



Microeconomics for Business: Writing Assignments on Porter's Five Competitive Forces

Groups of microeconomic principles students analyze the impact of Porter's five competitive forces on an existing company. Five essays cover the forces: suppliers, substitutes, buyers, rivals, and new market entrants. Topics are tied to economic theory: production possibilities frontier, cross-price elasticity of demand, consumers, firms, and market structure. A sixth essay requires a comprehensive analysis of the five forces with which the company contends. Essays are graded using well-defined rubrics, and their short, uniform structure allows students to incorporate instructor feedback into future assignments. Students connect basic principles of economics to the functioning of a real firm.

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1. Introduction

Teaching microeconomic principles in a business school environment requires a somewhat different focus relative to teaching the same class in a liberal arts setting. While the course content remains the same, business students desire to know exactly how economics will help them in the business world once they graduate, and abstract examples are unlikely to satisfy their demands. A useful tool for demonstrating to students the business application of economic theory is Porter's (2008) article "Five Competitive Forces that Shape Strategy."

In this paper, I describe how Porter's five competitive forces can be incorporated into writing assignments for an undergraduate microeconomic principles course. The assignments are mapped to a standard microeconomic principles syllabus and require students to apply economic theory learned during the semester to a real firm of their choosing. The first assignment connects the production possibilities frontier with the limitations of the firm's suppliers. The second essay links the cross-price elasticity of demand with the substitutes for the firm's product. The third assignment uses consumer theory to analyze the firm's customers, while the fourth assignment uses firm theory to analyze the firm's direct competitors. The fifth essay applies theories of market structure to the challenges that the firm may encounter due to new entrants. Finally, the term paper combines the previous five essays to outline a complete analysis of the firm's competitive advantages and disadvantages.

The next section describes the learning goals of the essay assignments, followed by the description of the six assignments and the grading strategy. I then briefly discuss a student survey that was administered to gain feedback on the assignment framework. Finally, the paper concludes.

2. Learning Goals

There are two learning goals associated with this series of assignments. The first is to connect economic theory to real-world analysis to teach students how to apply what they learn in class to actual firm decision-making. The second goal is to improve students' writing in general and, more specifically, improve their ability to write technical papers on economic topics.

Students are encouraged to select a firm in an industry that holds their interest. In this way, the onus of connecting economic theory to relevant real-life examples is moved from the instructor to the student. Students are required to conduct research on their chosen firm and interpret their findings in the context of economic theory. As an additional benefit, this exercise helps students reach a deeper understanding of the theoretical mechanisms behind firm and consumer decisions.

These essay assignments touch on three of Hansen's (1986) five learning goals for economics courses. Students *gain access to existing knowledge* when they search for sources about the economic conditions of their selected firm. They *display a command of existing knowledge* when they write about the economic theory associated with the topic. Finally, students *utilize existing knowledge to explore issues* when they write their final essay on the current and future challenges facing their firm.

Writing assignments are superior to other assignments since, according to Hansen (1998), "students learn more economics and learn it better because they must not only explain clearly what they are learning, they must reflect further on what they have learned as they put their ideas into written form (p. 81)." Additionally, according to Coyle (2012), one of the main skills that employers claim graduates of economics programs lack is "the ability to communicate

technical results to non-economists (p. x).” There also exists an expansive literature devoted to the value of adding writing assignments to economics courses; for examples, see Greenlaw (2003, 2009), McCloskey (2000), Petr (1998), Smith, Broughton, and Copley (2005), and Walstad (2001).

The writing assignments described below are brief and repetitive. This is done purposefully to improve students’ learning and writing skills. Hansen (1998) recommends that students create “a series of short papers on well-defined progressively more complex topics.” The fact that assignments are brief means that the instructor can grade them more quickly to reduce the time it takes for students to receive feedback. Because the assignments are repeated, students have the opportunity to learn from their mistakes. As Cohen and Spencer (1993) point out, this is superior to long essays due at the end of the semester, since students have little incentive to go back and look at comments once the semester has ended. Simpson and Carroll (1999) show with survey data from Davidson graduates that short papers are the most helpful type of writing assignment to prepare students for their primary occupation.

