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THE USE OF DECISION SUPPORT SYSTEMS WITH A MARKETING SIMULATION: THE FUTURE IS NOW

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ABSTRACT

Decision Support Systems (DSS's) have been in use by business managers for a number of years. More recently, DSS's have become popular in use with business decision simulations. Several simulations now incorporate DSS's as part of the simulation package. The present paper discusses and illustrates a DSS called CAP (COMPETE Analysis Program) which accompanies a widely used marketing simulation game. Participant and administrator benefits of the program are highlighted.

INTRODUCTION

Decision Support Systems (DSS's) have enjoyed increased attention in the business literature over the past several years - and this attention is now extending to their use with decision-making simulations. This is not to imply that prior to a few years ago there was little, or nothing, written about Decision Support Systems in the simulation literature. To the contrary, Decision Support Systems have been discussed, in various degrees of sophistication, since the first ABS EL conference in Oklahoma City. Oklahoma in 1 974. More recently, however, the value of DSS's as a tool to enhance the use business simulation games has become more apparent (Burns and Bush 1991, Palia 1991, Wolfe 1989, Woodruff 1992).

PURPOSE

Burns and Bush (1991) have redefined the concept of a DSS as it relates to use with decision simulations to be "...a set of procedures which facilitates the updating of decisions from period to period, accommodates the reporting of results, and provides a decision analysis system for historical data." Recently, several popular simulation games have incorporated such support systems into the simulation package. The purpose of this paper is to review and demonstrate the Decision Support System that has been included with COMPETE: A DYNAMIC MARKETING SIMULATION, 4th Ed. (Faria, Nulsen and Roussos 1994).

COMPETE is a widely used marketing simulation that has been on the market since 1973. COMPETE will accommodate any number of industries and industries may contain up to five companies. The students take on the role of the top marketing managers for a company that manufactures three futuristic electronics products. The companies can select up to three market segments in which to operate and participants are responsible for making 42 separate decisions covering all elements of their company's marketing mix. In addition, sixteen market research studies are available to be purchased. Period results include updated financial statements, segment by segment sales and market share information, sales force and inventory reports, production and overtime reports, market forecasts, requested market research studies, and an industry trade association newsletter.

The student manual for COMPETE includes a disk with a set of sixteen integrated Lotus 1-2-3 templates to assist in the analysis and understanding of the market environment. The analysis programs are easy to use and require no understanding of computer programming. Anyone familiar with a microcomputer should be able to use the programs. Students only need the floppy disk that comes with the student manual, access to an IBM or IBM compatible personal computer, and access to Lotus 1-2-3 (including the student version of Lotus). While participating in the COMPETE simulation

does not require the use of the decision support analysis programs, students' understanding, enjoyment, and success in the simulation can be enhanced with the consistent and careful use of the CAP program. Some specific advantages and features of the package include:

1. Permits quick and easy calculation of next period forecasts.
2. Permits the creation of impressive color graph summaries of decisions and the resulting outcomes for each period.
3. Completed spreadsheet may be printed and used as an historical record; they are very useful for year-end, mid-game, or final summary reports.
4. Allows "what-if" post-hoc analysis of decisions.
5. Quickly identifies unprofitable products and regions.
6. Allows for quick cash flow analyses by products and geographic regions.
7. Time-series spreadsheets allow tracking of competitive industry decisions and performance versus your firm.
8. Generally provides an enhanced understanding of the important decision variables and their relationship to outcomes.

BENEFITS OF CAP PROGRAM

The DSS accompanying the COMPETE simulation offers many advantages to the student participants as well as the game administrator. For the student participants: (1) paperwork is minimized, (2) CAP provides a readily accessible data base, (3) errors in analysis are minimized, (4) students' familiarity and comfort with computer technology is enhanced, (5) CAP offers extensive graphical presentations, and (6) the DSS is an additional competitive tool enhancing the learning value of the simulation.

Advantages for the game administration include: (1) saves time as CAP easily does many things that the instructor might have to take many hours illustrating to students, (2) enhances the learning of important marketing concepts, (3) makes students aware of the importance of information in marketing decision-making, and (4) increases the enjoyment of the simulation experience.

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