versus "modernized" mills. What does this imply for Nucor's ability to attract customers? What other factors should Nucor consider before making the investment?

Per Ton Costs	Modernized		Unmodernized	
	Hot-Rolled	Cold-Rolled	Hot-Rolled	Cold-Rolled
Competitor's Operating Costs	$261.50	$349	$300	$403
Nucor's Operating Costs	$225	$283	$225	$283
Net	$36.50	$66	$75	$120

- Finally, think about the timing of Nucor's investment decision. How might Nucor's ability to sell the new plant's output change in the near future? Is there any information not in the case that could help you make this determination?

Other preparation:

- Read excerpt on Coke and Pepsi "Concentrate" war (posted to Canvas).
- Research what happened to Dreamworks movie studio – at the very least "wiki" it.
- Strategy Essentials, Chapter 10

10/11: Session 6: Complementarities and firm boundaries

1. Hubbard, "Affiliation, Integration, and Information: Ownership Incentives and Industry Structure," Journal of Industrial Economics 52(2): 201-227
2. *Strategy Essentials,* Chapter 6 and 8

Case: The Walt Disney Company and Pixar Inc.: To Acquire or Not to Acquire? 9-709-462

- Which is greater: the value of Pixar and Disney in an exclusive relationship or the sum of the value that each could independently generate (making deals with companies each chose to along the way)?
- If the value is greater in an exclusive relationship – why ownership rather than contracting? What ongoing challenges do you perceive as likely?

SUSTAINING ADVANTAGE

10/18: Session 7: Strategic Inflection Points, Increasing Returns

1. *Strategy Essentials,* Chapter 7
2. Arthur, Brian W. 1996. "Increasing Returns and the New World of Business." *Harvard Business Review* (July-August): 101–109.
3. *Case*: Watch the documentary "Triumph of the Nerds". You can purchase this 3 part documentary (programs 1, 2 and 3) and watch it streaming at http://www.ambrosedigital.com/index.php?page=shop.product_details&flypage=shop.flypage_freebie&product_id=1689[illegible]&Itemid=[illegible]&vmcchk=1

   You are also likely to find it on YouTube as well as other sources if you search for "Triumph of the Nerds" – be sure to watch all three parts – each part is about 50 minutes long.

Case: Google, Inc. 9-[illegible]-036

- What were the key factors behind Google's early success?
- Do you expect the search business to become more concentrated (i.e., dominated by fewer firms)? Is search a winner-take-all business?
- In renewing its deal with AOL, could Google afford to pay AOL more than 100% of the revenue generated from AOL searches? How did Microsoft's maximum affordable bid for AOL's search traffic compare to Google's?
- Get up to date on Google through whatever sources you choose – what is impressive about Google? Anything worrisome?

10/25: Session 8: The Decision to Commit to Large Irreversible Investments

1. Ghemawat, Pankaj. 1991. Commitment Chapter 5: pp. 81–103.
2. Ghemawat, Pankaj, and Patricio del Sol. 1998. "Commitment versus Flexibility?" *California Management Review* (Summer): 26–42.

Case: Du Pont's Titanium Dioxide Business (A), 9-390-112

- Would you support the growth option?
- Should Du Pont consider licensing its technology advantage?

11/1: Session 9: Appropriating value created

1. Strategy Essential, Chapter 11

Case: De Beers in the Millennium, 9-706-518

- The De Beers organization was successful at monopolizing the trade of gem quality rough stones for over a century. Please explain the mechanisms by which the firm managed to sustain its central position in the diamond trade for as long as it did.
- Why has De Beers given up monopolizing rough stones? That is, De Beers had a strategy that served it well for decades. What caused this strategy to lose consonance ("fit" with the conditions in its environment)?
- Evaluate De Beers' branding strategy.

11/8: Session 10: Is the music industry obsolete?

1. Bower, Joseph L., and Clayton Christensen. 1994. "Disruptive Technologies: Catching the Wave." *Harvard Business Review*, January-February: 43–53.
2. Henderson, Rebecca M. and Kim B. Clark. 1990. "Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms." *Administrative Science Quarterly* 35: 9–30.

Case: BMG Entertainment (HBS 9-701-00[illegible])

- Do you think the music business has fundamentally changed since the time of the case? Be as specific as you can about the difference between the industry at the time of the case and the present.
- If I were to assert that this business has been grappling with essentially the same issues for decades – would you be inclined to agree or disagree? How would you explain your discomfort with my assertion?

