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MODE I STORES, INC.: COMPUTER SUPPORTED CASES ON THE MARKETING RESEARCH AND PROBLEM SOLVING PROCESS

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The typical marketing student generally does not look forward to a marketing research course. Part of the students' resistance can be written off to fear of a rigorous and demanding course in what is generally a less quantitative and abstract field of concentration than accounting, finance, or logistics. Whatever the cause, the resistance factor both before and during the research course remains one of the unsolved challenges of marketing education. Marketing research materials are a key element in the student's development. Those who have consulted with or studied corporations are keenly aware of the importance of systematic investigation of marketing problems through formal analytic schemes. This is as true of the small manufacturer of industrial goods who doesn't know who his customers are as it is of the researchers and consultants who seek patterns of marketing success. [5]

The key objective of the marketing research course is to persuade the student to truly internalize the analytic research viewpoint and to instill a framework so that, when faced with a complex multifaceted business problem, he will know what information to ask for and how to evaluate the information he receives. Similarly, if he joins the staff of a research department or agency, he should be able to relate management's needs to workable research and to numerical results. As Kotler phrases it, "what is needed [to gain greater acceptance of marketing research] is a gradual education about each other's needs and capabilities." [3] The Mode I Stores, Inc. package hopefully will help close that gap.

PHILOSOPHY

A key obstacle to effective internalization is the survey nature of the typical research course. Most of the students' effort is devoted to mastering various techniques. To the instructor, there are obvious and tight linkages among such topics as sampling, scaling, questionnaire design, and statistical analysis--but the student often does not appreciate those linkages. One way to demonstrate the ties is to assign a project, including data collection. But this bogs down to a battle of logistics and the limitations of time and money that generally preclude accomplishing a reasonable facsimile of commercial research.

Another alternative is to assign a few cases. A search of currently available ones fails to uncover

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any significant number of cases that combine a realistic managerial problem setting with an opportunity to pursue a research problem through all of its ramifications. The reasons for this dearth of complete, balanced cases are the extraordinary case writing challenge in developing them and the enormous amount of work that “solving” such a case would entail from students. Nevertheless, such cases are feasible and can be structured so that the student workload involved is reasonable.

Mode I Stores, Inc. (A-D) developed from the authors’ research and consulting experience. The problems are real and the decision environment is complex. Research problems are balanced with nonresearchable issues. In short, the case package is the kind of complete and balanced package needed to demonstrate the linkages in a marketing research course. The objectives of the case package¹ are to

1. Introduce sequentially a complex set of growing strategic problems not all of which can be settled immediately and/or through research. The student’s task is to design a program by which the most urgent problems are solved while suggesting how the firm ought to evolve to a higher level of analytical capability (MIS (A)).
2. Take two key research projects and deal with the conceptual problem of research design (MIS (B)) and the analysis of the data from the research design that was actually implemented (MIS (C) and (D)).
3. Make the students play variously the roles of top management, research director for MIS, and external consultant/researcher. The objective is to develop an integrative viewpoint of the pressures and limitations on each party.
4. Emphasize the research process as opposed to the act of carrying out a specific and isolated part of the research.

and last, but certainly not least

5. Acquaint the students with the use of statistical packages for data analysis. This is done in MIS (C) and (D).

Thus, our emphasis is on programmed (but sequentially flexible) experiential learning. Table 1 shows how the Mode I Stores, Inc. case package fits into the schedule of a typical one-semester

¹ Examination copies of the case package are available from the authors.

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research course.

TABLE 1

Positioning of the Mode Stores, Inc. Case Package in a Typical Marketing Research Course

<u>Week</u>	<u>Topic</u>
	PART I. MARKETING RESEARCH AND ITS RELATION TO MARKETING PLANNING
1	Mode I Stores, Inc. (A)
	PART II. DATA ACQUISITION AND MANAGEMENT
2	Mode I Stores, Inc. (B) begins
2	Primary Data and Standardized Information Sources
2	Methods of Securing Information from Respondents
3	Scaling Methods
3	Overview of Statistical Analysis
4	Sampling Techniques
5	The Marketing Information Systems
6	Mode I Stores, Inc. (B) due
	Mode I Stores, Inc. (C) begins
6	Contingency, Correlation, and Regression Analysis
7	Experimental Design
8	Forecasting: Dynamic, Growth, and Cyclical Models
9	Discriminant Analysis and Cluster Analysis
10	Factor Analysis and Canonical Analysis
11	[Slack period to introduce other materials]
12	Mode I Stores, Inc. (C) due
13	[Slack period to introduce other materials]
14	Mode I Stores, Inc. (D) due

ANATOMY OF THE CASE

The Mode I Stores, Inc. (MIS) package describes a realistic business situation as it

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unfolds. The case is based on the authors' cumulative experiences with several retail firms. It is not a contrived case yet it is not a thinly veiled history of a specific firm. All the data for the case have been based on typical operating ratios of retail specialty firms. All the problems related in the case are based on problems and opportunities that firms in the fashion industry have faced at one time or another. The package is realistic not only in the sense that the operating data are fairly typical but also in that it exposes the range of problems, pressures, and compromises that business research must face. For instance, the research design of MIS (C) is not an ideal design. Thus it serves as a benchmark against which to compare and critique the students' ideas and as a basis for discussing avoidable and unavoidable compromises.

