

An Integrative Case Study of Market Models for Principles of Economics' Courses: Connecting the Student to the Business World

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ABSTRACT

Integrating case studies within a principles of economics course can be challenging due to the size of a class, mode of delivery, and instructor's styles. This article focuses on the generic concept of market models, covered in the majority of principles courses in economics. It provides the instructor with a simple, effective case study to implement in their course to help elucidate student learning outcomes, promote engagement, and improve critical thinking skills within the field of economics. This exercise also encourages students to secure a mentor and research the field of study they are interested in, which adds greatly to any program's end goals.

Keywords: market models, economic education, integrative study, ball python snake, microeconomics, mentor

INTRODUCTION

Principles of Economics is often viewed as highly technical and theoretical for many students yet they still need Economics 101 (Boudreaux, 2017). Thus, the ability for a professor to tie information to a relevant and unique case study is highly influential in the classroom (McDonald, 2004). This case study is applicable to not only principles of microeconomics' courses at the collegiate level but also to a high school curriculum as well. The layout and structure of the assignment enforces the learning objective of the 4 main market models. In addition, it reinforces critical thinking skills, oral and written communication, assists students in career choices and preparation, and has the potential to allow a student to create a mentor/mentee relationship.

In 2012, Forbes stated, out of the 6 classes recommended which, "will make any college graduate employable" economics is listed (Connerly, 2012). This course is listed due to its social science roots and its applicability to everyday issues. The basic concepts covered in a principles of economics course provide students with a wealth of information applicable to everyday life and business-decisions. Therefore, a case that incorporates the various characteristics of the main market models in addition to a student's desirable career choice and/or major is influential and worth the time commitment. "Economic literacy is crucial because it is a measure of whether people understand the forces that significantly affect the quality of their lives," (Stern, 1998). Perhaps, a student is not that swayed by formulas and graphical analyses in an economics course; however, connecting it to the quality of their life and the current job market equals a stellar course assignment.

MARKET MODEL EXERCISE

The four main market models consist of: perfect competition, monopolistic competition, oligopoly, and monopoly. Each student is assigned to pick a professional to interview, which can take place in-person, via e-mail, or phone. It is designed to be administered for online students as well as a face-to-face class. Students are encouraged to align the professional they choose to interview with a career area they have an interest in pursuing. For example, if someone is interested in being a veterinary technician, they would aim to identify someone in that field to interview. Part of the assignment is to also research, using the Bureau of Labor Statistics Occupational Handbook (BLS, 2016) to identify the following: educational requirements, experience, pay, future outlook, and skill sets. This will equip the student with knowledge prior to scheduling an interview.

The interview consists of 8 questions and is designed to take less than 30 minutes. The student may record the interviewees' responses (with permission), solicit them via email, or in-person. However, while the interview time is not intensive the student should expect to spend at least 2-4 hours on background research, polishing the responses, and preparing a professional end product. The following questions are the primary focus of the assignment as they mirror the characteristics identified in the majority of chapters covering economic market models. The student may elaborate or add to as he/she deems necessary.

- Question 1: What are the key forces shaping the nature of competition and the opportunities for profit in your industry?
- Question 2: What, if anything, do firms do to insulate themselves from competitive forces?
- Question 3: Is your product homogenous or heterogeneous? Explain.
- Question 4: Is geography a factor in the determination of this market? Explain.
- Question 5: Are there many competitors or is your industry dominated by a small number of large firms?
- Question 6: Is the demand for your product elastic or inelastic?
- Question 7: What type of control does your firm exert over prices?
- Question 8: Is your industry government regulated? Explain.

Appropriate Classes

This case is assigned in a principles of microeconomics course taught at the sophomore level in college within an online classroom setting. However, the scope of the learning objectives yields its effectiveness to high-school economics courses at the advanced level as well. It can be utilized for classes taught face-to-face, hybrid, or in the online format. The discussion application would differ based on the mode of delivery. The size of principles courses in economics can vary significantly, thus making this project somewhat of a logistical challenge. With a large size class, the professor can assign this case to a group of 4-5 students. With extremely large lecture classes (300-500 students), this case study may be reserved for a higher level microeconomics course.

Learning Objectives

1. Students will identify the characteristics of the 4 main market models.
2. Students will enforce their knowledge of market models by interviewing a professional within one of these key areas.
3. Students will gain knowledge regarding career selection and job outlook forecasts.