11/15: Session 11: In class exam (part individual and part group)

11/29: Session 12: Go over group write ups

12/6: Session 13: Finish discussion group write up and course recap

APPENDIX ONE: GROUP ASSIGNMENT DUE NOVEMBER 29TH (by 9am).

You should work in a group of 4-6 students of your choosing.

Choose ONE of the THREE options below. These three assignments offer you an opportunity to interpret the question and, to some extent, direct the analysis as you see fit – guidance is given, but there is room for interpretation and to focus within the guidance given on what you determine is most interesting. All three of these assignments obligate you to collect your own data and information – but all three have plenty of available data – while not necessarily perfect data. Do the best you can on the data front. If you and your group mates are resourceful, you will have plenty of data to work with. While any one data source may be unreliable, if you "triangulate" and seek out at least 3 sources, you will be in a good position to make reasonable conjectures. Your group's write up should be in the zone of 1,800 words. Exhibits, tables and other summary visuals are helpful and do not count toward the word limit – answer the questions as best you can. Do not get hung up on the number of words, the format or other administrative issues. Pick a topic below and learn something – if you learn, I learn and if I learn, your assignment does well. I certainly don't intend to count the words – but if I am not finding what you write very clear or interesting, I might notice it also happens to be 3,000 words.

I will be very pleased to answer specific questions about the assignments in class – however, until we meet I ask that you use your best judgment. Your goal is to develop a paper that identifies the key drivers of firm returns and the key priorities to sustain or improve returns. Keep description of the firm or market to a minimum – focus on what are the few key drivers to firm demand, cost, pricing power and what should the firm do to be well positioned going forward. Appendix Two contains a generic structure you might want to follow (but are not obligated to follow). The three choices are:

1. Choose any medium- large regional brewer you like from anywhere in the world. Determine or estimate this firm's ROIC. What is Anheuser Busch InBev's or SAP Miller's ROIC? Explain what necessary conditions must be met for a regional brewer's ROIC to exceed a multinational brewer such as InBev's ROIC. In what ways is value creation advantaged at the regional level? In what ways is value creation disadvantaged? Inform yourself about the economics of mass marketed vs. microbrews.

2. This topic is on Disney – an interesting multinational corporation with substantial presence in many countries. Evaluate Disney's decision to enter the cruise line business (these cruises are offered all over the world). Why has the ownership structured of Disney Cruise Lines (DCL) been altered over time? Inform yourself about the economics of the cruise line business. Does this business increase or decrease Disney's value? What could you learn about Disney generally by looking at how its cruise line business has performed over the years? It is particularly relevant to consider that this business is global and incorporate this fact into your analysis.

3. This question is focused on the US single brew coffee market. In early April, Green Mountain and Starbucks caused a buzz with their decision to associate Green Mountain machines with Starbucks K-Cups. The market (at least initially) suggested the value of the firms involved would increase as a result of the deal. Dunkin' Donuts is also going to make pods for the Green Mountain machine. Evaluate this outcome – whereby Green Mountain will make machines, its own pods as well as pods containing Starbucks and Dunkin' Donuts. The key question to keep in mind as you consider the issues here is "where is the scarcity in the single brew ecosystem?"

What is Green Mountain in possession of that is scarce (before and after patent expiration)? Does their decision leverage their scarcity? Do all three players win? Which player's market value do you believe will gain the most (in absolute dollar terms)? Would you suggest that one of more of these players might have done better by choosing a different course? Look at the market reaction over a few weeks following their April announcement and determine if you are or are not in synch with the market assessment. Starbucks has recently decided to offer its own single brewing machine – evaluate this decision.

APPENDIX TWO: HOW YOU MIGHT STRUCTURE YOUR GROUP WRITE UP

A nicely structured paper is easier to read and follow and often earned a higher grade because I could more easily understand the arguments. There are cases of great insights existing within the paper, but that insight is not connected to the rest of the content. Since structure matters, I provide here a discussion of good structure:
In class discussion, we lead with "how attractive is the business overall?" In writing a paper, you could:

A. Begin with a ROIC (return on invested capital) comparison – show a typical industry player (Carnival Cruises, AB Imbev or SAP Miller, GMCR (try to back out single brewing business). Compare this typical player to a firm of particular interest (DCL (Disney Cruise Lines), brewer of choice, need no comparison for GMCR b/c they dominate the industry but you might compare them to another type of coffee firm such as Starbucks).
B. State whether the ROIC data provided suggests that the space is attractive or not. Now go on and do a qualitative analysis and determine if the qualitative analysis supports or adds confusion to your ROIC findings. Do not walk through the five forces or market structure analysis– rather state the key insights generated from this analysis. Using information derived from, say, 2 or 3 reliable sources, determine qualitatively how attractive is the space.

