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ABSTRACT

This paper describes several instructional resources that can be used to integrate microcomputers into marketing education.

INTRODUCTION

The key to the use of microcomputers in marketing education is the integration of micros into the learning process. However, the mission is to teach marketing and not to teach people how to use microcomputers. We should not spend two or three of classroom sessions teaching students to use the micros and the application software. This suggests two things: first, it would be best if the students have a basic understanding of micros before they take the marketing course; and second, the application software that we use should be complex enough to handle the level of data manipulation necessary---yet be relatively simple to learn and use.

Introducing Students to the Microcomputer

Most schools of business have recognized the need to provide their students with a number of core foundation courses before they begin the application course process. Among these are accounting, economics, statistics, quantitative decision making, and, to a lesser degree, computer literacy and programming. The student should learn to use the micros during this part of their program and not as part of the marketing class. However, many curriculums are now stretched and there is little room to add more courses.

This can be solved by combining the microcomputer learning process with the computer literacy course or by integrating the introduction of micros into one of the quantitative or decision making courses. In our program we have a required course called "Computer-Aided Decision Making". In this course the students learn the basic operating system commands of the microcomputer, a little basic programming, and an introduction to computer usage and terminology. They are introduced to regression analysis, forecasting, PERT/CPM, and linear programming using microcomputers. They are then asked to apply their new microcomputer skills in problem solving. This provides the students with a basic understanding of the use of microcomputers and also helps them concentrate on decision making applications rather than having them spend time performing routine math calculations. When students enter the marketing, finance, and strategy courses they know how to use the micro to assist them in analysis/decision making and need only to learn to run the specific application software for that course.

In some institutions a curriculum change may not be possible. In these cases the department may wish to offer workshops in microcomputer use. The students can be taught the basics of operating a microcomputer and using in one or two of these special sessions.

User Friendly Software

Just as marketing professors should not spend classroom time teaching microcomputer basics, they should not spend a great deal of time showing the students how to use the application software. Professors should take great care in selecting or developing software that is powerful enough to handle the level of data the student will be using, however, the software should be user friendly. A student, with just a basic understanding of the use of microcomputers, should be able to learn how to run the application program in a very short period of time. The programs should be self-prompting and guide the student through the data input and analysis phases.

MICROCOMPUTER RESOURCES FOR MARKETING EDUCATION

Small Exercise and Project Analysis

Most marketing courses present the students with several experiences to help them develop marketing research and planning skills. Usually the student will be asked to do small end-of-chapter exercises, several mini-research projects and/or a term research project. Much of this analysis does not require a data bank. The student is given some data and asked to make an analysis. In these cases the student needs a quick, easy-to-use program to perform the calculations. One package that meets these needs is Compstat: Solving Statistical Problems by Microcomputer by Leonard Presby. This package is available in versions for Apple and IBM PC. The package contains a workbook and a program disk. The diskette contains the standard statistical and forecasting functions. It also has 50 modules that contain exercises, minicases, and questions that use a data set. The first section of the workbook contains a brief 'getting started' section so students do not need to have any prior knowledge of micros to use this package. The Instructor's Manual also contains the code for the programs used in the package so you can modify this software to fit your specific needs, i.e., you could allow for storage of data or for unlimited input of data.

This package is best used in a first course in marketing or marketing research when the student

needs assistance in routine statistical and decision-making analysis. It works quite well with most marketing management and marketing research texts and exercises books. It can also be used with a marketing project that does not require a data bank.

The workbook details the step-by-step instructions for inputting data and running each program. In addition, it also provides the student with a brief overview and review of the statistical technique. However, the package cannot manipulate large amounts of data nor can it store it. The students will have to input data each time they want to make a calculation. The package is not recommended for complex or ongoing studies.

Advanced Classes, Large Studies, or Term Projects

Many assignments require the manipulation of larger amounts of data that require data banks. This usually occurs when the marketing professor wants to use data banks in exercises or with a marketing term project. First, it must be remembered that the micros cannot replace the mainframes and minis for large and complex studies. However, while their use is more limited, they can still be a great resource in assisting students with many larger projects.

