KELLG_MA 322-0: Pricing

Syllabus

Version: July 9, 2012

There are three basic ways in which prices are set.

1. Haggling/Negotiation: The oldest form of price setting and still going strong, even on the internet.

2. Posted Price: The seller announces a price and waits for buyers willing to transact at that price. This is really a particular haggling strategy where the seller makes a take it or leave it offer.

3. Auctions: The seller has buyers compete amongst themselves to determine the price at which a transaction will be executed. Like a posted price, this can be viewed as particular haggling strategy.

In this course, we discuss the pro's and con's of these three methods for price setting. An example of the kind of question I will ask (and answer) is this: Which of the three price setting methods generates the highest revenue/profit?

The second topic will be how to customize the price of the same product or service to different segments (otherwise known by the unfashionable phrase *price discrimination*). Here, there are two issues of importance that we will examine in closer detail. The first is that such customization can lead to grey markets where customers who buy at the low price resell to customers facing the higher price. The second is that an offering to one segment may cannibalize sales to another segment.

The third topic will be the use of optimization models to set prices when the volume of demand is uncertain (revenue/yield management) as well pricing multiple substitute/complementary products.

The fourth topic will be pricing in competitive environments. Here I will discuss various strategies used to soften price competition through differentiation, versioning, bundling, capacity, and information. Although I am not a lawyer, I will play one in the classroom and summarize some of the legal aspects of pricing.

Lastly, no discussion about pricing should begin without an understanding of how the buyer values the product or service for sale. I will summarize

some of the main techniques (regression, conjoint analysis, EVC) for gathering information about buyer valuations. I will also discuss some of the behavioral aspects of pricing.

The class is a mixture of lecture, case discussion, and modeling/analysis.

Optional for the course is a book by Nagle and Hogan entitled *Strategy and Tactics of Pricing*.[1] It is a good read and full of examples. The book is *not* required because some topics are not covered sufficiently (or at all). On the other hand, there are some points of overlap between our course and the book.

The course grade will be based on homework assignments (35%), class participation (15%) and an in-class final exam (50%).

Some homeworks are to be done individually, while others are to be done in groups (identified below). All homework problems can be found in Chapter 9 of the notes. Submissions must be neat and legible. Groups should be of size at most three (this is a hard constraint); form them as soon as possible. For the group portion of the homeworks, one submission per group suffices. All homeworks are to be turned in at the beginning of the class they are due. *I will not accept late assignments.*

Mere attendance or moving the air around the room with one's mouth are not sufficient to garner points in the class participation category. I am looking for comments and questions that are insightful or raise (relevant) thought provoking issues. Catching me saying something silly or false (or both) is also good. One opportunity to "strut your stuff" will be the case discussions. I will and do cold call.

Below is a class by class break down of what I intend to cover, as well as due dates for various assignments. However, *I reserve the right to make changes so as to adapt to the pace of the class.* Changes will be announced in class or via e-mail.

My office is 541 Leverone (Jacobs), 847-491-5151. I can be contacted by email at `schummer@kellogg.northwestern.edu`. The TA for Fall 2012 is to be determined.

[1] Older editions are by Nagle and Holden, which are also acceptable.

Outline (Subject to change)

Lecture #1
- Introduction
- Measuring Price Sensitivity

Lecture #2
- Relevant aspects of regression
- Discuss conjoint, logit
- Read Chapters 1,2,3 of lecture notes

Lecture #3
- Fisher-Price Case Discussion
- Review monopoly pricing basics (Chapter 4 of notes)
- **Homework #1 due.**

Lecture #4
- Biopure Case Discussion

Lecture #5
- Colonial Homes Case Discussion
- **Homework #2 due.**

Lecture #6
- Medicines Co. Case Discussion
- Introduction to Auctions

Lecture #7
- Selling by Auction (Chapter 5 of notes)

Lecture #8
- Price Discrimination (Chapter 6 of notes)
- **Homework #3 due.**

Lecture #9
- Peripheral Products Case Discussion
- Bundling

Lecture #10
- Either a guest speaker, or catch-up lecture.

Lecture #11
- Prepare problem #23 for Class Discussion.
- **Homework #4 due.**

Lecture #12
- Revenue Management Case Discussion (Chapter 6.3 of notes)
- Pricing and competition (Chapter 7 of notes)
- **Homework #5 due.**

Lecture #13
- Pricing and competition (continued).
- **Homework #6 due.**

Lecture #14
- Pricing and competition (continued).
- Cabo San Viejo Case Discussion

Lecture #15
- Pricing and competition (continued).
- **Homework #7 due.**

Lecture #16
- Pricing and competition (continued).
- UK Credit Card Case Discussion.

Lecture #17
- Bitter Competition (A) Case Discussion
- **Homework #8 due.**

Lecture #18
- Bitter Competition continued
- **Homework #9 due.**

Lecture #19
- Legal aspects of pricing

Lecture #20
- Wrap-up

Homework problems

I will announce in class (or by email) when these assignments are due.

Problems marked (g) are group problems. All other problems must be done individually. (Contact me if you have any questions about the individual assignments.)

Homework #	Problem #'s	Total Possible Points
1	1, 2, 3, 4, 5(g), 6(g)	25
2	9, 10, 11, 12, 13	12
3	14(g), 18(g)	15
4	20(g), 21(g), 22	26
5	25, 26(g), 27	15
6	28, 29(g)	9
7	31, 32, 33, 34(g)	23
8	38, 39, 40	11
9	35(g), 36	10

"Total possible points" is a guideline, subject to change.