SECOND EDITION

CASES IN MANAGERIAL ECONOMICS

Bernard J. Winger

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Second Edition

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CASES IN MANAGERIAL ECONOMICS

TEXT CROSS REFERENCE TABLE

Case	Managerial Texts*				
	Brigham	**Douglas**	**Henry**	**McGuigan**	**Seo and Winger**
1	1	1	1	1	1
2	3	2	2	2	2
3	3	2	2	2	2
4	3	2	2	2	2
5	3	2	2	2	2
6	1	2	2	2	1,2
7	4	3,4	3	5,6,8	4
8	4	3,4	3	6,8	4,5
9	5	3,4,5	3,5	6,8	5
10	5	3,4,5	3,5	6,8	5
11	App.B	5	4	7	3
12	App.B	5	4	7	3
13	6	6,14	6	10	6
14	7	6,7	6,8	10,11	6,10
15	5,7	5,6,7	5,9	8,11	5,7
16	7	7	8,9	11	7
17	8	8	8	11	7
18	9	13	7	4,10	8
19	13	15	14	16	13,14
20	13	15	14	16	13,14
21	13	15	14	16	13,14
22	11	9,10,11	11,12	15	11
23	11	9,10,11	11,12	15	11
24	11	9,10,11	11,12	15	11
25	10,11	9,10,11	11	13,14	10,11
26	12	9	12	18	12
27	12,13	9	14	16,19	12,14
28	12	9	15	17,20,21	12
29	10,12	11	12,15	21	11
30	1,3,13	2,15	2,14	2,16	1,2,9,13

*The figures refer to the Chapters of the works listed below:

Brigham, Eugene and James Pappas, and Mark Hirschey, *Managerial Economics,* 4th ed. (Hinsdale, Ill.: Dryden Press, 1983).

Douglas, Evan J., *Managerial Economics* (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1979).

Henry, William R. and Warren W. Haynes, *Managerial Economics,* 4th ed. (Dallas, Tex.: Business Publications, 1978).

McGuigan, James R. and Charles R. Moyer, *Managerial Economics,* 3rd ed. (Hinsdale, Ill.: Dryden Press, 1983).

Seo, K.K. and Bernard J. Winger, *Managerial Economics:* Text, Problems, and Short Cases, 5th ed. (Homewood, Ill.: Richard D. Irwin, Inc., 1979).

PREFACE

The managerial economics course continues to grow in popularity in both graduate and undergraduate programs, which is a gratifying experience to those of us who have taught it for a while. Although there is little doubt that managerial economics is a "hands-on" course, it performs this function best when it is rooted firmly in economic theory. This purposeful integration of both theory and application was the overriding concern in preparing this second edition, as it was in the first. Each case illustrates at least one element of economic theory, and the main thrust of each case is indicated in parentheses under its name. This should help adopters in deciding upon a set of cases for use in their class.

Grid Publishing and I are very pleased with the acceptance of the first edition, and this seems an appropriate time and place to offer our sincere thanks to those instructors who selected our text for their courses. Since many of these cases are both long and complex, it took a reasonable investment of your time to master them for classroom use, and we hope the return on your investment has made the effort worthwhile. Judging from your comments, that seems to be the case. Many of you appear to share my view that once you develop a course around casework—specifically, student presentation of cases—it is almost impossible to return to a straight lecture approach. For one thing, classes become enjoyable experiences (to the extent that work can be fun) and, for another, students seem to learn so much more; but the most important advantage is that they begin to see and really appreciate the application of economics to business decision making.

