

DECISION LINE

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PRESIDENT'S LETTER *Decision Sciences— The Next Millennium*

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Recently I had the privilege of attending the 1999 Annual Meeting of the Asia Pacific Decision Sciences Institute (APDSI) where I joined a distinguished group of speakers on the platform. The speakers included Professor Wang Shenghong, president of Fudan University, Japhet Law, associate dean and dean-elect of the Faculty of Business Administration of the Chinese University of Hong Kong, Professor Clay Whybark, University of North Carolina, and Mr. Xin Guo, Arthur Andersen Consulting. At lunch, Mr. Qi Fan Huang, deputy secretary-general of Shanghai City, welcomed the conference attendees and told us about the interesting economic plans the Chinese government is implementing. Professor Jinichiro Nakane, program chair for the 2000 APDSI Meeting in Tokyo, whet our appetites for next year's conference. Conference Co-chairs T.S. Lee, Eden Yu, Andrew Pan, and Huacheng Xue, and Program Co-Chairs Linda Ng and Huang Lihua, with the help of many others, collaborated to produce an exciting program. There were more than 200 attendees from thirteen countries.

This letter contains the main points of my presentation in the plenary session and breakfast. I draw from the President's Letter written by my predecessor, Chuck Taylor, (*Decision Line*, Vol. 20, No. 4, July 1989) and an article I co-authored with Linda Sprague and Larry Ritzman ("Production Planning, Inventory Management and Scheduling: Spanning the Boundaries," *Managerial and Decision Economics*, 1990, Vol. 11, pp. 297-315).

Who Are We?

1999 is a special year for the Decision Sciences Institute. This year we celebrate our 30th anniversary, and it is appropriate to reaffirm who we are. The Institute has 4,200 members worldwide. Last November, we had record attendance of 1,816 at our annual meeting in Las Vegas, thanks to Mike Parent and a host of others. However, we are more than numbers. We seek to be the premier professional organization of choice for business scholars. Specifically,

Decision Sciences is the union of the quantitative and behavioral approaches to managerial decision making, encompassing all of the functional areas of business. The Decision Sciences Institute is

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an interdisciplinary association of professionals committed to the understanding and improvement of decision making in organizations, and to the development of scholar-teachers in the decision sciences. The Institute provides an international forum for the exchange of research in the decision sciences across disciplines, seeks to promote and integrate theoretical and applied research and is an outlet for the publication and dissemination of current thinking in the decision sciences.

While that statement describes the Institute, each year the Board of Directors reevaluates prior goals and establishes a revised set of goals for the near future. This year the Board approved the following six goals:

1. *Develop an information system for the Decision Sciences Institute that captures information about members, generates information needed by members, supports Institute decision making at all levels, and uses current Web-based decentralized technology.*

This plan has a three-year time horizon, and we are presently in the process of procuring the first part of that system—a membership data base. This system will enhance information exchange worldwide and improve our service to members. Our plans for this system include developing a capability to allow members to identify other members with the same research or teaching interests. It will facilitate electronic forms of publication and provide a means to share research and teaching communications. This is a big effort and it will take some time to do it right.

2. *Enhance member services.*

This goal has two elements. First, we are seeking ways to improve the annual meeting by:

- a. Increasing participation by prominent individuals.
- b. Providing more opportunity for collegial interaction.
- c. Enhancing placement opportunities for doctoral students.
- d. Adding innovative changes or additions.

It is clear that we have been doing many good things at our annual meetings, given our attendance numbers. However, we should not become complacent and overlook ways to improve. Increas-

ing the participation of prominent individuals, both academics and practitioners who can provide visionary insights or pragmatic realism, will help make our meetings an exciting place to be. In addition, we found from the recent membership survey conducted by Scott Shafer that collegial interaction is the single most important reason our members come to the annual meetings, and that we can improve on that dimension. Further, we feel that doctoral students are the lifeblood for the Institute, and that we should do whatever we can to make the annual meetings a rewarding and educational experience. One way to provide value is to offer the broadest range of placement opportunities for them, ranging from top research schools to the top teaching schools. Finally, we should think of innovative changes to the activities we do at the annual meetings, their delivery, and their timing, so as to address current hot topics in the decision sciences and to provide the best format for exchanging and discussing the issues.