Implementation and Preparation

Students must identify a professional within the industry of investigation. They must use networking skills, work experience, and research methods to assess the appropriate interviewee. The student must make contact either by e-mail, telephone, or in-person to schedule this consultation. They are expected to maintain a professional demeanor at all times and formally disclose the interview is for a class project. Should the interviewee wish to remain anonymous one can genericize the write-up. A professor may also wish to provide a sample non-disclosure statement, should the interviewee request that item.

Discussion

The orientation of the discussions will vary based on the mode of delivery of the course. For an online course, this could take place in the discussion forum. Students are encouraged to create Prezi presentations, voice over Power Point slides, or YouTube videos to aid in their oral and written communication skill sets. Within the discussion forum, students are required to make at least 2 proactive comments to another student's written case study. Within a face-to-face lecture, students can orally present their findings to help hone in on their presentation skills. The author currently ran a trial on this case study during the fall 2016 term where it accounted for 20% of the final course grade in the form of a written research paper, which was turned in on an individual basis. This tactic yielded the best results thus far based on heightened incentives for each student. However, when this approach is followed the other students do not receive the benefit of reading their classmates' responses. The author chose to highlight the best research case studies within the discussion area to allow students exposure to a sample of stellar research. This exercise impacts all students in the course, since principles of microeconomics is part of our core curriculum the diversity of the students enrolled is high. Therefore, their career selection is varied. This encourages students who remain "undecided" about their major and career options to take a closer examination. This exercise has been delivered in both formats and yields positive results. This is a very malleable assignment and allows the professor to use his/her discretion based on class size, demographics, and mode of delivery on the best way to formally have students deliver the end product.

EXAMPLE CASE STUDY: THE BALL PYTHON MARKET

*Ms. Leslie Cerjan (Microeconomics Student) wishes to thank Mr. Christopher Pilgrim owner of PilgrimCasa Reptiles, cdpilgrim@gmail.com for his assistance in this class project. You can visit: www.facebook.com/PilgrimCasaReptiles for more information.*¹

1. What are the key forces shaping the nature of competition and the opportunities for profit in your industry?

Although the ball python has been a part of the domestic pet trade since the early 1990s, they were not popular due to a misunderstanding on the part of keepers that ball pythons are difficult to maintain. What many keepers did not realize was this difficulty was a result of a poor transition from freedom to captivity. There has been a steady growth in popularity since the late 1990s, though, as captive-bred ball pythons have proven to be dramatically easier to care for in captivity. Initially, the opportunities for profit in the ball python breeding trade were tightly controlled domestically by the exotic animal importers with exclusive access to the shipments of wild-caught specimens. Anything that was considered unique or “out of the ordinary” was essentially subject to their right as the first line owners to the most desirable picks. Many of these animals were sold at what seemed like ridiculous prices (some over \$250k) to well-funded breeders, who were in turn conducting private research to determine the genetic inheritance of these aberrant traits. The remaining normal-type snakes were sold to distributors at wholesale prices, who in turn sold them to their pet shop clients. As these breeders began to determine the genetic qualities of the animals they were working with, they typically proved over several generations whether a genetic trait was recessive, dominant, or incomplete dominant. In the early 2000s, the “big” breeders began to conduct limited sales of the aberrant offspring to other would-be breeders. Many of the firms were able to recoup their initial investments, along with earning substantial profits. For a short while (about 2 or 3 years), these big breeders virtually maintained a monopoly, as they were the sole source of supply for their mutation.

The rules of supply and demand are unchanged in this example; however, this shift towards producing visually appealing colors and patterns on ball pythons coincided with an internet boom, partially born from a growth in online social media (although, initially, the buzz was contained to subject-specific internet forums). As the information began to be shared via the internet, the demand for these unique morphs grew rapidly, but the production rate was still very limited. This kept the price points for these snakes extremely high for longer periods of time than what today’s market will bear. Many people became attracted to the hobby/industry of breeding ball pythons solely for the perceived profits to be made, but were unaware of all the factors (specifically – fixed and variable costs such as the overhead capital, time/effort, and business acumen) required to successfully generate revenue from the endeavor. This caused a large number of people to sell animals with a “yard sale” mentality where they sold animals well below (sometimes 50% or even 25%) the current [unregulated] market rate in order to get rid of them quickly. This created downward pressure on many breeders’ price strategies and had a large influence on the handling of future breeding projects and their release.

2. What, if anything, do firms do to insulate themselves from competitive forces?

Initially, there was no perceived need for insulation, because the demand greatly exceeded supply. However, as information became more readily available and understood, breeders began to change the way they approached the sale of “new-project” animals to other breeders. The first of these methods was control through contractual agreements, in which the originating breeder agreed to sell a project animal to another breeder, on an exclusive offspring agreement. This allowed new blood to come into the project without diluting the originator’s control over the project price point. While effective in theory, stolen animals and allegedly-stolen stock quickly undermined the effectiveness of this control method.