   ====> Your paper could lead with A and then segue way to B or just as good to lead with B and segue way to A. The key is to integrate in an explicit way the ROIC with the qualitative analysis. Often, students provide much more financial data than required – in tables or appendices. If the data is not explicitly and correctly integrated with the words that explained the prospects for profits for a typical firm and WHY, please don't include it. Data dumps don't serve much of a purpose and we don't grade the papers based on weight! If you do include a table or exhibit – explain the table/exhibit thoroughly – what does it suggest? What did you learn from that table/exhibit, why is it included?

In class, after we discuss "how attractive is the business overall?" we turn to the potential sources of firm level advantages. In writing the paper, you might:

A. Discuss the general WTP drivers for firms in this space – the key is not to be too general ("fun" is a meaningless WTP driver for a cruise line, but "seeing many locations but only having to unpack once" is a good one). Are there demand side economies of scale or scope? Do high performing firms tend to draw their advantage from core competencies, valuable resources and/or early mover advantages/positioning?
B. Next, discuss whether the firm of interest (i.e., DCL) has particular WTP advantages or disadvantages.
    a. If there is potential for variance in key WTP drivers in this business, is the firm of interest "above the mean in a high variance and important component?" If this industry or segment affords demand side economies of scale or scope – how does the firm of interest measure up? Does the firm enjoy the benefit of core competencies, valuable resources and/or having secured a great position as part of its legacy?
    b. If there isn't much potential for variance[1], and the firm of interest is outperforming the average firm, it is likely due to superior execution of the

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[1] By variance we mean the following: Let's say your key criteria for a restaurant was easy parking. If you narrowed down your restaurant choices to 5 places and they all had equally good parking – now parking is not longer a useful criteria for you to use – the absence of parking variance means that among these restaurants, their good parking does not give them an

drivers of WTP – that is, the firm is winning via a disciplined operating strategy. This could be due to the firm being more sophisticated about managing its balance sheet, internal governance, external network, etc. All technically imitable ways of producing WTP, but this firm is more disciplined than its rivals.

====> Determine if there is potential for variance among WTP drivers, if there is, does your firm win on one count or more? If there is little potential for variance, does your firm enjoy a superior operating strategy for creating WTP?

C. Discuss the general C drivers for firms in this space – be careful about claiming items that are a high share of cost are a general problem for the segment. For example, fuel may be a high share of cost – but need to be specific about why it is difficult to pass the cost on to customers. In general, if you cannot pass costs on to customers, it's because demand is too low! Are there cost side economies of scale or scope? Does the firm possess competencies or particular resources that lower costs?

D. Next, discuss whether the firm you are focused on has particular C advantages or disadvantages.
    a. If there is scope for variance in key C drivers in this business, is the firm you are focused on "above the mean in a high variance and important component?" If this industry or segment affords cost side economies of scale or scope – how does the firm of interest measure up? Competencies? Resources based advantages? Early mover advantages?
    b. If there isn't much potential for variance and the firm is outperforming the average firm, it is likely due to superior execution of the drivers of C – that is, the firm is winning via a disciplined operating strategy. This could be due to the firm being more sophisticated about managing its balance sheet, internal governance, external network, production and operations etc. All technically imitable ways of lowering C, but this firm is more disciplined than its rivals.

====> Determine if there is potential for variance among C drivers, if there is, does your firm win on one or more count? If there is little potential for variance, does your firm enjoy a superior operating strategy for lowering C?

In class, after we determine the potential sources of firm level advantages and the advantages or disadvantages of a particular firm, we turn to sustainability and recommendations and other interesting points of discussion:

A. How are returns likely to change over time and why?
B. How important are institutional arrangements such as ownership vs. joint ventures or alliances for sustaining returns?
C. How might managers add to or subtract from their operating choices in order to sustain or even deepen firm advantage?
D. If the firm is in many different businesses, how does the business discussed here generate positive or negative spill on the other businesses?
E. Would you want to be a manager in this division? Why or why not?

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advantage among restaurants in your consideration set. If the parking situation was very different among restaurants, than parking is a key driver of differentiation among customers who cared about parking.