The second part of this goal addresses the need for professional development in teaching, curriculum, and scholarship by:

- a. Enhancing professional development offerings at the annual meeting.
- b. Developing specialized conferences.
- c. Exploring new approaches for recognizing innovative teaching developments.

Professional development is a key service we can provide to our members, yet we need to consider such development activities for all stages of the academic career. In addition, there may be advantages to providing these activities at a venue different than the annual meeting, at a time and place that least conflicts with other professional meetings. Finally, we need to increase our recognition of innovative teaching developments, perhaps through the introduction of an academically respected publication of some sort.

3. *Increase membership and participation of all disciplines.*

The focus of this goal is to promote activities designed to involve active participation of all disciplines at the annual

meetings and to promote the publication of papers addressing multi-disciplinary topics.

4. *Increase the globalization of the Institute.*

In this day where instantaneous worldwide communication is commonplace, it is mandatory that the Institute embrace its international colleagues and promote activities that facilitate the exchange of ideas. The bi-annual international DSI meetings and the annual APDSI regional meetings are good examples of such activities.

5. *Promote the development and dissemination of research having educational significance and managerial relevance.*

The Institute was founded on the principles that research should have managerial relevance and that the research we do should have value in the classroom. We strive to provide the venues for the development and dissemination of such research.

6. *Expand interdisciplinary activities.*

We seek to promote activities involving more than one discipline through the programs at our annual meetings, *Decision Line*, and the *Decision Sciences* journal. The multi-disciplinary character of DSI should foster joint activities among disciplines. After all, in our classrooms we teach that firms should break down barriers between the functional areas. Consequently, we should lead the way to break down the functional barriers in academia through our activities.

DSI Highlights

Given the event of our 30th anniversary, let's trace some of the significant events in our history. Our beginnings were quite modest. In fact, 30 years ago many of you may have been too young to know about, or even care about, the Decision Sciences Institute. We have come a long way since then.

April 10, 1968. The beginnings of our organization can be traced to a letter sent by Dennis Grawoig, Georgia State University, to approximately 1,000 faculty members at colleges or schools of business. Grawoig promoted "some type of association for business school faculty members

interested in quantitative methods.” He noted that such an association “could be a clearing house for recruitment,” and “some publication could be developed to record research in our field.” “Meetings, or seminars, could be held to provide a forum for coordination and discussion of quantitative programs.” He closed by asking if the letter recipient would be willing to establish such an association or join if an association were established.

November 1, 1968. A preliminary organizational meeting was convened with 25 participants in attendance. The concept of an association was discussed. Dennis Grawoig was elected the executive director, and a seven-member executive committee was formed. Two weeks later, the executive committee selected a name for the association—*The American Institute for Decision Sciences*—because its acronym, AIDS, “had meaning” and was “catchy and easy to pronounce.”

December 6, 1969. The organization was incorporated in Fulton County, Georgia. The Executive Committee proposed to start soliciting members, with dues set at \$10 until January 1970, and \$12 thereafter. Those members joining before January 1, 1970, were designated as Charter Members. To get things started, the executive committee members became the first officers of the organization: Dennis Grawoig as president, Al Simone as vice president of publications and journal editor, Frank Greenwood as vice president of academic affairs, Fred Kindig as vice president of membership, Bob Hoeke as vice president of programs and meetings, and Rodger Collons as secretary. Dennis Grawoig served as president for two years, as executive director until 1985, and executive director emeritus until his untimely death in 1989 due to illness.

April 18, 1969. Twenty-six participants attended the meeting in St. Louis at which the American Institute for Decision Sciences was dedicated.