Following another recommendation from Hansen (1998), each assignment has a structured rubric associated with it. The rubrics, listed at the end of this paper, offer students a clear idea of what questions they need to answer in their essays. In addition, weight is given to the quality of the writing to ensure that students do not simply hand in a series of bullet point answers but rather transform them into a polished brief. The required word count (500–700) and references (at least three), outlined in the syllabus, set transparent expectations for the assignment. Moreover, the explicit grading structure should make it easier for the instructor to grade the essays since every aspect of the assignment is clearly described.

Papers are assigned to groups of students to reduce the amount of time necessary for grading and to allow more students to choose the most popular companies—Apple, Tesla, Starbucks, etc. In addition, Strasser and Wolfe (2014) describe the benefits of having students work on writing projects in teams. These benefits include developing *interpersonal skills* as students must work together to craft the writing assignments. The repetitive nature of the essays also encourages *group processing*, since students must reflect on the division of labor in previous assignments to improve their work on future essays.

3. Assignment

During the second week of class, students are instructed to form into groups of three to five. The groups are then charged with selecting a company to research and analyze for the remainder of the semester. Firms are assigned in the order that the requests are received via email from students and each firm can only be assigned to one group. The directions for selecting a company are below.

Assignment: To answer this question, your group must choose an existing company. The company can produce final consumer goods or services (i.e., watches, phones, legal services, etc.) or intermediate goods or services (microchips, accounting services, etc.). You should choose a company that interests you, as you will be using the same company to answer homework questions throughout the semester. Please select a public company, as private companies do not release as much information to the public. You may wish to read “The Five Competitive Forces that Shape Strategy” by Michael Porter to prepare for this assignment.

I give six homework assignments throughout the semester, with each assignment worth 4 percent of the total course grade. Essays, included with each homework, are worth half of each homework grade, making their cumulative value 12 percent of the course grade. Essays are due after sets of three to four lectures.

Course Outline

1. Introduction
2. Basic Economic Concepts
3. PPF and Specialization
4. Supply and Marginal Cost
5. Demand and Marginal Benefit
- Essay 1 due
6. Efficiency
7. Elasticity
8. Midterm 1 Review
- Essay 2 due
9. Midterm 1
10. Consumer Choice I
11. Consumer Choice II
12. Behavioral Economics
13. Firm Choice I
- Essay 3 due
14. Firm Choice II
15. Perfect Competition I
16. Perfect Competition II
17. Midterm 2 Review
- Essay 4 due
18. Midterm 2
19. Monopolies
20. Monopolistic Competition
21. Oligopolies
22. Asymmetric Information
- Essay 5 due
23. Public Goods
24. Common Goods and Externalities
25. Inequality
26. Final Exam Review
- Essay 6 due
27. Final Exam

A. Assignment 1: Suppliers and the Production Possibility Frontier

The first essay is assigned after the instructor covers the topic of production possibilities frontiers. Students are instructed to research the suppliers on which their firm depends and to connect their research to the theory of the production possibilities frontier.

Assignment: As a group and using 500–700 words, describe the suppliers of your company and connect their ability to supply your company to the economic theory of production possibilities frontiers and marginal costs. Use the homework 1 grading rubric as a guide for what topics your essay should cover. Your group should e-mail me one copy of the essay in Microsoft Word with all of the group members' names included in it. You should cite at least three sources and remember that Wikipedia is not an acceptable source.

