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# TEACHING PRICING THEORY USING SPEADSHEET PACKAGES

#### INTRODUCTION

Pricing theory is one of the most difficult areas for business and economics students to understand although the material is offered to them in a number of courses such as microeconomics, calculus, marketing, and quantitative analysis. The problem arises mainly because of differing approaches followed in different courses. Typically, in microeconomics courses the topic is introduced using charts and generalized graphs and the students are told that the profits are maximized when marginal revenue (MR) is equal to marginal cost (MC). Once this equality point is established, the optimal quantity ( $\hat{Q}$ ) and price ( $\hat{P}$ ) are read either from a chart or a graph depending on the approach used. In calculus courses, on the other hand, functional relationships are given for demand and cost, and then the rules of maximization using derivatives are utilized to determine to optimal price and quantity. The student usually have hard time adjusting to this new methodology and a great deal of memorization goes on so as to pass an examination and/or to do assignments.

The purpose of this paper is to show that the above two approaches can be combined using a spreadsheet package such as Quattro Pro. Lotus 1-2-3 or Microsoft Excel. The method suggested will enable the student to convert the functional relationships into tabular form, determine the maximum profit, and confirm that the answers obtained using differential calculus were actually correct! This finding immediately improves the students' trust in the spreadsheet package will further enhance the student understanding of key concepts and relationships. Finally, the ease of handling "What if ..." kinds of questions will make the analysis much more interesting and realistic.

### **OBJECTIVES**

The main objective of this study is to show that spreadsheet packages could serve as very important tools in teaching price theory. To illustrate this point, the