MIS (A)

This case describes a prototypical specialty fashion chain that has run into a mixture of problems brought about by its rapid expansion in ten years from a 15 store operation in Georgia to 97 stores all over the Southeastern states. Mode I Stores (MIS) are primarily an advanced fashion operation oriented to the young middle class woman. However, the real money makers are the 10 Bargain Mode or discount stores it now operates. Furthermore, 15, perhaps more, Mode I Stores are doing poorly. There is pressure from within the organization to expand vigorously the Bargain Mode operation through opening in new locations and conversion of "problem" Mode I stores. The advanced and discount fashion operations compete not only for the firm's resources but may be competing also for the same customers. Therefore, any new Bargain Mode expansion is going to elicit a great deal of debate.

The problems are accentuated by the relatively wide and varied region which MIS serves. It includes such diverse large cities as Atlanta, Jacksonville, Mobile, New Orleans and Montgomery along with smaller cities like Paducah, Houma, Macon and Palatka. Some of the Mode I stores' problems are attributable to the wrong merchandise reaching the wrong stores. All of these problems will grow worse and perhaps spill over to the Bargain Modes as MIS continues to expand and diversify. And all along, management must worry about maintaining the distinctive corporate thrust of MIS and the distinguishing features of Model's and Bargain Modes.

Thus, MIS (A) requires formulation of a step by step program by which MIS can capitalize on strategic opportunities and attack the problems of (1) securing the right merchandise and channeling it to the right stores and (2) evaluating the Bargain Mode stores' impacts on the company. Both of these projects hinge on customer identification and market segmentation. MIS (A) deals with delineating the strategy to evolve into a research program and information system adequate to the company's needs. MIS (B)-(D) deal with the specifics of how to conduct those projects.

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MIS (A) is used to introduce the need for a marketing research process. It familiarizes students with the problems of this prototypical firm from a very managerial perspective. This kind of introduction is essential to demonstrating the linkages between operational problems and marketing research logic and techniques.

MIS (B)

MIS (B) begins applying research rigor to the management problem. The case calls for a research project design. The student must (1) state research objectives, (2) specify the information to be gathered, and (3) determine its use. Weeks 2-4 of the course would be devoted to methods of sampling, survey, and scaling. As the weeks progress the student should evolve a completed research design, including some rudimentary ideas of how the data are going to be analyzed. In connection with this last point, note in Table 1 that the course would have to include a brief survey of various statistical techniques and what they do. This is analogous to the overview chapter in Green and Tull's textbook [2].

MIS (B) is a purely conceptual exercise. The students' research proposal is not going to be implemented. The case, however, forces the student to commit himself to a research design. MIS (C) introduces the actual and imperfect, compromised research design. Together the cases provide the student with an opportunity (1) to critique his own work and someone else's and (2) to gain an appreciation of avoidable and unavoidable compromises in research design.

MIS (C)

MIS (C) begins the data analysis part of the package. The student will have to analyze data on over a thousand customers surveyed at seven stores. The data are wide ranging, including demographics, life style, store image, and purchase behavior.

This would be an excessive task if each individual student were to undertake it from scratch. Instead, the case should be handled in group fashion. This cuts down on the paper crunching and computer costs. Secondly, the instructor should provide a deck of SPSS [4] control cards as per the suggestions in the teaching note. The deck returns a skeletal output that gets students started on the data analysis. As the course progresses the student refers to sections of this output dealing with

- frequency distributions and measures of location and dispersion
- crosstabulations, tests of means, and correlation
- multiple regression analysis

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- discriminant analysis
- factor and canonical analysis

plus other techniques² that the instructor may wish to exemplify via SPSS, BIMED [1] or other statistical packages.

At the ends of weeks 6 through 10 the student teams should have applied the applicable tests beyond the skeletal output provided by the instructor. By the end of the tenth week, the teams are ready to do their final runs and write a comprehensive report. The requirements of the report can be tailored by the instructor to fit his ambition, the level of sophistication of the course, and the accessibility of computer time and facilities.

MIS (D)

This case is rather simpler than (C). The case originates from a top priority given by management in the (A) case to the development of a store classification procedure. The objective of store classification is to identify what stores are to receive certain fashion and/or price ranges. Management has picked a mixture of successful and unsuccessful Mode I stores as a study sample. These stores have been classified and ranked by management using objective and subjective evaluations of the market potential of the store in terms of the trade area's buying power, the desirability of the store's location, and subjective ratings of the stores' capacity to assimilate advanced fashion and/or high priced merchandise. The problem is that the stores are classified according to a model that presupposes that the correct characteristics and the correct weights have been identified.

