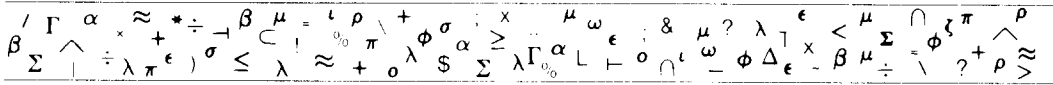


Editorial: Shared Information and the Zero-Sum Mentality

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In a slightly different context, Lester Thurow (1980) developed a view of America as a zero-sum society. His thesis (oversimplified) is that since political decisions produce losers along with winners, the expected losers, endowed with specific lobbying powers, can forestall decisions that might be for the general good of society. His prescription, redistribution of income, need not concern us here (and I will not discuss it further, wishing only to stimulate controversy and not open rebellion among readers).

The zero-sum concept, while perhaps new to macroeconomists, has long been gospel among business strategists. Whole battalions of those most productive members of our society, attorneys, are employed to protect our corporations from releasing any bit of knowledge that might benefit a competitor.

Is Management/Management Science a Zero-Sum Game?

Assume a business has significant zero-sum characteristics. Then, whatever revenue a firm loses or gains comes from the same limited pot as that of competitors. A natural implication is that increases in efficiency applied equally across the industry will have no tangible benefit.

To see the fallacy in this position, consider an industry in which every firm is overspending on advertising. No one knows about this overspending until one day when the situation is discovered simultaneously by all members of the industry. At once, all firms cut back advertising spending, and the profits (= operating efficiency?) of the industry go up. Impossible? What happened to the cigarette industry when TV advertising was banned?

As another example, a well known problem in bidding is the so-called "winner's curse," in which a bidder who underestimates his costs tends to bid low and increase his probability of winning a contract. Hence, winning bids are more likely to be bids based on improper costing information. Oil companies routinely share seismological information in joint bidding situations in order to temper the "curse."

Inefficiencies pervade industry, and the identification and correction of these inefficiencies is what our profession is about. The identification of what works and what doesn't work is made difficult by the lack of shared information. There are good examples of the value of shared information on a large scale. One is the PIMS program, Profit Impact of Marketing Strategy [Schoeffler, Buzzell, and Heany 1974], aimed at identifying efficient business strategies. PIMS has over 200 members sharing information on over 2000 businesses [Day 1981]. Such sharing of information is responsible for generalizations about business strategy not possible at the proprietary firm level. This is the reason the General Electric Company (the originator) expanded the program outside the corporation in the first place.

Why Isn't Management Science Experience Shared?

Most MS/OR journals cry for applications papers. This journal does so in particular. Why, then, is the cry so loud and the flow of articles so meagre? There are two possibilities. First, maybe little, if anything, that we produce as a profession

is worth much. The development of this theme has great comic potential, but I will restrain myself. Instead I will point to the College of the Practice of Management Science Prize Competition each year as evidence that our profession offers real, measurable value in a broad spectrum of application areas.

A second explanation is that the cost-benefit ratio is perceived to be low by the firms developing the application (or by the firms' attorneys). Why is this? On the cost side, there is the *perceived*, hungry competitor waiting greedily for publication of the details of your new vehicle routing system. Are ten journal pages summarizing three man-years of effort on a model, decision support system, and many ad hoc implementation tricks going

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to give away the farm? How many of you can implement a model from a software supplier, even when that model is designed to be transferable, without considerable technical service support?

The cost of man-time to produce and present the paper may be high, but this investment is a vital aspect of a professional development strategy leading to a more highly trained staff.

These "costs" are more ephemeral than real. The problem, then, must lie on the benefit side of the equation. What are the benefits to the firm? Currently, they are perceived to be small or nil. Hence, releas-

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ing information is perceived to be not worth the risk, however small that risk may be.

Increasing the Production and Release-Rates of Application Papers

The Harvard Business School has been remarkably successful in getting firms to participate in the preparation of cases, some of which contain information apparently far more confidential (and less flattering to the firm) than most of the material we would like to publish. This continual stream of case-studies released by firms results partly from a "moral imperative" among HBS graduates to release cases in the future so that the next generation will benefit as they did. It's like selling life insurance — a personal benefit argument is not relevant. A moral argument (heavy in guilt and obligation) seems to work best.

Academics can initiate this moral imperative in the classroom. Similar arguments, planted as seeds early in a consulting project, may bear fruit as well. Let's try it.

A second way to increase the release rate may be to use the opinion-leader/or

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innovative firm argument. Corporate or institutional advertising is justified on the basis of supporting stock prices and, hence, shareholder wealth. (A proprietary study suggests that about 4% of the vari-

ance in stock prices can be explained by the level of institutional advertising.) Reports of implementation of innovative management techniques can have the same effect. They provide a leadership image for the firm, one that the stock market often rewards with higher stock prices. We put the logo of the firm providing the lead article on the cover of this journal each month because firms value institutional advertising. If a call or letter from me to company management will help to release a paper, please ask me to do it.

Applications Reports: A Scientific Need

For the health of our profession as a whole, reports of implementation results (both successes and failures) provide short term benefit to practitioners. But, more important, they provide an experiential, experimental base testing approaches and methodologies. The next generation of methodological development in our profession demands such a base for guidance. Those practitioners who say academic research in MS/OR is mostly irrelevant may be correct, but that research cannot be relevant without the experiences, experiments, and cases needed to keep it on track. The scientific cycle of development-testing-new development brings progress, and it is the obligation of the MS/OR practitioner to share the results of methodological testing to keep the work of the MS/OR academic advancing in a healthy direction.

A Request

Nothing is more important in our profession today than detailed reporting of what works and what doesn't. Strategies

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for getting such work released need to be better understood. I will print letters-to-the-editor, perhaps as an occasional collection called the Release Strategy Forum, documenting how you got a firm to release your paper. Better yet, send the letter in as an accompanying note with your paper.

MS/OR can be a positive sum profession and your positive contributions are needed.

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