APPENDIX THREE: YOU ARE LIKELY TO DO A BETTER JOB WITH ALL THE DELIVERABLES IF YOU CONTEMPLATE THE 12 STEPS BELOW IN THE CONTEXT OF THE CASE YOU ARE ANALYZING. WHILE THESE 12 STEPS ARE NOT AN "AMBIGUITY FREE" MEANS TO A PROFOUND INSIGHT, THEY WILL PROVIDE SOME GUIDANCE AND WILL CERTAINLY GENERATE SOME TRACTION TO GET YOUR ANALYSIS OFF TO A GOOD START. ONCE YOU CONSIDER THESE 12 QUESTIONS, IT WILL BE EASIER TO KEEP YOUR ANALYSIS FOCUSED ON THE RIGHT ISSUES. ONCE YOU HAVE A "BRAIN DUMP" OF INFORMATION AND INSIGHTS, LOOK AT APPENDIX FOUR WHICH CONTAINS A GENERIC "HOW TO STRUCTURE YOUR WRITE UP" GUIDE.

1. What does the industry produce? What need or needs does this output satisfy?
2. What is the size and state of the industry? What are the industry's revenues, operating margins/profits, etc.? Choose a few key industry players and determine their ROIC and a few other key financial metrics that make sense for the industry. Is the industry large and growing or flat or shrinking? Overall, how well do firms in this industry seem to be doing based on your observation of financials?
3. Think of the industry as being part of an "assembly line" that leads to a final output...in the case of complex "ecosystems", draw a map of who sells what to whom – draw not only the "vertical" – also include complementors and substitutes as well.
4. What is the industry's value added? Both in words and relative to the "vertical" in which it operates – is the industry more or less vital (from the perspective of customers) than most players along the vertical? When we say "vital" we are referring to whether the industry's makes a large contribution to the end customer's WTP or to the overall efficiency of the value chain. Consider ideas like where is the uniqueness and Adam Brandenburger's "where is the scarcity"?
5. Perform an industry analysis: Which constituents are relatively well positioned to capture the majority of the value created by the industry?
6. Define the industry structure. Industry structure refers to how "concentrated" is an industry and to the amount of product (or possibly process) differentiation we observe. Concentration means how many firms sell, say, 50% of industry sales. For example, in pharma, about 10 firms sell 50% of industry sales. This is fairly concentrated – but not as concentrated as a situation where 4 firms sell 50% of industry sales. Concentration ratios could be expressed in other forms – what number of firms sell, say, 30% or 80% of industry sales. The goal is to understand how spread out are the sales of the whole industry – are the sales concentrated in a few firms or diffused across many firms. The more diffused are sales, the more "competitive" is the industry. Many factors impact industry structure.
   a. Structure is closely related to MES to set up a firm in this industry. How many firms "fit" in the market (revenues/MES)? The higher is MES, the higher is the level of revenues (demand) necessary to support X-number of firms. Feel free to be very "back of the envelope" here – this data is not readily available in most cases.
   b. Does size generate significant reductions in unit costs (economies of scale and/or scope)?
   c. Does size generate notable increases in WTP? (Demand side economies)
   d. Can differentiation generate WTP? If "bigger is better" but there is scope for differentiation, the industry is a differentiated oligopoly as opposed to a homogeneous oligopoly.
   e. If the firm is "bigger because it's better" – it could be a monopolistic competitive firm but with high share...it could be so successful it's part of an oligopoly.
   f. Market structure results from endogenous and organic factors. That is, market structure results from choices made by firms inside of the industry – firms "choose" to enter, they "choose" capacity levels, they "choose" to differentiate. However, market structure is also a result of organic factors such as the nature of customer demand, the nature of the

differentiation that is both feasible and demanded. Hence, while market structures are somewhat predictable based on observable factors, there is also a bit of alchemy in how a market looks when all is said and done.

7. Insights (beyond 5 forces) into factors that impact a "typical" firm's revenues or costs – These insights can be generated using other course frameworks (such as the Resource Based View).
   a. Is there an "ownability" issue – for example, in the music label business the output is an artist ...this is an example of low "ownability".
   b. Are there idiosyncratic factors in the industry's ecosystem that inhibit firms from turning product or service attributes into price premiums?
      i. For example, if the output is sold through intermediaries, it is often difficult to monetize some attributes if the intermediary lumps the firm's output together with the output of other firms.
      ii. This is not a case where the intermediary is powerful, per se; it's an issue with the "set up." We might be looking at information frictions, or transactions costs issues or various misalignments.
   c. Are there factors that prevent the firm from using a cost advantage to grow share?
      i. For example, there may be regulatory constraints on selling outside of a given radius.
      ii. Plain and simple – what factors not related to the power of particular constituents (as per the 5 forces) that constrain the firm from thoroughly monetizing its advantage?
   d. Do you perceive opportunities for added value that have been ignored by industry players?
   e. Are there any notable and/or typical firm boundary decisions made (for example, are many firms in the industry vertically integrated, diversified or consolidated?)