Furthermore, Mr. Pilgrim uses another insulation method which he unofficially refers to as “strategic export,” (Pilgrim, 2017). This method is still in use, and involves the export of young or fledgling projects to keepers and sellers in other parts of the world, specifically to areas with different dynamics in the economy. Due to the cost and

¹ The author wishes to express sincere gratitude to Mr. Chris Pilgrim, owner of PilgrimCasa Reptiles for his insight into this case study. He added a unique twist to the study of market models.

level of difficulty involved in the regulation regarding the import and export of live animals, the “little guy” (small firms) do not have unlimited resources for these new projects that are exclusively sold overseas. In addition, the breeders using ‘strategic export’ methods tend to select areas of the world where a large-scale breeding program is impossible or costly because of geographic restraints. Rather than creating future competition locally, these breeders are satisfying a remote end user’s unique pet desire, with a popular or high-demand item, still at a premium price. This method has remained effective for at least the last 10 years, especially as demand has increased for companion animals with low maintenance requirements in an increasingly urban world, (Pilgrim, 2017).

Although ball pythons are easily and readily available, Mr. Pilgrim’s focus at PilgrimCasa Reptiles specifically connects to a recessive mutation called Axanthic. The word Axanthic literally means, “lacking yellow”, and these ball pythons are born with a silver tint to them. There have been multiple lines of Axanthic identified within the species, which have been identified as incompatible with one another. This makes it important for breeders to distinguish the precise Axanthic line they work with when selling the offspring they produce. In this sense, although PilgrimCasa Reptiles is breeding the VPI Axanthic line, there are other breeders producing animals which exhibit the same qualities, but if bred with another line, would not replicate the silver tint. In addition, ball pythons do not have the sole market on genetic morph variety, nor on suitability for pet owners. Cornsnakes, kingsnakes, reticulated pythons, Burmese pythons, and many different boa species have various assortments of color and pattern mutations.

3. Is the product homogenous or heterogeneous? Explain.

Aside from a very few examples, ball pythons were considered homogenous, with a very standard, “wild-type” appearance until the early 1990s. When Bob Clark (<http://www.bobclark.com/>) identified and subsequently proved amelanism (albino) as a genetic trait in ball pythons, the heterogeneous streak in the ball python market was partially revealed. As it became apparent that there were genetic varieties beyond the albino, breeders could choose based on looks and budget, or a combination of those factors. In the early 2000s, a New England-based reptile breeder named Kevin McCurley (<https://www.facebook.com/NewEnglandReptileDistributors>) conducted an interesting pairing. He bred one variant of a ball python called Pastel, with another variant, called Spider, (McCurley, 2017). He wasn’t sure what would result, but he assumed he would have a distribution of 50% normal/wild-type, 25% Spider, and 25% Pastel. Instead, he made a discovery that changed the entire industry. As expected, he produced normal/wild-type, Spider, Pastel. The surprise was that he produced a snake that had BOTH the Pastel AND the Spider traits! This animal exhibited the spiderweb color and pattern characteristics of the Spider morph, combined with the bright yellows of a Pastel. Mr. McCurley called the combination a Bumblebee, because the bright yellow and solid black coloration somewhat resembles the coloring of a Bumblebee (McCurley).

Breeders around the world were amazed when he shared the discovery, and Kevin McCurley became a nearly-overnight celebrity. He, and other breeders, began trying other crosses to see how the resulting offspring would be affected. At the time that Mr. McCurley attempted the pairing, there were approximately 100 known genetic mutations of ball pythons being bred in captivity. As of this writing, because of the number of possible crosses, there are thousands of combinations in existence, and several thousand that have yet to be produced. The impact on the market because of this discovery was immediate and widespread. Prices skyrocketed, as breeders sought to bring in at least one of every known morph for their breeding program in order to try to make new combination from known mutations. Prices eventually equalized after the release of 7- and 8-gene combinations which devalued the single gene animals to the status of other captive-bred normal/wild types. However, recent trends among breeders have swung towards ensuring quality, selective breeding are planned to allow mutations to complement one another.

4. Is geography a factor in determination of this market? Explain.

Because of the technology available, keeping ball pythons in captivity can be accomplished within the developed world with ease. However, in underdeveloped regions, geography would directly affect the ability of these animals to survive or thrive. In addition, although these animals are kept as pets in the U.S., they serve as a food and leather sources in other parts of the world. Geography plays a role domestically in the price structure, simply based on the local cost of living and the typical rules of supply and demand.