Stat City: Understanding Statistics through Realistic Applications by Howard Gitlow is a workbook that was written for use in basic statistics classes. It provides the student with unified statistical problems that are related to a 'Stat City' data base and are performed for 'Stat City' interest groups (e.g., the mayor, the telephone company, the electric company, and so on). 'Stat City' is a fictitious town in the United States. It is comprised of families (dwelling units), businesses, schools, parks, non-profit organizations, and places of worship. There is a business district and a residential district that is divided into four zones. Each zone is divided into blocks. The data bank contains the information from 1,373 questionnaires on 27 variables.

The Statistical Processing System is a micro-computer inter-active software statistical package that allows the user to perform most of the standard statistical functions on a data base. The system uses a program diskette and data disks. The system is menu driven with prompting. If you combine this system with 'Stat City', you can create a package that contains statistical review components with a microcomputer analysis package that has data base capabilities. The 'Stat City' questionnaire data, once loaded on the 'SPS' data diskettes, produces a microcomputer data base that can be provided to each student for use in reviewing statistical skills, developing term projects, or for use with term assignments. The 'SPS' microcomputer system is also powerful enough to be used as a stand-alone statistical system for small studies in much the same manner as SPSS packages on a mainframe or minicomputer.

The variables in the 'Stat City' data base are numbered and could be renamed to provide a data base for almost any simulated study. The 'SPS' package allows one to strip variables and create new files so that the 'Stat City' data base, can, in effect, create an unlimited number of data bases. Since both packages are relatively inexpensive and do not require a great deal of the professor's time to learn they can be easily adopted to provide a meaningful tool for improving marketing education.

Self Developed Software

Because software for marketing education has been so slow in coming, many marketing professors have developed packages for use in classes. These packages tend to be developed for a specific class such as marketing management, consumer behavior or marketing research. Many have also developed microcomputer based cases that can be updated or changed from year to year to keep them 'fresh'.

The first package that one usually develops is one that provides some aids for marketing decision making. These packages are used in marketing management courses for problem and case analysis. Such a package includes programs in statistics, forecasting, financial analysis, and decision making. The two basic considerations in such packages are: (1) that they contain programs that are germane to the course and (2) that they require little or no instruction to run them. The only prerequisite is one that requires students to understand the analysis technique prior to running the program, i.e., the regression analysis runs a regression analysis, it does not teach the principles of that technique.

To get started the student simply inserts the diskette into the disk drive and turns on the computer and monitor. In about 10 seconds the student is presented with an introduction message to the use of the disk. It tells that student to type CATALOG and press the return key to see a menu of the programs available.

The CATALOG shows a listing of the programs available to the student on the disk. The names of the techniques are displayed so that the student can easily identify each choice. To run a program the student types 'RUN (NAME OF THE PROGRAM)' and presses the return key. For example, if the student were to pick the Simple Regressn program, it would ask the student to indicate how many observations are to be analyzed and then give the student instructions for inputting the values for each observation. Once the student had put in all of the values, the program does the calculations and gives the student the answer. The student must decide what the answer means.

Other Microcomputer Resources

The packages discussed in this paper are by no means the only microcomputer resources available to the marketing professor. They are presented

only as examples of resources that the author has used. There are a number of other statistical books and software packages on the market. A number of packages are being developed for marketing classes and should be available shortly. There are a number of commercial publications that are available in most bookstores that review various statistical software packages, provide information on current prices, and give the location of the publishers. The professor should exercise as much care and caution in picking a software package as he or she would in picking a text book.

CONCLUSIONS

There is now little doubt that the microcomputer is the foundation of the second computer revolution. Today's business people depend on microcomputers to assist them in decision making. The microcomputer will most likely form the nucleus of the automated office. If students are to be competitive professors are going to have to integrate the microcomputer into their education. It is the task of business educators to introduce the student to the various uses of the microcomputers. Marketing professors need to become microcomputer literate, apply this knowledge to the profession, and pass it on to students. Marketing professors are in an especially good position to foster this education. Many of courses have required computer assistance for many years and the on-going use of microcomputers is a logical extension of this process.

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