8. Define one or more potentially successful positions (actual or theoretical)– how might firms generate a WTP – C gap and capture enough to earn attractive returns?
   a. Image an "ideal" position given the insights generated from the analysis above. Is there a firm close to this ideal position? If not, why?
   b. How is the firm under consideration positioned relative to an "ideal" position?
9. Are any significant technological disruptions, taste/need shifts or regulations on the horizon that are likely to impact the distribution of value added and returns along the vertical? How might the "ecosystem" may be altered by these changes? You will likely have to conjecture here or cite some industry pundits.
10. What are the likely reactions of each constituent in the ecosystem – entrants, substitutes, competitors, customers, suppliers and complementors? Here is where we often consider changes in the boundaries of the firm (horizontal growth, vertical integration).
11. How might the industry under consideration, in particular, react to defend its value added and returns?
12. Are there any notable asymmetries among the firm being analyzed and other firms in the industry? Is this firm better or more poorly positioned relative to the norm given the disruption occurs? What about governance and employee engagement at the firm level? Are employees highly engaged because expectancy and equity theory are at work here? How about the firm's organizational structure relative to its needs?

APPENDIX FOUR: Concepts to know for exam on November 15th

1. Setting strategic priorities begins with the basic question "**where is the variance?**" Successful firms in contested markets need to outperform on a key dimension where variance is both meaningful and possible. Outperforming on a dimension that has little impact on either WTP or C will ultimately not be very meaningful (e.g. if Boeing can secure bolts at a lower cost than Airbus, it will not provide Boeing a strategic advantage because this factor is relatively unimportant). In uncontested markets, where demand is low relative to supply, all firms have the potential to make profits.

2. The ideal situation is to have a **core competence** that enables the firm to outperform on a dimension that matters. A core competence is a skill, ability or knowhow that leads to attractive and sustainable returns. It generally requires significant investment, and all aspects of the business draw from this competence. A firm's core competence leads to the accumulation of its **strategic assets**, which are difficult to recreate by others and are attracted to or produced by the core competencies (i.e. the "stock" rather than the "flow").

3. **Value creation** is the "reason for being" for businesses; when we say "value creation," we are referring to the generation of sustainable and positive economic profits. When a transaction between a buyer and a seller occurs, the total value created is equivalent to the "wedge" between a buyer's WTP and the seller's cost times the Quantity of products sold. The value is split between the buyer (WTP – P = buyer surplus) and seller (P – C = producer surplus). In this class, we primarily focus on whether (P – C) * Q is greater than 0, where C is defined as the all-in costs to produce the good (variable, fixed, and the opportunity cost of having employed the capital creating that good elsewhere).
    a. We use ROIC as a good metric here: ROIC = (roughly net **operating** profits after tax / total market value of employed capital). When ROIC > WACC, the firm has generated positive economic value
    b. To increase profits, firms can generally employ one of two approaches:
        i. <u>Value capture (only feasible in reasonably uncontested markets)</u> – directly changing P to expropriate value from either competitors or customers. A firm could simply increase the P without affecting the product (and thus WTP), taking value from customers or lower the P to steal share from competitors. Note that the price elasticity of demand is very important to consider here. Further, value capture is net zero-sum game (e.g. producer's gain is the customer's pain)
        ii. <u>Added value</u> - This approach actually adds value to the *total* pie of buyers and producers by either lowering producer C or increasing buyer WTP; ultimately the price for the product will determine who of the buyer or producer will realize incremental added value. Many firm choices to add total value are easily imitated by competitors, which mean that these actions only create value for a short amount of time before the economic profits from the firm's added value are diminished. The key to strategy is to come up with a way of creating /adding value in an *inimitable* way.
        iii.