5. Are there many competitors or is your industry dominated by a small number of large firms?

At the beginning, there were a few large firms that dominated the industry. Today, those breeders are typically referred to as pioneers of the hobby, because their work brought more mainstream appeal through aesthetics to a largely underground industry. While some are still active in the industry, others exited and have moved to other ventures. Because this industry is young, there is still much to be determined. Nonetheless, the success or failure of the small-scale breeder typically hinges on a few key decisions they make early in their breeding endeavor.

6. Is the demand elastic or inelastic?

The demand has been and remains elastic, with much of the fluctuation in demand being between different mutations or combinations as they are accomplished and advertised. Because these animals are a food and leather resource in other nations, there is a long-term usefulness for retired breeders with no value in the pet or breeding trade, especially for the firms which export to those areas.

7. What type of control does your firm exert over prices?

As the sole proprietor, Mr. Pilgrim has 100% control over his pricing strategy. In any project worked by a large number of breeders, Mr. Pilgrim has very little influence over the market prices. However, there are projects that he currently has exclusive ownership of, in the short-term or long-term. If he has short-term exclusivity, it's because he was the first to make the combination from known, existing projects that are actively being worked by other breeders. He explained, "Because I am the first to have the combination, I can set my prices wherever I like. Because I value my work and investment into these projects, I use a higher-end pricing strategy on these animals, if I list them for sale at all. There have been animals I have taken to a trade show that were really only present for display and not for sale; but because I expect that there will be at least one query, I tag these animals with a \$6,000 or higher price tag." His intent initially was to prevent frivolous inquiries; however, it had the unintended side effect of helping to establish a higher perceived value for other breeders in the same project.

8. Is this industry government regulated? Explain.

Yes - the industry is government regulated, although currently, it is not done so heavily. As the industry has become more mainstream, regulations have been imposed, but to this point, many of those regulations are a reaction to irresponsible or unethical actions. Regulatory policies could affect Mr. Pilgrim's output decisions if he were to consider expansion from his current annual production of live animals, although none is planned at this time.

CONCLUSION

The content of this specific case study will intrigue both professor and student alike. While students may not struggle with the characteristics of the four main market models, they do have issues with critical thinking, oratory and written skills, as well as career selection(s). This experience provides a unique way to identify and address market models. The discussions that can ensue are insightful to all involved in the course. The usage of modern technology enables all students to be creative and highly engaged as well. The ability for the professor to alter or cater this assignment to his/her teaching methodologies is very simple. This case allows students to increase their knowledge of economics in addition to gaining a better understanding of the professional arena they desire to enter into upon graduation.

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Appendix A - Grading Rubric

Score Levels	Content	Mechanics and Formatting	Organization	Presentation
4	Is well thought out and supports the assignment Reflects application of critical thinking Output is highly related to the topic Documentation of the business professional, highly influential. Is accurate	No spelling, grammatical, or punctuation errors High-level use of vocabulary and word choice Followed case guidelines	Information is clearly focused in an organized and thoughtful manner Information is constructed in a logical pattern to support the case study.	Multimedia is used to clarify and illustrate the main points Format enhances the content Presentation captures audience attention Presentation is organized and well laid out
3	Is well thought out and supports the solution Has application of critical thinking that is apparent Output is related to the topic Documentation of the business professional, influential Is accurate	Few (1 to 3) spelling, grammatical, or punctuation errors Good use of vocabulary and word choice Missing 1 key component to case	Information supports the case study.	Multimedia is used to illustrate the main points Format is appropriate for the content Presentation captures audience attention Presentation is well organized
2	Supports the solution Has application of critical thinking that is apparent Has no clear goal Documentation of the business professional is unclear Has some factual errors or inconsistencies	Minimal (3 to 5) spelling, grammatical, or punctuation errors Low-level use of vocabulary and word choice Missing 2-4 components to case	Project has a focus but might stray from it at times Information appears to have a pattern, but the pattern is not consistently carried out in the case study. Information loosely supports the case.	Multimedia loosely illustrates the main points Format does not suit the content Presentation does not capture audience attention Presentation is loosely organized
1	Provides inconsistent information for solution Has no apparent application of critical thinking Has no clear goal No clear interface with business professional Has significant factual errors, misconceptions, or misinterpretations	More than 5 spelling, grammatical, or punctuation errors Poor use of vocabulary and word choice Missing more than half of case components.	Content is unfocused and haphazard Information does not support the case study. Information has no apparent pattern	Presentation appears sloppy and/or unfinished Multimedia is overused or underused Format does not enhance content Presentation has no clear organization