Rubric 1: Suppliers

Group Number _____

	0	1	2	3	4	5
1) Competitive state of suppliers in the industry?	Competitive state not described	Competitive state poorly described; no size	Competitive state poorly described	Competitive state described; well; no size	Competitive state described fairly well	Size and competitive state are clearly described
2) Ease of your firm switching suppliers and share of their revenue your firm provides?	Not answered	One answer, but not supported w/ evidence	One answered, and supported w/ evidence	Both answered but not supported w/ evidence	Both answered & partly supported w/ evidence	Both answered & supported w/ evidence
3) Who is more dominant between your suppliers and your firm?	Not answered	Answered, but not supported w/ evidence	Answered, but poorly supported w/ evidence	Answered & partly supported w/ evidence	Answered & fairly well-supported w/ evidence	Answered & clearly supported w/ evidence
4) Applying the PPF model, do you think your suppliers are productively efficient?	PPF model not explained	PPF model poorly explained	PPF model explained, but not connected to the paper	PPF model explained, but poorly connected to the paper	PPF model fairly well explained and question answered	PPF model clearly explained and answer justified
5) Based on (4), how does an increase in your suppliers' output change their MC?	Not answered	Answered, but not supported w/ theory	Answered, but poorly supported w/ theory	Answered & partly supported w/ theory	Answered & fairly well-supported w/ theory	Answered & clearly supported w/ theory
6) If suppliers' production technology improves, how do your costs change?	Not answered	Answered for either PPF or MC, but not connected	Answered for either PPF or MC and connected	Answered, but poorly connected to theory	Answered & connection to theory is explained fairly well	Answered & connection to theory is explained clearly
7) Grammar and spelling	Errors make it difficult to read paper	Egregious errors	Errors are common	A few small errors	One or two small errors	No mistakes
8) Organization and flow	Impossible to read	Arguments are unclear, no flow	Arguments are unclear and poorly organized	Arguments are clear, but poorly organized	Poor flow	Clear; easy to read
9) Sources	None	1, properly cited	2, poorly cited	2, properly cited	3+, poorly cited	3+, properly cited
10) Word count	0-99	100-199	200-299	300-399	400-499 or 701+	500-700

Questions 1–3 on the rubric require teams to research their company’s suppliers. According to Porter (2008), the research should focus on: 1) concentration of the supplier’s industry versus the firm’s industry, 2) dependence of the suppliers on the firm’s industry for revenue, 3) prevalence of switching costs for the firm to find new suppliers, 4) differentiation of suppliers’ products, 5) substitutability of suppliers’ products, and 6) whether the suppliers can threaten to integrate forward and compete directly with the firm.

Questions 4–6 require students to think about the implication of the production possibilities frontier on the suppliers’ costs, and, subsequently, on their firm’s costs. The primary connection that students should make in the essay is that *efficient* production implies that increases in output imply higher marginal costs. If students feel that their supplier could increase production without raising costs, they should infer that production must not be efficient.

Questions 7–10 on the rubric cover grammar and spelling, the flow of the arguments, citation requirements, and essay length. These points are awarded similarly for each of the six essays and reflect Hansen’s (1998) focus on writing quality in his rubrics. The fact that each rubric has the same four questions (relating to writing skills) on it allows groups to learn from previous mistakes and improve the quality of their writing over the semester.

B. Assignment 2: Substitutes and Cross-Price Elasticity of Demand

In the second essay, groups connect the cross-price elasticity of demand to potential substitutes for their company’s products. It is important for this assignment to make clear to students that they are not supposed to consider direct competitors of their firm (firms that produce the same product, like a different brand of tea), but rather focus on those whose output is dissimilar but substitutable (continuing with the above example, hot cocoa).

Assignment: As a group and using 500–700 words, describe the substitute goods and services your company must compete with. Note that you are not describing direct competitors in your industry, but rather the firms in other industries who offer goods or services that could be used in place of your product. Connect your essay to the measure of cross-price elasticity discussed in class. Use the homework 2 grading rubric as a guide for what topics your essay should cover.

Rubric 2: Substitutes

Group Number _____

	0	1	2	3	4	5
1) List the substitutes your firm must compete with	Substitutes not described	Substitutes barely described	Substitutes poorly described	Substitutes described	Substitutes described fairly well	Substitutes clearly described
2) Describe the level of substitutability of your firm’s products with items in (1)	Not answered	Poorly answered and not justified w/ examples	Poorly answered and justified with examples	Clearly answered but not justified w/ examples	Clearly answered and partly justified w/ examples	Clearly answered and justified with examples
3) Describe potential future substitutes	Not answered	Answered, but not justified	Answered, but poorly justified	Answered and partly justified	Answered & fairly well justified	Answered and clearly justified