4. The **five forces (buyer power, supplier power, threat of substitutes, threat of new entrants, industry rivalry)** help us predict and understand how the value created in an industry is distributed among the value chain and "eco system" in which the industry

competes within. Which constituents in the eco-system are empowered to expropriate returns from a "typical" firm in the industry? Think about how best to define "buyer", "supplier" powers, what is rivalry, the threat of substitutes, and when is entry a threat?

a. Think through the value chain and where buyers / suppliers (and industry rivals) can forward or backward integrate
b. Think about size, market structure, and importance of your industry's goods / services to those along the value chain
c. Be sure to define the industry and market correctly; markets are usually defined along product or geographic (or both) terms
d. A broader view of the five forces may also consider the role of **complementors** and **governments**
e. **Disruptive technologies** can also be a concern for an industry when the performance of a disruptive technology comes to meet the demanded performance level from a technology. When this happens, the "sustaining technology" (i.e. existing products) will face intense price pressure as they are overserving their customers with product features that they have minimal WTP for. Example – personal computers overtaking mainframes

5. **Market structure** is about recognizing that the number of players in an industry greatly affects the firm's prospects for returns. Operating strategy should be developed in response to the structure of the firm's industry. The main market structures are perfectly competitive, monopolistically competitive, homogenous oligopoly, differentiated oligopoly and monopoly (natural vs. "winner take all"). The number of players that an industry settles on has to do with MES relative to the size of the market. MES is "minimum efficient scale" and this is defined in Strategy Essentials (or Google it). The size of the market is determined by the amount of demand for the good or service (potential revenues). The number of firms that "fit" in a market is tied to how big the scale of the firm is relative to potential industry revenues as well as how heterogeneous is customer demand -- for example, demand for beauty salons is highly heterogeneous so lots of different salons are needed to satisfy demand. Identifying the market structure that most closely matches the industry to which a particular firm belongs informs us about "best practices" as it relates to operating strategies. For example, a firm selling a commodity (oil tanker shipping services) in the face of exogenous demand should be thoughtful about forecasting demand so as to keep inventory in check. This topic is covered in Chapter 4 of Strategy Essentials.

6. A very related topic to market structure is competition in markets in which **standards** emerge – generally standards are associated with technology based competition. Whenever there are many choices or lots of variety within a product or service category there are redundancies. Variety raises total "system" costs – examples of these redundancies or system costs are research and development, advertising, distribution, customer search ("analysis paralysis"), etc. On the other hand, variety enables customers to get options closer to their ideal – average WTP increases. The question is whether overall value creation (WTP-C) is higher with more or less variety. Many economists who study markets in which variety is particularly expensive, for example, markets in which standards emerge, suggest that market forces lead to "winner take all" or, perhaps, very narrow choices. Standards based markets are ones in which each variety adds a lot to costs relative to how much each additional variety enhances customers' WTPs. The way to see how the WTP increase and C increase may balance out is to consider the 3 factors that generally determine whether a market has the essence of a winner take all market (below). In essence, these markets benefit from

both cost-side advantages of size (aka economies of scale, which virtually all industries do), but also ***demand-side*** advantages of size (i.e. "it's better because it's bigger"). It is also important to contrast "better because it's bigger" outcomes from "bigger because it's better" outcomes, which occur when a product / service has distinct superiority to others on the market such that it commands a very high share (e.g. iPod)

   a. Network effects – High network externalities naturally give rise to winner-take-all outcomes
   b. Multi-housing costs- High system costs associated with each variety & standards increases likelihood of winner take-all (e.g. expensive to own both a VCR and Betamax)
   c. Demand for differentiation – The lower the demand for differentiation, the greater the likelihood of winner-take-all

7. **Positioning** the firm means coinciding firm choices with an understanding of the firm's industry (exploit the opportunities and neutralize the constraints as per the 5 forces). Positioning the firm well also means following best practices that fit the market structure in which the firm competes. Has the firm identified a subset of the industry (a segment) that exploits what is good and avoids what is bad in the overall industry? Firm has good prospects in a position/segment if the firm...

a. Brings the right capabilities to this segment
b. Invests in the necessary assets and invests in at sufficient scale so as to *preempt* followers. That is, the firm should invest in sufficient capacity to "own" the opportunity. If it invests too little – it will face competition, if it invests too much ROIC is dragged down.
c. Understands the factors that drive WTP over time:
   i. Competing vs. exclusive (or concentrated) distributors
   ii. Shifts in taste, income, macroeconomy, complementary goods, demographics
   iii. Emerging substitutes