SUGGESTIONS FOR CLASSROOM USE

A number of approaches can be used with these cases. The one that works best will depend upon class size and the desired involvement of students in presenting case solutions. There are two kinds of cases in the text. The first group consists of cases that do not involve substantial calculations or lengthy analytical exercises. Their main purpose is to stimulate student interest and direct it towards problem areas. Cases in this category are numbers 1, 4, 6, 11, 12, 17, 20, 27, 28, and 29. This does not mean these cases are easy or take little time to do; on the contrary, it simply means the answers may consist more of essays, policy directives, or selected courses of action. I usually assign most of these cases but do not have students present them. They are discussed in class and used as vehicles to illustrate key points and the application of economic theory. The second group of cases—those not indicated above—are more quantitative and analytical. They vary in rigor from those that are not very difficult to some that are truly demanding. I rank the cases by rigor in the *Instructor's* Manual and adopters might want to look at this ranking prior to case assignment. Depending on class size, anywhere from six to ten of these cases will be assigned to all students, usually grouped together in two-or three-person teams. On the day of the presentation, a team is designated (or it may be selected at random) to present the case to the rest of the class. What usually follows is a spirited discussion of the presenting team's solution. A team approach seems to work best because of the obvious sharing of the workload, but also because it brings together different ideas and perspectives on alternative approaches. Naturally, it breaks down if students fail to work as a team, but this does not happen very often.

The above approach is only one way of using cases. There are many others. One instructor indicated that he found it useful not to assign any cases in particular—in fact, he asked students not to pre-read a case before class—but to select a case in class and walk the students through a solution, acting more as a director and motivator. He believes that classroom time can be spent more profitably showing applications rather than lecturing. He urges students to use their own time to read the text, since they can probably get through most of it by themselves. Obviously, the best approach is the one that works; that is, the one where students seem to learn the most and also to develop an enthusiastic attitude towards economics—important goals to most of us.

ACKNOWLEDGMENTS

Again, I would like to thank all adopters of the first edition. It is a humbling, but rewarding, experience when others share your work and react favorably towards it. In particular, I am indebted to Frieda Reitman of the University of Connecticut and Mark Schupack of Brown University for their helpful comments. A special thanks is due to my colleagues at the University of Dayton—Ralph Frasca, Lawrence Hadley, John Rapp, and John Weiler—both for their use of the text and for their suggestions to improve it. I am also grateful to Carl Chen of the University of Dayton for allowing me to use his case, "*San Antonio Guardian Savings and Loan,*" and to Duane Oyen of the University of Wisconsin at Eau Claire for permitting the use of his case, "*Redi-Mix Concrete.*" Each of these cases makes a unique contribution to the text. Last, but certainly not least, is the thanks due to Julie Welsh, who coordinated and took care of all those unpleasant activities such as typing, copying, and so forth.

While all of the above people assisted in the production of this work, any remaining mistakes, oversights, or bad logic are exclusively mine. Hopefully, there are few of these to make your life unpleasant.

Bernard J. Winger
Dayton, Ohio

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PART I
MAKING ECONOMIC DECISIONS

1

KAY-LON INDUSTRIES

TRADITIONAL VERSUS BEHAVIORAL ASSUMPTIONS IN ECONOMICS

After completing his MBA work at a midwestern university, Royce Hill accepted a position in the acquisitions and mergers department of Kay-Lon Industries, a conglomerate firm with sales in excess of $2 billion a year. Hill was an extremely capable individual with both excellent references from previous employers and an academic record that was almost perfect. He had concentrated in economics and finance in college and was well trained in the most current analytical techniques of those disciplines.

Since he was regarded so highly, Milton Kaynor, President of Kay-Lon, wanted Hill's first assignment to be a review of a research report the A and M staff had recently prepared concerning the possible acquisition of Carpenter Press, a manufacturer of high-speed printing presses. Kaynor instructed Hill to criticize the study in whatever ways he felt were appropriate.

Hill was delighted with the assignment and immediately began his review. After several hours, he had finished the entire report and he was very much surprised by its brevity, superficial analyses, and overall shallowness. The report was divided into five sections: a) expected ten-year growth of Carpenter's sales and earnings (two simple trend lines extrapolated ten years into the future), b) expected growth of the printing industry through 1985 (a verbatim reproduction of a four-year-old government study), c) balance sheet considerations (the usual potpourri of ratios), d) an appraisal of Carpenter's management team (pure subjective opinionating by someone on the A and M staff), and e) a conclusion not to purchase the company which was based on two factors—an unfavorable summary of items contained in the previous four sections and a payback period of 6.8 years which was 1.8 years in excess of Kay-Lon's acceptance figure. This last calculation really disturbed Hill since the cash flow figures used in the analysis seemed to be pulled out of the air and were completely independent of the work presented in the other four sections of the report.

