

**PROBLEMS AND SOLUTIONS IN GOING WEB-BASED  
WITH AN AGRIBUSINESS SIMULATION**

Patrick D. O'Rourke, Illinois State University

**ABSTRACT**

This session will provide those interested in Web-based interactive business simulations the opportunity to share and learn from the failures and/or successes (problems and solutions) of others.

**INTRODUCTION**

The author is engaged in a project funded by the United States Department of Agriculture, the Illinois Council for Food and Agriculture Research and private industry to transform current PC based agribusiness simulations to interactive Web-based business simulations. This multidisciplinary project involves cooperation among departments at Illinois State University, with collaborative support from distance learning at the University of Illinois and agribusiness training expertise at GROWMARK, Inc.

**Flight Simulator Analogy**

One only has to think about how valuable flight simulators are for people learning to think and make decisions as airline pilots, to grasp the importance of business simulators in teaching people to think and make decisions as business managers. The software, hardware and communications tools available today allow one to develop and implement experiential learning with an agribusiness management simulator, without regard for time or space (distance). The use of agribusiness simulators is not new; the author has used agribusiness simulators for 20 years for teaching students and training industry personnel. However, with the tools available now, there is the opportunity to make such simulations more interactive, more accessible over time and distance and more pedagogically

sound in terms of learning and comprehension results.

**Earlier Agribusiness Simulation**

The author, in 1996, put the most recent farm supply management simulator into local beta testing at Illinois State University. This current simulator serves as the model for the web-based interactive simulator developed and implemented in this project.

**Benefactors**

Two broad categories of people will find value in such an agribusiness simulator: university and community college students in agriculture majors and management (or potential management) personnel in farm supply firms. There is great potential for adoption of the resulting simulator and related instructional materials. It is expected that most college and university agribusiness and agricultural economics programs, teaching basic agribusiness management courses will have interest in an interactive agribusiness simulator to enhance the learning experience for their students. Also, the simulator and related instructional materials will cover many of the traditional management topics desired in agribusiness management training programs. Management of farm supply agribusiness firms has been made more complex by the increased number of products and services sold, by the advent of precision farming practices and related data management tasks, and by increased regulation.

**Learning Objectives**

The following learning objectives represent some of the more important learning objectives enhanced by the more interactive experiential

## **Developments in Business Simulation & Experiential Learning, Volume 27, 2000**

learning model embodied in this project's products:

- ❑ Understanding Income Statements and Balance Sheets
- ❑ Learning to use ratios and comparative data to evaluate a firm
- ❑ Learning to evaluate the financial condition of a firm
- ❑ Learning to perform breakeven analysis
- ❑ Learning to make operating decision in a competitive environment
- ❑ Learning to think and manage strategically

"student's" firm may be in a market having both types of competitors.

The flexibility in market description combined with the anytime anywhere availability and immediate response to student decisions and actions will make this a preferred experiential training vehicle in agribusiness management training in university, college and agribusiness environments.

### **New Attributes**

The most innovative attributes of this agribusiness simulator are related to the delivery mode and the design of the simulator. The student/participant may either "play" against previously programmed competitors or may compete with other contemporary individuals or teams. The most innovative attributes are:

- ❑ Web-based delivery
- ❑ Interactive response to decision making
- ❑ Instant, on the spot, evaluation of some decisions
- ❑ Delivery of interactive learning anywhere, anytime
- ❑ Ability to pattern markets to fit alternative competitive environments
- ❑ Ability to simulate proprietary, corporate or cooperative business organizations

### **“Programmable” Competition**

The agribusiness simulator will be "programmable," that is; the instructor or administrator will be able to set the desired competitive environment for the student/participant. For example, a farm supply cooperative may be set in a market where the primary competition comes from a high volume - low cost competitor. Or, a corporate branch farm supply plant may be placed in a market facing a high service - high margin competitor. Or, the