Oct. 30-31, 1969. The first annual meeting was held in New Orleans with the theme “Decision Science: Model for the Future.” Some of the highlights were:

- 10 paper sessions, 30 papers, 3 tutorial sessions, 1 panel discussion, and a cocktail party.
- \$5 registration fee; \$17 for a room; 100 attendees at the meeting.

- There were 350 total members of the Institute

December 1969. Board of Directors met to discuss the initiation of the new journal, *Decision Sciences*. Concerns were expressed over securing only 30 library subscriptions and limited funding. The first issue was published in 1970 with 17 articles and Al Simone as editor in chief.

May 1970. The first regional meeting of the Institute was that of the Midwest Region, organized by Program Chair Stan Hardy and held in Columbus, Ohio. Following closely thereafter, the Southwest Region’s first meeting was held in Dallas, Texas, in March 1971, with Phillip Taylor as program chair. Sang Lee was the program chair of the first meeting of the Southeast Region in Blacksburg, Virginia, in April 1971. The Western Region met for the first time in Sacramento, California, in May 1971, with Bob Hopfe as program chair. Tom Vollmann served as program chair for the first Northeast Region meeting in Boston, in May 1972. The first meeting of the Asia Pacific Region was held in June 1996, in Hong Kong, with Program Co-Chairs Kee Young Kim and Kar Yan Tam and Chair of the Organizing Committee Ho Guen Lee.

1974. *Decision Line*, the Institute’s newsletter, was initiated.

1986. The Institute’s name was changed from the American Institute for Decision Sciences, whose acronym AIDS became linked with the disease, to the Decision Sciences Institute, or DSI.

What has happened in the last decade? In the last ten years the Institute has made a commitment to become more international in its activities and programs. There were several significant events that are especially noteworthy.

June 1991. The Institute held its first international meeting in Brussels, Belgium. It was organized by Co-Chairs Alain Ruttians and Linda Sprague with the help of Associate Chairs Dan Reid and Clay Whybark. The success of that meeting spurred the organization of four more international meetings:

- **1993.** Seoul, Korea – Co-Chairs Soo-Il Kwak and Bob Markland with Associate Program Co-Chairs Kee Young Kim and Chan Hahn.
- **1995.** Puebla, Mexico – Co-Chairs Benito Flores and Manuel Mancebo.
- **1997.** Sydney, Australia – Chair and Program Co-Chair Norma Harrison and Program Co-Chair Miles Nicholls

- **1999.** Athens, Greece – Conference Co-Chair and Program Chair Stelios (Steve) Zanakis and Conference Co-Chair Georgios Doukidis.

1993. The Institute added the position of global development coordinator. Bob Markland was recently re-appointed for a three-year term.

1994. The Institute formed its first international region, APDSI.

1999. The Board of Directors established Country Representatives to improve communications for international members.

Now we will be celebrating our 30th anniversary in New Orleans, where it all started. Tom Jones has planned an outstanding conference, along with some surprises for the celebration. We certainly have a lot to celebrate about!

The Strengths of DSI

What makes DSI well-positioned to make significant contributions to teaching and research of the decision sciences into the next millennium? As I look at the membership of the Institute, and the activities at the annual meetings and this APDSI Meeting in particular, I see the elements right here. We are researchers and teachers looking for improved decision-making practices and innovative teaching approaches. We are a group of multi-disciplinary academics who are interested in addressing meaningful decision problems in organizations. Furthermore, we are an institute that promotes cross-functional studies, an international focus, and synergies between research and teaching. With all of this, how can we advance the field of decision sciences?

We must work together and learn from each other. Each of us has our own perspectives and skills. Take research for example. As I look at the titles of the papers at this APDSI meeting, and those of the *Decision Sciences* journal that I had the privilege of editing for six years, I found that there are four groups of researchers in any discipline.