Hill made note of his observations and then began to review some of the data Carpenter's management had supplied Kay-Lon. After a week of going over sales records, cost reports, and minutes of meetings of the top staff, Hill was convinced that Carpenter Press had not been managed in a very efficient manner. Specifically, Hill found the following facts:

1. The company was not aggressive in pricing its products. Hill noted that several times in the past when Carpenter did engage its closest competitor in a price battle, it seemed to emerge the victor. Nonetheless, when the competitor resorted to massive advertising outlays, Carpenter's management quickly raised its prices and resumed its live-and-let-live policy.
2. Continuing with his review of pricing, Hill observed that Carpenter employed a full cost pricing system that included return on assets as part of product cost. This pricing approach most likely explained one of Carpenter's poorer decisions—the disposal of a product line because the line failed to meet the required return even though the assets used in producing the products had no alternative use and were eventually sold as scrap.
3. Carpenter Press employed a percent-of-sales method in allocating advertising budgets among the various selling divisions. This method allocates larger shares of the current year's advertising budget to those divisions that had impressive sales performances in the previous year. Absolutely no attempt was made to estimate the impact of future advertising on future sales and then to use this information in allocating the advertising budget. Furthermore, no effort was made to determine an optimal amount of total advertising. It seemed that the total advertising budget for any year was almost perfectly correlated with sales—of the previous year. There were only several exceptions to this pattern and they took place during severe economic downturns when the advertising budgets were cut, both in total and by an equal percentage amount across all divisions.
4. In addition to the advertising cuts alluded to above, Hill was amazed at Carpenter's ability to make huge budget cuts during periods of economic stress. In the 1980-82 recession, some departments in the company reduced their budgets by as much as 40 percent—with no measurable decline in output! Hill admitted that these cutbacks enabled the company to withstand considerable financial shock, but he also wondered at how much fat must have accumulated in the budgets to begin with, and for what length of time
5. Finally, Hill observed that Carpenter Press had adopted some accounting methods regarding depreciation that appeared overly conservative in terms of their tax impact. The result, of course, was a somewhat higher tax liability based on a higher reported net income. Hill felt that if Kay-Lon acquired Carpenter, these accounting methods could be changed and this improvement alone would almost generate sufficient extra cash flows to meet Kay-Lon's five year cutoff figure.

In the report he provided Kaynor, Hill discussed these five points along with his commentary on the study prepared by the A and M staff. In conclusion, Hill indicated to Kaynor that he would be willing to work a few more weeks on the project in an effort to develop more useful information regarding the purchase of Carpenter Press. Kaynor liked the idea but wanted

Elizabeth Edwards, the present director of the A and M department, to review Hill's report. If she agreed, Kaynor would permit Hill to finish his work.

After several days, Ms. Edwards reported to Kaynor. First, she indicated that her staff had followed a standard research design in evaluating Carpenter, and further, she believed the work was about as thorough as one could make it. However, she would have no objection if Hill wanted to do a different study.

Second, Edwards totally disagreed with Hill's review of Carpenter's management. She made the following opposing observations:

