

## EDUCATOR'S FORUM

# Measuring Research Accomplishments

Shyam Sunder

**W**HY do so many people in accounting—in practice and in academe—think that accounting research is in trouble? What are the symptoms of this trouble? What are its causes? What can we do about it? I believe that some of these concerns are exaggerated. But we do have real problems. There exist simple solutions to these problems, and with some hard work, they can be implemented.

What are the symptoms of trouble in accounting research? First, accounting research should lead practice. Instead, it often follows. Unlike doctors and lawyers, accountants typically do not look to researchers, or research journals, for solutions to their problems. Arrival of each issue of the *New England Journal of Medicine* is awaited, and its reports are discussed, even outside the medical profession. Can we say something similar about our own publications? Doctors are galvanized into action to fight AIDS. Why does the savings and loan crisis receive so little attention from researchers? Second, there is little pressing demand for the expertise of accounting researchers from accountants, industry, or the regulators and government. Third, in a growing number of MBA programs at research universities, fewer students major in accounting, and teaching of accounting is becoming a service activity. An increas-

ing proportion of freshman and sophomore accounting courses are taught in junior colleges. Can accounting research in universities remain unaffected by this process?

And all this is happening at a time when the number of teachers of accounting, their salaries, the amount of funding and the time they spend on research, and the number of research journals have been increasing. It is possible that the root cause of these symptoms lies outside accounting research. Still, it seems prudent to ask if "the enemy is us" before we point our finger at others.

Many find accounting research difficult to read, either because it is too technical, or poorly written, or both. Certainly, it is desirable to communicate research in more accessible language. Our journals, including *The Accounting Review*, *Accounting Horizons* and *Issues in Accounting Education* have worked hard to do so. However, when it

---

*Shyam Sunder is Richard M. Cyert Professor of Management and Economics at Carnegie Mellon University*

---

*This paper is adapted from remarks made at a Plenary Session of the Annual Meeting of the American Accounting Association, August 11, 1990 in Toronto.*

comes to bridging the gap between researchers and practitioners, language is not the primary source of the problem, or the solution. We could have *The Accounting Review* rewritten by the editors of *The National Enquirer*, and still not sell many copies at the AICPA convention.

The main conduit for carrying research and innovation into practice is the classroom, not research journals. Research journals are test-beds for new ideas. Like most new products, new ideas also are trial balloons; they often fail because they have holes in them. These test sites are isolated from the population by their arcane language, and limit the damage inflicted by ideas which turn out to be flawed.

Some new ideas survive the intense scrutiny of the research journals long enough to be digested, simplified, and to get into somebody's lecture notes. Students and the uninitiated demand both simplicity and substance. Ideas that survive this filtration process appear in textbooks and are carried into practice by students. Only then is the effect of these ideas felt in business.

This is a slow process. It took about thirty years for the present value criterion to filter through the academic journals, lecture notes, textbooks, and classrooms into practical application. The same is true, in varying degrees, for inflation accounting, statistical sampling, and user-oriented accounting standards. It may yet come true of George Sorter's events approach, and of Yuji Ijiri's triple entry and momentum accounting.

Many problems of accounting research arise from our attempts to measure and reward research effort and accomplishment. Research is not susceptible to precise objective measurement. With all good intentions, we often ignore these limitations. In trying to conserve

our effort, we design and use objective, but ill-conceived measures to evaluate and reward research activity. Research efforts degenerate in response to such poorly designed rewards, giving rise to many of our problems. I believe we can avoid the use of poor reward functions, and recover the vitality of accounting research.

Research is an intensely personal process. All important aspects of research activity are not plainly visible to others. Some aspects of the activity are known, and can be evaluated by those who have close intellectual interaction with the researcher. For the others, one's research accomplishments must be documented to be appreciated. Even the documented work is evaluated by each of us subject to the limitations of our personal knowledge, interest, vision, and curiosity. Not surprisingly, different people often reach different conclusions about the same work.

This fundamentally subjective view of research makes us uncomfortable. If evaluation of research depends on who does the evaluation, surely it must be arbitrary and capricious, and ultimately unfair. It sometimes is.

In search for a better way, we seek out objective, verifiable, unbiased measures of research accomplishment. Rewards should be based on what others can observe; sole reliance on the researcher's claims carries moral hazard.

This search for objectivity takes three forms—counting of research papers, conduct and use of journal quality rating surveys, and transfer of responsibility for evaluation of research to distant—supposedly independent and unbiased—outsiders, such as journal editors, journal referees, and external reviewers. Excessive reliance on such methods not only fails to encourage research, it also promotes many of the ills of current accounting research.

Paper counting and citation indexes are symptomatic of the absence of an active intellectual process in the department. When an active research process is in place, colleagues in the department, and perhaps outside, understand the contributions, making the counting of papers meaningless. Rarely do research contributions correlate well with the number count. Even when they do, the use of such measures in performance evaluation encourages the worst of our "publish or perish" tendencies.

Journal ratings also erode collegial responsibility. Journal ratings appear to be such a good idea. They promise to make evaluation objective, free of collegial prejudice and add external expertise as reflected in the editorial process of the journals.