4) Who has more power vis-à-vis the other: your firm or the suppliers of its substitutes?	Not answered	Answered, but not supported w/ evidence	Answered, but poorly supported w/ evidence	Answered and partly supported w/ evidence	Answered and fairly well-supported w/ evidence	Answered and clearly supported w/ evidence
5) Gauge the cross-price elasticity of demand for your firm and its substitutes	Not answered	Sign or magnitude; not explained	Sign or magnitude; poorly explained	Sign and magnitude; partly explained	Sign and magnitude; fairly well explained	Sign and magnitude; clearly explained
6) Based on (5), how would demand for your products change if your substitutes fell in price?	Not answered	Answered, but not supported w/ theory	Answered, but poorly supported w/ theory	Answered and partly supported w/ theory	Answered and fairly well-supported w/ theory	Answered and clearly supported w/ theory
7) Grammar and spelling	Difficult to read due to poor grammar	Egregious grammar and spelling errors	Errors are common	A few small errors	One or two small errors	No mistakes
8) Organization and flow	Impossible to read	Arguments are unclear, no flow	Arguments are unclear and poorly organized	Arguments are clear, but poorly organized	Poor flow	Clear; easy to read
9) Sources	None	1, properly cited	2, poorly cited	2, properly cited	3+, poorly cited	3+, properly cited
10) Word count	0-99	100-199	200-299	300-399	400-499 or 701+	500-700

Questions 1–4 require teams to consider the substitutes that may replace their company’s products both currently and with the advent of new technology. For example, the emergence of Netflix and Hulu has hurt demand for cable and satellite television. According to Porter (1998), firms should consider: 1) the price-performance trade-off between their products and potential substitutes and 2) the cost of switching to a substitute product.

Questions 5–6 ask students to demonstrate their understanding of the measure of cross-price elasticity of demand. Teams must estimate and explain the magnitude and sign of the cross-price elasticity based on their answers to the first four questions. In addition, students must show that they understand the application of cross-price elasticity by describing how a fall in the price of a substitute would impact demand for their firm’s products.

C. Assignment 3: Buyers and Consumer Choice

The third essay connects consumer choice theory to the group’s company buyers.

Assignment: As a group and using 500–700 words, describe the customers for your company’s goods or services. Specifically, describe how numerous the buyers are, how responsive they might be to price changes, whether they treat the product as inferior, a necessity, or a luxury, and anything else you think is important to understand about your firm’s

customers. Connect your essay to the measures of price and income elasticities of demand to determine how your firm's revenue responds to price and consumer wealth fluctuations. Use the homework 3 grading rubric as a guide for what topics your essay should cover.

Rubric 3: Buyers

Group Number _____

	0	1	2	3	4	5
1) Describe your firm's customer base	Customers not described	Customers barely described	Customers poorly described	Customers described	Customers described fairly well	Customers clearly described
2) How responsive are your firm's customers to its price changes?	Not answered	Poorly answered and not justified w/ examples	Poorly answered and justified with examples	Clearly answered but not justified w/ examples	Clearly answered and partly justified w/ examples	Clearly answered and justified with examples
3) Classify your firm's product based on its income elasticity of demand?	Not answered	Answered, but not justified with examples	Answered, but poorly justified with examples	Answered and partly justified with examples	Answered & fairly well justified with examples	Answered and clearly justified with examples
4) Who has more power vis-à-vis the other: your firm or its customers?	Not answered	Answered, but not supported w/ evidence	Answered, but poorly supported w/ evidence	Answered and partly supported w/ evidence	Answered and fairly well-supported w/ evidence	Answered and clearly supported w/ evidence
5) Based on (2), how could your firm increase its revenue?	Not answered	Answered but mechanism not explained	Answered and mechanism poorly explained	Answered and mechanism explained	Answered and mechanism fairly well explained	Answered and mechanism clearly explained
6) Based on (3), what happens to demand for your firm's product as U.S. wealth rises?	Not answered	Answered, but not supported w/ theory	Answered, but poorly supported w/ theory	Answered and partly supported w/ theory	Answered and fairly well-supported w/ theory	Answered and clearly supported w/ theory
7) Grammar and spelling	Difficult to read due to poor grammar	Egregious grammar and spelling errors	Errors are common	A few small errors	One or two small errors	No mistakes
8) Organization and flow	Impossible to read	Arguments are unclear, no flow	Arguments are unclear and poorly organized	Arguments are clear, but poorly organized	Poor flow	Clear; easy to read
9) Sources	None	1, properly cited	2, poorly cited	2, properly cited	3+, poorly cited	3+, properly cited
10) Word count	0-99	100-199	200-299	300-399	400-499 or 701+	500-700