Theorists. These researchers focus on new constructs, dogmas, or changes in thinking; they attempt to define the problem anew in order to provide improved insight. For example, Jay Forrester’s *Industrial Dynamics* vividly showed the complex interaction of the flows of information, materials, money, manpower, and

capital equipment, and how they interlock to amplify one another to cause change and fluctuations. This theory is the basis for much of the work being done today on the so-called supply-chain whiplash effect. Examples of other theories include the incorporation of managerial judgment in the decision process (Managerial Coefficients Theory), top-down planning (Disaggregation Theory), and the incorporation of multiple objectives in decision making (Multiple Attribute Decision Theory). Today we need theories that incorporate the behavioral aspects of decision making and other criteria such as market priorities or competitiveness. Research that questions the commonly accepted paradigm of top-down planning is also needed as the concepts of the "horizontal organization" and team decision making become more prevalent in practice.

Methodologists. These researchers focus on research methodologies, analytic procedures and techniques, or novel ways of solving problems. We are all familiar with traditional methodologies such as linear programming, nonlinear programming, dynamic programming, simulation, heuristics, and surveys. Some of the newer methodologies include genetic algorithms, analytical hierarchy process (AHP), case studies, structural equation modeling (SEM), neural nets, and data envelopment analysis (DEA). While we have a myriad of methodologies at our disposal, they often fall short of satisfying the complete need in a real decision problem. We need methodologies that incorporate the complexities of real problems without becoming unmanageable. The difficulty is that many significant decision problems are less structured than those the existing methodologies were designed for.

Problemists. The primary focus of these researchers is the problem itself, with methodology or technique secondary; the work is typically decision oriented and prescriptive. These researchers often exploit the advantages provided by the methodologists and attempt to glean managerial insights from an analysis of the problem. For example, in the operations management area, this work is exemplified by the analysis of dependent demand systems (material requirements planning and master production scheduling) and supply

chains. These researchers drive the need for more complete and elaborate methodologies as more complex problems are addressed. The complexities arise from a number of sources, such as consideration of more than one problem simultaneously (production planning and work force scheduling), interactions between functional areas (marketing and financial considerations in a production schedule), and the advent of new information technologies (Enterprise Resource Planning and the Internet).

Empiricists. These researchers glean the lessons to be learned directly from practice. Field data are often used to examine the problem area. Data are obtained from cases, individual company records, or actual decision makers. Immediacy is often a concern here, with a focus on practical importance. Examples from operations management include Wickham Skinner's notion of manufacturing as a competitive weapon, Hayes and Wheelwright's product/process life cycle matrix, and Stalk's time-based management. Over the years we have developed survey-based research and case study analysis so that many of the earlier findings taken from observation of practicing managers can now be scientifically tested. Nonetheless, the Empiricists provide the insights from practice that the Problemists, Methodologists, and Theorists need for their own work.

Each of these researchers—Theorist, Methodologist, Problemist, and Empiricist—has a unique point of view; however, the strength comes from synergy. Which group do you belong to? What have you done to learn the developments in other groups? Much needs to be done in all areas. Theories must be developed that explain decision making behavior in this complex age with rapidly changing technology. Methodologies must be developed to address the complexity of these decision problems. Significant problems that contain the realities of actual situations must be addressed. Empirical data and information on current practice is needed to focus research efforts on meaningful issues. DSI brings these researchers together at its annual meetings, international meetings, and regional meetings, but we must take advantage of these opportunities for collaboration.

Conclusion

The Decision Sciences Institute is positioned to draw together an eclectic group of scholars and provide a forum for truly cross-functional, international studies in decision making. Take the Asia-Pacific Meeting, for example. Where else can you attend a meeting where 13 countries are represented, each functional area has at least one session, and each session has paper presenters from different countries? Similar experiences can be had at the international meetings, such as the one in Athens. Take advantage of these unique opportunities to collaborate with your international colleagues on research and teaching activities. The Institute is preparing for the next millennium, and you will be a major part of it. Let us know how we can serve you better. ■

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Lee J. Krajewski strikes a perfect balance at the Asia-Pacific Decision Sciences Institute Regional Meeting in Shanghai.