This process frees up time from having to read the work of our colleagues to discover if it makes any sense to us, and whether it supports the overall educational objectives of the institution at which they reside. Faculty are evaluated, not on the basis of what the colleagues know about their work and its contribution to learning, work environment, and the educational process, but by sanitized measures that ignore a great deal of what we value among ourselves.

Research should be read and understood, not counted. If my colleagues cannot or do not read my research and give me their reactions to it, I am either at the wrong place, or doing the wrong kind of work.

The third device used in search of objectivity is the transfer of the primary responsibility for evaluation of research to the outsiders. Outsiders can play a legitimate role in providing a broader, perhaps apolitical perspective. Still, no matter how objective and conscientious they are, editors and reviewers of research journals are often poorly informed

of the context in which the research is conducted. Editors and reviewers also are pressed for time and have to search for short cuts to manage their thankless chores. We all have our favorite stories about cases in which the editorial process breaks down. A dozen or two editors and a few hundred reviewers simply do not have the time to bear the burden of continually evaluating the research of thousands of accounting faculty who they do not know.

Too great an emphasis on outside evaluations induces the faculty to direct their energies to research that they believe is appreciated better by the outsiders who are unfamiliar with the special context of their own school. Investment in transportable intellectual capital is increased at the expense of the school-specific intellectual capital. Such research effort can easily become a drain on a university's resources, without making a corresponding contribution to the educational process.

As researchers, we are often tempted to pursue technical findings; collegial pressure can induce us to tease out their substantive meaning and implications for practice, and to take our findings to the classroom. Society's return on its investment in research could be increased if this effort were evenly distributed across various segments such as abstract research, interpretive research, applications development, and pedagogical development (see Williams [1990]). Excessive reliance on external evaluations pressures faculty to move toward the more abstract end of the research spectrum, even if their personal talents are more suited for other work.

To summarize this argument, research accomplishments are difficult to evaluate. The import of some innovative ideas may not be recognized for years. Popular new ideas may turn out to be vacuous, and new solutions may be in-

effective. There is no easy, surefire way of evaluating research achievements. We have to discard the illusion of objective evaluation, and the fear of asserting our own assessments. There is no perfect solution to this problem. The best we can do is to keep the primary responsibility for evaluation at home, to take the time to read the work of our colleagues, and to make up our own minds about their contribution.

Even as I urge such a change, we have reason to celebrate our achievements of the past, and look forward to exciting new directions of accounting research. Technology of accounting remained virtually unchanged over a long time. Development of writing media from stone and clay to paper took thousands of years. Invention of the place value system simplified the arithmetic in the fifth century, and the double entry system has been in use since at least the fourteenth century. In spite of drastic socio-economic changes—such as industrial revolution, joint stock companies, separation of management from ownership, etc.—the technology of accounting remained essentially stable.

Beginning the mid-twentieth century, we have seen revolutionary changes in accounting technology. Space needed to store records and data, the time needed to transmit data and instructions, and to compute, format, and print—all have changed by several orders of magnitude. All these elements of accounting now cost only a fraction of what they did under the older technology.

The first applications of the new technology, understandably, involved faster processing of familiar tasks such as payroll, billing, inventory control and bookkeeping. More fundamental effects of this technology on accounting and business are only beginning to appear now.

When automobiles first became available, they were seen simply as replacements for horse and buggy. However, as people came to realize that the old constraints of time and distance were no longer applicable, the automobile caused fundamental changes in the layout of cities, the highways, the way people live, work, and play. It changed the whole society.

The pervasive effects of the automobile on society are a good way to think about the revolutionary changes in business organizations and management practices due to information technology. It is only in the eighties that the new computer technology began to affect the structure of accounting and business organizations in more fundamental ways. Inevitably, it is a time of excitement and disarray. Many of the information constraints on business organizations have vanished. Managers and accountants struggle to redefine their work, organizational structure, and control systems. The demand for their traditional services stagnates or declines.

To avoid becoming an endangered species, accountants adapt to this new environment by providing new services that may define their profession in the future. Certainly, the work and tools of the accountant of the year 2000 will be very different from the accountant of the year 1950.

It would be suicidal for researchers to confine their endeavors to solving problems of a vanishing managerial regime. Why waste time designing a better harness for the horses when they are about to be replaced by a Model T? Not surprisingly, researchers have responded to the challenge of new technology by opening the windows of accounting research to fresh ideas from many different disciplines. Accounting research now has, what Yuji Ijiri light-

heartedly calls AIDS—"acquired interdisciplinary syndrome." This means a no-holds-barred exploration of information-related tasks and control systems in the new managerial environment. I have already mentioned events approach to accounting and triple-entry accounting. We could add databases, EDP auditing, expert systems, compensation system design, computerized financial analysis and forecasting, and stock trading and trading support systems, to name just a few.

As these ideas mature, in academia and in practice, accountants will be introduced to their jargon, and trained in

their application. The fact that somebody who graduated in 1970 would need special retraining to understand and use the new tools of the year 2000 is normal and to be expected. This gap between practice and research is desirable; it is the source of hope for the former, and reason for existence of the latter. It would be undesirable if researchers fail to conceptualize efficient ways of performing the information tasks in organizations of the future. These tasks may resemble current accounting practices no more than gas stations resemble stables.

#### REFERENCE

- Williams, D. Z., "The Challenge of Change in Accounting Education," *Issues in Accounting Education* (Spring 1991), pp. 126-133.