Questions 1–4 require teams to research their company’s customer base. How these questions are answered depends primarily on whether a team has chosen a producer of intermediate or final goods. According to Porter (2008), the firm should be concerned about: 1) the number of buyers and the volume of their purchases, 2) product differentiation, 3) the size of switching costs for buyers, 4) whether buyers can credibly threaten to integrate backward and directly compete with the firm, 5) the size of the product as a portion of the buyers’ budget, 6) how cash-strapped the buyers are, 7) the quality of the products in the market, and 8) the effect of the product on costs of other inputs for the buyer.

Question 5 requires teams to use the previously gathered information to determine whether their company faces elastic or inelastic demand for its product, while question six requires teams to determine whether demand for its product will be positively or negatively influenced by increased consumer wealth.

D. Assignment 4: Competitors and Firm Choice

In the fourth essay, groups apply the theory of firm choice to understand the challenges facing their company in the form of direct competitors.

Assignment: As a group and using 500–700 words, describe the direct competitors in your company’s industry. Specifically, describe how numerous the competitors are, whether competitors are all of an equal size or if some are much larger than others, if it is a slow- or high-growth industry, and anything else you think is important to understand about your competitors. Additionally, determine whether the products in the industry are differentiable, have high fixed costs, or are perishable. State whether you believe your firm has a dominant or a weak position relative to its rivals. Finally, connect your statement to the material we covered on firm choice. Do you think your firm will make economic profit in the long run? If so, which assumptions of perfect competition might be violated to allow this to happen? Use the homework 4 grading rubric as a guide for what topics your essay should cover.

Rubric 4: Competitors

Group Number _____

	0	1	2	3	4	5
1) Describe your firm’s direct competitors	Not answered	Competitors barely described	Competitors poorly described	Competitors described	Competitors described fairly well	Competitors clearly described
2) Is your firm’s industry high or low growth? How would that impact competition?	Not answered	Poorly answered and not justified w/ examples	Poorly answered and justified with examples	Clearly answered but not justified w/ examples	Clearly answered and partly justified w/ examples	Clearly answered and justified with examples
3) Describe your firm’s product in terms of differentiability, fixed costs, and perishability	Not answered	Answered, but not justified with examples	Answered, but poorly justified with examples	Answered and partly justified with examples	Answered & fairly well justified with examples	Answered and clearly justified with examples
4) Who has more power vis-à-vis the other: your firm or its competitors?	Not answered	Answered, but not supported w/ evidence	Answered, but poorly supported w/ evidence	Answered and partly supported w/ evidence	Answered and fairly well-supported w/ evidence	Answered and clearly supported w/ evidence

5) Based on (3), which features of perfect competition hold should for your industry?	Not answered	Answered but not explained	Answered and poorly explained	Answered and explained	Answered and fairly well explained	Answered and clearly explained
6) Based on (5), do you think your firm earns economic profit?	Not answered	Answered, but not supported w/ theory	Answered, but poorly supported w/ theory	Answered and partly supported w/ theory	Answered and fairly well-supported w/ theory	Answered and clearly supported w/ theory
7) Grammar and spelling	Difficult to read due to poor grammar	Egregious grammar and spelling errors	Errors are common	A few small errors	One or two small errors	No mistakes
8) Organization and flow	Impossible to read	Arguments are unclear, no flow	Arguments are unclear and poorly organized	Arguments are clear, but poorly organized	Poor flow	Clear; easy to read
9) Sources	None	1, properly cited	2, poorly cited	2, properly cited	3+, poorly cited	3+, properly cited
10) Word count	0-99	100-199	200-299	300-399	400-499 or 701+	500-700

Questions 1–4 ask groups to research and describe their company’s competitors and the key features of their products. According to Porter (2008), firms should care about 1) the number of competitors and their relative size, 2) how quickly the industry grows, 3) whether there are barriers to exit, 4) the goals of rivals that go beyond economic profit, 5) product differentiation, 6) the magnitude of fixed costs, 7) the incremental size of capacity increases, and 8) product perishability.

