POMS 2013 Teaching Revenue Management Panel Discussion

Date/Time: Sunday, May 5th, 2:45 PM - 4:15 PM

Location: Spruce

Panelists: John Birge, University of Chicago

Metin Cakanyildirim, University of Texas at Dallas

Mark Ferguson, University of South Carolina

Dan Zhang, University of Colorado at Boulder

Moderator: John Turner, University of California at Irvine

Track Chair: Itir Karaesmen Aydin, American University

List of Questions

1. Please say a few words about yourself, how long you have been teaching RM, and whether you teach RM as part of a full course or as a component or module in another OR/OM course.

I taught the course Data, Models, and Decisions (DMD) as an MBA elective at Desautels Faculty of Management, McGill University for three times. Revenue management is used as an application of different tools and techniques covered in the course, including decision making under uncertainty, spreadsheet simulation, and linear programming. I am planning to offer revenue management as an MBA elective starting Fall 2014 or Spring 2015.

1. What are some of the main topics that you cover in your course, and which topics seem to be favorites among students?

I have one module on fundamentals of revenue management. Then there are several mini-cases to illustrate several solution concepts. Students are quite motivated to learn the material, as they can easily relate to them. They seem to enjoy the simulation part particularly well.

What name do you use for your course? Revenue Management, Pricing and Revenue Optimization, Demand Management and Price Optimization are some course titles that I have seen.

The course I offered at McGill University is not a revenue management course per se. For the revenue management course I am planning to offer at University of Colorado, I plan to use the title Revenue Management.

1. RM has the potential to be a very technical course requiring the use of statistical and optimization models, as well as specialized software. On the other hand, managerial insights can often be introduced by reasoning about the nature of opportunity costs without getting into the details of specific models. At what end of the spectrum is your class? Would you say it is very quantitative, mostly quantitative, has a good balance of quant + intuition, mostly strategic, or very strategic?

I usually would start with simulation models so that students can build some intuition. They are then much more receptive of the somewhat technical discussions that follow. In fact, students are often delighted to learn that a seemingly challenging optimization problem has an elegant mathematical solution, which often relates to the intuition they formed before.

1. What types of learning assessment tools do you use most? Cases, homework assignments, written projects, or class presentations? What has worked well, and what has not?

I use a combination of cases, homework assignments, projects, and class presentations. Typically, I ask students to work in small groups. Students enjoy working with a small group. I ask students to present their projects in front of the class at the end of the semester. I was very impressed by some of the projects. Based on the feedback I received from students at the end of the term, I think all the different assessment tools are well-received.

1. Are there specific cases or simulators that work particularly well?

For the DMD course at McGill, I use several mini-cases I developed by myself. They seemed to work well. I am in the process of preparing for an MBA elective on revenue management; I would appreciate suggestions on other cases to consider.

1. What software do students typically use to solve problems?

Excel spreadsheet and Crystal Ball add-in.

1. Do you invite guest speakers? If so, how do you find and select guest speakers? What direction, if any, do you give to guest speakers to ensure that the topics they discuss complement issues discussed in lectures?

I did not use guest speakers related to revenue management for the DMD class I offered at McGill. I am planning to use guest speakers for the MBA elective I am developing. My ideal candidates are experienced revenue management practitioners. For the moment, I am planning to contact people involved in some revenue management startups in the Boulder area.

1. Does your course have prerequisites, or do you eschew prerequisites in the hope of attracting more students? How does RM at your school fit in with other courses in the curriculum, such as marketing or operations? (Or, if your course has RM as a sub-component, how does it fit into the overarching course?)

My DMD course does not explicitly state any prerequisites. Revenue management is covered as an application area to motivate and illustrate the different topics, in particular decision under uncertainty, simulation, and linear programming.

1. What advice would you give to those of us starting to teach RM? With the benefit of perfect hindsight, what things would you highly recommend, and what would you avoid?

I want to know the answer to this question as well, given that I am planning to offer an MBA elective in revenue management in the near term.