

# Developments In Business Simulation & Experiential Exercises, Volume 19, 1992

## USING A NON-BUSINESS COMPUTER SIMULATION TO TEACH MARKETING MANAGEMENT

Newell E. Chiesl, Indiana State University

### ABSTRACT

Educators have used a wide variety of computerized business simulations to assist in the instruction of business curriculum. This paper discusses the use of a non-business Simulation, namely the SIMCITY game, to teach the systems approach aspect of marketing. The rational in using SIMCITY as a pedagogical tool is addressed. In addition, the paper describes how the non-business Simulation assists in the teaching of three concepts: marketing as a system; marketing as a function of a mathematical model; and marketing as a written case Scenario.

### INTRODUCTION

As the start of a new semester beckoned, a problem arose. How could I encourage my Students to be eagerly interested in learning the interactive concepts in marketing? I decided to use a pedagogical exercise.

First, general semester objectives were established:

- Make the class fun.
- Teach marketing concepts more effectively.
- Enhance the learning environment.
- Encourage students to be eager participants.
- Provide a teaching/learning vehicle that students could easily relate with in their studies.

Specific course objectives included three marketing concepts to be taught by the professor and learned by the students.

1. To think of marketing as a system.
2. To mathematically model marketing relationships.
3. To write marketing scenarios containing alternative solutions and resultant consequences.

The next step was to select a pedagogical assistant. The teaching/learning vehicle, SIMCITY, satisfied all the requirements needed to meet both sets of objectives. SIMCITY is a fun, easy-to-play simulation game with numerous interactive consequences. Therefore, throughout the entire semester, the professor could say, "Remember when we played SIMCITY and this interactive relationship occurred. Well, the same is true in a marketing system when

### SIMCITY

SIMCITY is a city simulation developed by MAXIS software. Players design, manage, and maintain the city structures of their dreams, Camelot. One player might build a bustling metropolis, while another might prefer a smaller rural community. As long as the player provide a city (with potential for people to work, shop and play), new residents will be attracted. Congested traffic, pollution, overcrowding, crime, and high taxes drive people to leave a city.

SIMCITY represents a highly interactive type model. Decision inputs result in multiple consequences in several areas. For example, the decision to build an industrial zone affects the population density, pollution, taxes collected, traffic patterns, and power requirements for the entire city. The dynamic nature of the game is the key to why this pedagogical exercise was selected. The numerous cause and affect scenarios programmed into the computer model offer a realistic environment for the game player. Billions of

possible scenarios exist increasing the verisimilitude for the player.

### MARKETING CONCEPTS

The main purpose in having students play the SIMCITY game was to assist in the teaching of three marketing concepts: marketing as a system; marketing as a function of a mathematical model; and marketing as a written case Scenario.

#### Marketing System

In a marketing curriculum, students enroll in many specialized type of courses, such as buyer behavior, marketing research, advertising, product strategy, pricing, distribution, international, and business-to-business marketing. In the capstone-marketing course, the professor has the responsibility to tie these classes together into one integrated and interactive system. To accomplish this task, the professor assigned students to develop a flowchart illustrating the various marketing functions with their interrelationships.

#### Marketing Models

Students were assigned a three-step task:

- A. To provide a written description for a hypothetical or real product, its history, specifications, product quality, target market and other marketing mix variables.
- B. To decide upon a functional marketing relationship among the product, customers, and the marketing mix.
- C. To develop a mathematical model based upon the desired relationship among the marketing mix, the customers, and the proposed product.

#### Marketing Scenarios

For this project the professor assigned students to prepare and write an interrelated scenario for a company with both multiple marketing distributive alternatives and resultant consequences.

### RESULTS

An obvious observable result in the use of this pedagogical exercise was the heightened student interest level. This professor observed students not wanting to leave the classroom. Students were intensely excited at the beginning of the semester. Since they could play a fun computer game. This fun easy-to-play computer game required players to understand how one change in a system (the modification of a variable) affected the entire system. Although SIMCITY initially is easy to play, it evolves into a more difficult model as more and more elements are included. This reality based aspect of the game intrigue's university students to the point where the professor found it increasingly difficult to dismiss the class from the PC lab. Such enthusiasm carried throughout the remainder of the semester. One student noted in a written comment, "I feel I have learned more in your class this year than in any of my other classes."