Questions 5–6 connect the research conducted by students to the firm’s problem and the assumptions of perfect competition. Students must apply the theory to determine how likely long-run economic profits are to arise in their industry. If they believe that their firm has been earning positive long-run economic profits, they must explain how this is possible, since it violates the theory of perfect competition.

E. Assignment 5: New Entrants and Market Structure

The fifth essay asks students to research the market structure of their company’s industry and use that information to determine the likelihood of new competitors entering their market.

Assignment: As a group and using 500–700 words, describe the market structure in your company’s industry. Specifically, describe any barriers to entry, startup requirements for new entrants, benefits of scale to both producers and consumers, and expected retaliation from current industry producers. State whether you believe your firm has a dominant or a weak position relative to new entrants. Could new competition cut into your firm’s long-run economic profits? Finally, connect your statement to the material on market structure covered in class. Which type of market does your firm operate in competitive, monopolistic, oligopolistic, or monopolistically competitive? How does this market structure impact your firm’s long-run economic profit? Use the homework 5 grading rubric as a guide for what topics your essay should cover.

Rubric 5: New Entrants

Group Number _____

	0	1	2	3	4	5
1) Describe the market structure of your firm's industry	Not answered	Market structure barely described	Market structure poorly described	Market structure described	Market structure described fairly well	Market structure clearly described
2) What are the barriers to entry in your firm's industry?	Not answered	Poorly answered and not justified w/ examples	Poorly answered and justified with examples	Clearly answered but not justified w/ examples	Clearly answered and partly justified w/ examples	Clearly answered and justified with examples
3) What are the benefits to scale for consumers and producers in this industry?	Not answered	Answered, but not justified with examples	Answered, but poorly justified with examples	Answered and partly justified with examples	Answered & fairly well justified with examples	Answered and clearly justified with examples
4) Who has more power vis-à-vis the other: your firm or new entrants?	Not answered	Answered, but not supported w/ evidence	Answered, but poorly supported w/ evidence	Answered and partly supported w/ evidence	Answered and fairly well-supported w/ evidence	Answered and clearly supported w/ evidence
5) Could new entrants cut into your firm's profits?	Not answered	Answered but not explained	Answered and poorly explained	Answered and explained	Answered and fairly well explained	Answered and clearly explained
6) What type of market is your firm in? How does this impact its profitability?	Not answered	Answered, but not supported w/ theory	Answered, but poorly supported w/ theory	Answered and partly supported w/ theory	Answered and fairly well-supported w/ theory	Answered and clearly supported w/ theory
7) Grammar and spelling	Difficult to read due to poor grammar	Egregious grammar and spelling errors	Errors are common	A few small errors	One or two small errors	No mistakes
8) Organization and flow	Impossible to read	Arguments are unclear, no flow	Arguments are unclear and poorly organized	Arguments are clear, but poorly organized	Poor flow	Clear; easy to read
9) Sources	None	1, properly cited	2, poorly cited	2, properly cited	3+, poorly cited	3+, properly cited
10) Word count	0-99	100-199	200-299	300-399	400-499 or 701+	500-700

Questions 1–4 require students to research the market structure of their company's industry to determine how competitive it is and how likely it is to experience new entrants. According to Porter (2008), the firm should be concerned about 1) the supply-side economies of scale, 2) the demand-side benefits of scale, 3) the switching costs of customers, 4) the capital

startup costs of entering the market, 5) the advantage of incumbents, 6) access to distribution channels, and 7) government barriers to entry.

Questions 5–6 ask students to apply economic theory to determine if new entrants are a threat to their firm and what type of market structure best describes their company's industry.

F. Assignment 6: Porter's Five Forces

The final assignment asks students to combine all of the research they did for the previous five essays to write a longer summary paper on their company's relationship with the five competitive forces.

Assignment: As a group and using 1000–1500 words, describe the five competitive forces facing your company: suppliers, substitutes, buyers, sellers, and new market entrants. Explain which competitive force should be of the most concern to your company and which force should be of the least concern to your company. Next, explain how your company has managed to remain profitable up to this point. Finally, describe the biggest challenge that you expect your company to face in the future. Your answers should connect directly to the economics lessons learned in class. Use the homework 6 grading rubric as a guide for what topics your essay should cover.