Management wants to validate those assumptions. A research agency designed a customer survey to do so. The data on the customers at the sample stores were used to separate high (Class "A") and low (Class "B") ranked stores. Presumably a "B" store does not receive the same price and fashion lines as the "A" stores. The idea of the survey is to see whether the two types of stores draw different kinds of customers and whether they differ along the same lines as management employs currently to classify the stores.

The objectives of this case are *to* make the most of the data that is given and to critique the research design and suggest ideas on what might be done in the future to settle definitively the problem of store classification. The students are required to test the model and to come up with what additional insights they can utilizing the same battery of statistical tests as for (C).

² Cluster analysis is not available from SPSS or BIMED but would be useful training for MIS (D).

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Again, the instructor gives them a head start by providing a skeletal output and SPSS deck. The case provides a singularly good opportunity for applying cluster analysis as well. The “free form” groupings obtained through cluster analysis do not presuppose management’s store classification scheme and hence provide a contrasting view of store groupings unfettered by the requirements that stores be ranked on a single composite dimension.

OPERATIONAL CONSIDERATIONS

No teaching technique or vehicle is free of critical assumptions, potential pitfalls, or burdens. We will enumerate these operational considerations below.

Critical Assumptions

This case package make three critical assumptions.

1. Learn by doing: We don’t believe that marketing students generally have either the interest or the inclination to engage in highly abstract mathematical work. Thus we emphasize the managerial relevance, design, and manipulation of research results rather than the intricacies of the various statistical techniques. We base this on the assumption that the rate of retention of statistical complexities generally is low and is possibly further depressed, if the student does not become involved in the use of the techniques.
2. Moderate math comprehension: These cases are rendered less useful the less the students’ ability to handle simple arithmetic operations. Thus, the amount of sophistication and how far the MIS (A)-(D) case package is adopted is directly proportional to such limiting parameters as the SAT and ATGSB scores of the students.
3. Progressive interest: It is assumed that as the cases unfold interest in the firm’s problems will increase rather than wane. Thus, the package would not be ideally suited to a class made up for the most part of industrial engineers employed by a large steel mill. This case uses a retailing setting. It should interest the majority but not all of the student population.

Potential Pitfalls

The most obvious potential pitfalls are the lack of a sound computer installation or a lack of time on the part of the instructor or students. But other items can go wrong. MIS (A) must be covered in detail; it will be necessary to excite the interest of the students in the company. Otherwise, the work done on MIS (B)-(D) will be poorly related to the managerial dimension.

On the other hand, the instructor must bring other cases, problems, and examples so as

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not to bore the class with a one-topic presentation. Other cases can be successfully combined with the MIS package. The instructor must be especially careful not to turn the course into a retailing research seminar.

Another problem is how to grade individual participation and how to encourage and obtain continued weekly progress on the cases. The instructor will have to devise an appropriate grading and testing procedure. Experience indicates that this is always a trouble spot with group cases, especially computerized ones. We have no easy solutions to this problem except to offer our collective experiences with various business simulations and integrative exercises in both our undergraduate and MBA programs.

Burdens

There are three identifiable burdens. One is put squarely on the shoulders of the instructor. During weeks 6-8 he or his assistant(s) will have to devote some time to tutoring and counseling students on computer and noncomputer matters related to MIS (C). The same is true of weeks 12-14. To achieve a higher level of learning we must be prepared to provide a higher level of support.

The other burden is on the students. They must meet regularly and progress according to a rigorous schedule. This case package will require a high level of effort.

CONCLUSIONS

Regardless of the challenges noted as operational considerations, which are not unique to the Mode I Stores, Inc., case package, the kind of teaching vehicle embodied in the four cases has high potential. First the concept helps make complex research logic and techniques relevant to real managerial problems. Second the problems at hand are set in the context of a multifaceted research effort. Third throughout the exercises the student is faced with the real trade-offs marketing researchers must make. Fourth students continually must commit themselves to decisions regarding their research programs. All of these elements, we have found in course experience, make abstract work real and easier to retain.

From the instructor's perspective the package offers convenient access to real data and statistical packages for analyzing them. Furthermore, the package is flexible in both the number and order of the cases used. Table 1 is one way to use the complete package. However MIS (A) and (B) could be combined. Alternatively MIS (D) could follow MIS (A). If a truncated version were desired, either MIS (D) or MIS (B) and (C) could be dropped.

It bears stressing that this package will familiarize the students with the usage of

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powerful and valuable computerized statistical techniques. The computer program library should be a second right arm of the marketing researcher as well as of the knowledgeable manager. At the very least both ought to have a clear concept of the uses and pitfalls of statistical analyses that nowadays are done almost exclusively via the computer.

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