8. We discussed a potential way to consider **corporate social responsibility.** Firms subjected to rivalry are greatly constrained in raising costs in a way in which WTP does not increase. However, firms with some market power should consider CSR as a deployment of capital much like other projects:
   a. If the firm can decrease cost or increase WTP as well as decrease its negative externalities or, more generally, positively impact society – do it! Consider Cold Water Tide – saves energy!
   b. If the firm might face, in the reasonably near term, constraints on its so-called "license to operate", then management should weigh various engagement options:
      i. Green washing
      ii. Mitigate externalities generated by the firm – Under a program announced 6/2010, employees of Wal-Mart can receive college credit for performing their jobs (tasks as loading trucks and ringing up purchases). Workers could earn up to 45 percent of the credits needed for an associate or bachelor's degree. This mitigates the likelihood that a worker is trapped at a low earnings rung.
      iii. Porter suggests identifying opportunities to leverage the firm's assets and capabilities to cost effectively alleviate societal issues. For example, WM might deploy some of its IT capacity to aid communities during natural disasters. A pharma firm might advocate women's health issues in developing countries in which it operates. Porter suggest that the

firm should choose investments in society that the firm is more efficient at implementing that would be other constituents – that is, choose giving that leverages the firms assets and capabilities rather than simply engaging in philanthropy.

   c. Key is for firm to mine for "win-wins" – increases WTP if C increases or decreases costs and decreases negative externalities and firm should develop highly effective communication within the firm and between the firm and external constituents.

9. **Game Theory**: Is a tool many analysts believe can generate insights determining how NPV positive will be decisions such as:
   a. Capital investments
   b. Changes in capacity and pricing
   c. Investments in efficiency

Among strategy professors, you will find those who are **game theory atheists** – Sam Peltzman, a famed Chicago economist declared in a faculty workshop that when it comes to game theory "I know it's bullshit and you know it's bullshit and I know that you know that I think it's bullshit." He is among those who believe that game theory is unlikely to generate much by way of useful insights that common sense wouldn't yield.

Game theory devotees also populate the best economics departments. They believe game theory is a necessary tool – analysis is incomplete without it.

I will take a stab at a **moderate view on game theory**: The problem is that game theory as a tool enjoys many degrees of freedom – the answer it derives is determined by the assumptions made at the start – the predictions are biased at the start. However, game theory does help you think through situations and determine how forces may be moving in countervailing directions. In some situations game theory helps the analyst determine on what factors particular outcomes depend.

Taking the moderate point of view, the "Notes on Game Theory" posted are the course site are an attempt to put in one place many popular game theory concepts. Please go through this document.

10. **Real option analysis**, like game theory, can lead to insights relevant in determining the NPV of a project. Real option analysis applies option valuation techniques to capital budgeting decisions. A real option itself, is the right — but not the obligation — to undertake some business decision; typically the option to make, abandon, expand, or contract a capital investment. For example, the opportunity to invest in the expansion of a firm's factory, or alternatively to sell the factory, is a real call or put option, respectively. Firm has the weigh the value of the option generated by making move early vs. the cost of forgone opportunities due to not being in an early mover position.

11. The value of some firms is very dependent on particular resources. The **resource-based view** has led to useful insights about how to manage firms dependent on particular resources. The RBV stands as a good contrast to the Positioning view of the world. The positional view says that advantage comes from the firm creating a unique position in the product market (what you do); RBV says that advantage comes from having unique access to resources (what you have). *Resources themselves* can be one of many different things – brand equity, access to certain channels or suppliers, specific

individuals with key talent, etc. You should be sure to understand the significance each of the 4 conditions to generate sustainable advantage -- 3 are quite straightforward -- immobility is subtle and contains the key to understanding the management of key resources such as Jeff Katzenberg.

   a. Resource heterogeneity – resources have to be different across firms
   b. Ex post limits to competition - resources cannot be "created" by competitors
   c. Imperfect immobility – the resource cannot move from one firm to another, either that there is no market for the resource, or that the resource is not as productive at any other firm (i.e. it is co-specialized)
   d. Ex ante limits to competition – the firm could not have paid too much for the resource at the outset

12. Once a strategic direction and operational strategy has been decided on by the firm, the concern should move to **sustaining** any advantage obtained. There are various tactics for sustaining a position covered in Chapter 7, but the important point to note is that returns to increasing size and complex processes that cannot be replicated outside the firm are the most sustainable. Alternatively, the firm can seek to **preempt** competitors by obtaining scare resources (see RBV above) or by investing into capital intensive assets. Investing in capital intensive, fixed assets will be a recurring topic in this class: making large up-front investments, when done properly, can be beneficial for a few reasons: (1) physically build supply to match demand to capture future growth, (2) increasing ROIC over time as assets depreciate, (3) increasing the proportion of your book that is sunk – which makes competitors afraid that you are incented to start price war. Separately, consider that sometimes CapEx by a firm and its competitors increase the MES in the market / industry (e.g. a new manufacturing technology becomes available), which can also have positive effects on the industry economics (see market structure above).