Rubric 6: Porter's Five Forces

Group Number _____

	0	1	2	3	4	5
1) Describe the five competitive forces facing your company	Not answered	One or two forces described only	Three or four forces described only	Five forces poorly described	Five forces fairly well described	Five forces clearly described
2) Which force should your firm be most concerned about?	Not answered	Poorly answered and not justified	Poorly answered and justified	Clearly answered but not justified	Clearly answered and partly justified	Clearly answered and justified
3) Which force should your firm be least concerned about?	Not answered	Poorly answered and not justified	Poorly answered and justified	Clearly answered but not justified	Clearly answered and partly justified	Clearly answered and justified
4) How has your firm maintained profitability up to this point?	Not answered	Answered, but not supported w/ evidence	Answered, but poorly supported w/ evidence	Answered and partly supported w/ evidence	Answered and fairly well-supported w/ evidence	Answered and clearly supported w/ evidence
5) Looking to the future, what is your firm's biggest challenge?	Not answered	Answered but not explained	Answered and poorly explained	Answered and explained	Answered and fairly well explained	Answered and clearly explained

6) Make sure your arguments reference economic theory from class	No arguments supported with economic theory	One argument supported with economic theory	Few arguments supported with economic theory	Some arguments supported with economic theory	Most arguments supported with economic theory	All arguments supported with economic theory
7) Grammar and spelling	Difficult to read due to poor grammar	Egregious grammar and spelling errors	Errors are common	A few small errors	One or two small errors	No mistakes
8) Organization and flow	Impossible to read	Arguments are unclear, no flow	Arguments are unclear and poorly organized	Arguments are clear, but poorly organized	Poor flow	Clear; easy to read
9) Sources	None	1-2, properly cited	3-4, poorly cited	3-4, properly cited	5+, poorly cited	5+, properly cited
10) Word count	0-599	600-699	700-799	800-899	900-999 or 1501+	1000-1500

Groups should build on the research in the preceding five assignments to describe the greatest challenge(s) to their firm, how the firm should behave to maintain profitability, and which issues the firm is likely to experience in the future. For full credit, students must reference relevant economic theory to support their claims.

4. Survey Results

These essays were assigned in a principles of microeconomics course during the fall of 2018, and the students were subsequently surveyed at the end of the semester. The purpose of the survey is to ascertain how effective the assignments are based on the stated learning goals.

The fall 2018 class had 36 students, 34 of whom completed the survey. Based on the results in Table 1, it appears that the learning goals were fairly well met. In general, it appears that the essays were written by multiple members of the group and that free riders were not pervasive. Students mostly liked the format of having many short essays throughout the semester and used the graded rubrics to improve their writing as the semester progressed. In addition, students felt that the assignments enabled them to connect economic theory to real business concerns.

Table 1: Survey Results

Question 1: How many of your group members worked on the Five Competitive Forces essays during the semester?					
Options	All	Most	About half	Only a couple	Only one
Responses	15	7	6	3	3
Question 2: Did your group go over the graded rubrics after the essays were returned to the class?					
Options	Always	Most of the time	About half of the time	Sometimes	Never
Responses	19	9	2	2	2
Question 3: Did you find the feedback from the previous rubrics useful when writing the essay for the next assignment?					
Options	Always	Most of the time	About half of the time	Sometimes	Never
Responses	12	10	4	8	0
Question 4: Did you like the design of the essay assignments; specifically, the fact that the assignments were short and numerous?					
Options	Yes, a lot	Yes, somewhat	Indifferent	Not much	Definitely not
Responses	13	12	6	3	0
Question 5: Did the essay assignments help you connect microeconomic theory to actual business concerns?					
Options	Yes, a lot	Yes, somewhat	Not really	Definitely not	
Responses	19	12	3	0	

5. Conclusion

This paper describes a semester-long framework for integrating business strategy into a microeconomic principles course; in particular, the aim is to make economic theory more relevant to business students. Using Porter's (2008) five competitive forces as an outline, groups of students are assigned biweekly essays which connect various aspects of economic theory to business strategy. The use of essay assignments is intended to deepen student learning while simultaneously improving students' writing skills. Based on student feedback, this framework appears to be quite effective in meeting its learning objectives.

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