1. Aggressive pricing in this industry could be disastrous. Even allowing for a slight competitive edge to Carpenter, is the uncertainty and risk of a situation like this really worth it? I feel the people at Carpenter knew what they were doing when they backed-off from active price competition.
2. Full cost pricing is widely used—we use it here and have used it for as long as I can remember. Hill's accusation that dumping the old press was a stupid move is totally unwarranted. This strikes me as more of this incremental cost analysis that we discussed last year. At that time we agreed that if you single out a specific decision, and look only at that decision, incremental cost analysis appears to give a better answer than full cost analysis. However, we have a policy to consider here as well as some single decision. Suppose Carpenter's management relaxed the 15 percent requirement. Then, the next thing you know, there is another project asking for an exception; then another, until pretty soon half the company is on the exception. Then, who or what covers all of the costs? What these incrementalists fail to understand is the policy implications of a single decision. We simply cannot live with a policy that condones operating at a loss, even though that might appear to be the best decision with respect to a single project. Furthermore, if you tell divisional managers that all they have to cover are their incremental costs, then you will quickly observe sales moving down to this lower expectation level. If anything, I favor periodically adding a little fictitious overhead to stimulate the managers to expand sales.
3. I certainly do not know what Hill proposes as a substitute for the percent-of-sales method for allocating advertising budgets. Divisional managers with impressive performances expect a larger share of this budget as a reward for their efforts. As far as cutting advertising in 1980-82, that is exactly what we did at Kay-Lon, and we also made across-the-board cuts in other budget items just as Carpenter did. There is no other way to deal with this kind of problem since all of the divisional managers can give you 100 reasons why their budgets should not be cut.
4. We knew Carpenter's management did a little "window-dressing" on their financial statements over the past several years. In fact, stockholder discontent with their present management team is the primary reason we are looking at the company as a possible acquisition. Hill reflects a lack of maturity when he suggests that we opt for more aggressive tax treatment if we acquire Carpenter. Does he want our shareholders to think we are buying a loser? Besides, the total tax bill will be the same regardless of how the assets are depreciated. We might have to pay more in the early years but we will get a benefit later on. So, it all seems to balance out and meanwhile we present a healthy earnings report for 1983.

5. Even if we are willing to grant that Carpenter's past performance could have been better, I fail to see how that influences our decision. I do not think we should pay one extra cent for **what we can do** with the company. Our purchase offer should be based on what they have done, and if their performance has been below average, then our offer should be adjusted downwards in accordance with that performance. That is why we did not recommend the purchase of Carpenter at their present asking price. Our payback figure reflected a logical extension of their performance into the future and as far as I can tell, that is the only reasonable way to evaluate the purchase.

Kaynor sensed a bit of hostility on Edwards' part and felt it would not be wise to continue the Carpenter Press investigation. However, he believed Hill had raised some interesting points that would be developed further—but not at the present time.

QUESTIONS

1. Do Hill's points seem sensible? Do Edwards' counter arguments also seem reasonable? Discuss, clearly spelling out your frame of reference for judging what is "sensible" and what is "reasonable."
2. Suppose you have the opportunity to work either in a company headed by Hill, or one headed by Edwards. Which would you prefer? Give and explain specific reasons for your choice.

2

DEVLIN NOVELTIES

DECISION THEORY USING DECISION TREES

Harold Devlin, one of three Devlin brothers who owned and operated Devlin Novelties, was given the task of ordering this year's line of items commemorating the winning baseball teams in the National and American Leagues. Each year, the company would buy an item, or items, and have the name of each team inscribed on it. These products are then sold outside the ballpark and in retail stores in the city of the winning team.

Success in merchandising products of this type consists of first making sure that products are available right after the last game of the league play-offs when fan interest is at a peak,[1] and then buying them at a low cost since there are considerable risks associated with this kind of activity. Devlin has usually been able to make a reasonable profit in this endeavor in the past, but the current year may be a different story.

The problem centers around the tight pennant race in the National League-western division. The season is down to the last two games and there are three teams—Atlanta, Cincinnati, and Los Angeles—that are still in the race. Cincinnati leads Atlanta by one game and Los Angeles by two. However, Cincinnati must play Los Angeles in the last two games of the season; so if Los Angeles were to win both games, it could tie Cincinnati and force a playoff with them. Meanwhile, Atlanta plays San Diego in its two remaining games and if it could win both games while Cincinnati loses two, it would become the western-division winner. If Atlanta wins one game and loses one while Cincinnati loses two, the season would end in a three-way tie. Finally, if Cincinnati wins both games, it becomes the western champion regardless of what Atlanta does.

In more normal years, the company's merchandising strategy was to buy merchandise representing both the eastern division and western division teams competing in the league playoffs. Commemorative items for the winning team were then sold as previously explained while commemorative