Overall...when thinking about strategy --consider the question "where is the scarcity?" Who along a vertical chain that leads to the production of a good or service is providing the most "added value" or contributing the most by way of attributes that end customers value?

CALCULATIONS YOU MAY NEED TO DO ON THE EXAM:

VALUE ADDED

What You Should Take Away

1. What Value Added analysis is, and why it is relevant
2. How to set-up and solve a VA problem

What Value Added Analysis Is

- Value added analysis (VA) quantifies the incremental *economic* profit (loss) generated by each stage of production for a given good or service
  - VA can be thought of as the incremental economic profit (loss) generated by production stage X, over and above production stage (X-1)
  - The aggregate sum of the value addeds for each stage of production yields the *operating profit* of the firm.

Why Value Added Analysis is Relevant

1. *Industry analysis*: identify and quantify where economic value is being created along a vertical chain of production
   - Application: market entry or acquisition
2. *Portfolio analysis*: within a multi-stage/product company, quantify economic profit generated by each of the firm's activities
   - Application: outsourcing and capacity expansion
3. *Cost analysis*: cost disaggregation and quantification
   - Application: operational effectiveness initiatives

How to Execute Value Added Analysis

1. Diagram the production process; define the process as a series of discrete *stages*
2. Determine how many *units of output* go through each stage
3. Determine unit *prices* for all products manufactured
4. Allocate costs to each stage of production and derive *unit costs*
5. Calculate *VA per unit* for each stage = Price – Unit Cost
   - Unit cost of stage X includes unit price of output of stage X-1
6. Calculate *total VA* for each production stage = (VA/unit for stage X) * (total volume of units produced in stage X)
7. Check that the *operating profit* of the firm = sum of VAs

Sample Value Added Problem:

Your firm produces widgets. To make a widget, you attach one gizmo to a motherboard. To make a gizmo, you attach a semiconductor chip to a polyhedron. Your firm produces widgets and makes all of the necessary gizmos and polyhedrons that are needed to assemble these widgets. You also make some additional gizmos and polyhedrons that you sell to other widget producers. The gizmos and polyhedron markets are perfectly competitive --- i.e., each consists of many small sellers and buyers, no one of which is very powerful. Competition in each market is intense and is thought to result in prices that generate zero economic profits for the typical seller in each market. You purchase motherboards and chips from outside vendors.

Here is some data about your firm's widget business.

Revenues		
15,000 widgets @ $300 per widget =		$4,500,000
10,000 gizmos @ $30 per gizmo =		$300,000
25,000 polyhedrons @ $20 per polyhedron =		<u>$500,000</u>
		$5,300,000
Costs		
Labor		
Widget assembly	$450,000	
Gizmo fabrication	$ 50,000	
Polyhedron fabrication	$200,000	
Components		
Motherboards	$600,000	
Chips	$100,000	
Materials		
Zinc (Gizmo production)	$ 25,000	
Fiberglass (Polyhedron production)	$ 50,000	
Factory Overhead		
Widget assembly department	$ 600,000	
Gizmo fabrication department	$ 50,000	

Polyhedron fabrication department	$100,000	
TOTAL COST OF GOODS SOLD	$2,225,000	
OPERATING PROFIT		$3,075,000

TASK ONE:
Think of the firm's value chain as consisting of three stages: polyhedron fabrication, gizmo production, and widget assembly. What is the value added of each stage of production *per widget produced*?

TASK TWO:
What is difference between the operating profit of a Gizmo vs. the value added?

ANSWER BELOW:

Polyhedron

Total Produced	25,000	for sale
	10,000	for gizmos
	15,000	for widgets
	50,000	
Revenue	$20.00	
Fabrication	($4.00)	
Fiberglass	($1.00)	
Dpt	($2.00)	
Value Added	**$13.00**	

Gizmo

Total Produced	10,000	for sale
	15,000	for widgets
	25,000	
Revenue	$30.00	
Polyhedron	($20.00)	
Fabrication	($2.00)	
Zinc	($1.00)	
Dpt	($2.00)	
Chip	($4.00)	
Value Added	**$1.00**	

Widgets	15,000
Revenue	$300.00
Gizmo	($30.00)
W assembly	($30.00)
Motherboard	($40.00)
Overhead	($40.00)
Value Added	**$160.00**

The operating profit subtracts out the actual cost of the input vs. the "opportunity cost" of the input.