Winter 2004

The Smith School's faculty research interests encompass a broad, dynamic mix of functional and netcentric economy issues. The Smith School has numerous research projects ongoing, and Research@Smith is the medium to keep you informed about many of these projects.

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WORKING PAPERS

A selection of working papers by **Smith School faculty** currently available **online** at www.rhsmith.umd.edu/smithresearch/

Gurdip Bakshi and Frank Zhang.
"Lending a Helping Hand? Fed Interest-Rate Changes and Stock Market Performance"

J. Robert Baum.
"Entrepreneurial Orientation and Strategic Decision Speed: The Role of Automatic Compressed Experience and Experimentation"

Zhi-Long Chen and N.G. Hall.
"Maximum Profit Scheduling"

Wilfred Amaldoss and Sanjay Jain.
"Conspicuous Consumption and Sophisticated Thinking"

ABOUT THIS ISSUE

We have dedicated this Research@Smith to reporting on some of the significant research conducted by three members of the Smith School management and organization faculty: Anil K. Gupta, Saras Sarasvathy, and Deborah L. Shapiro.

Their research represents the outstanding thought leadership that is the hallmark of the management and organization (M&O) department at Smith. For years, members of the M&O faculty have made important contributions to the body of knowledge that serves as the foundation for business practice, in suchareas as strategy, innovation, organizational behavior, human resource management, and entrepreneurship.

Members of the department have taken leading roles in the Academy of Management (AOM), the preeminent professional association for scholars in management and organization. Five members of the Smith faculty are AOM Fellows, and one of them, Kathryn A. Bartol, Robert H. Smith Professor of Management and Organization, is dean of the Fellows. Further, Ken G. Smith, Dean's Chaired Professor of Business Strategy, was elected vice president of AOM last August, and will assume the presidency of the association in 2007.

In this newsletter, we can offer only a sample of some of the research currently under way by M&O faculty members. For a comprehensive look at the group's work, I invite you to visit www.rhsmith.umd.edu/mao/.

Thank you.
Howard Frank, Dean

KUDOS

Nenjing Ju, Hayne Leland, and Lemma W. Senbet.
"Options, Option Repricing and Severance Packages in Managerial Compensation: Their Effects on Corporate Risk and Dividend Policies"

Wolfgang Jank and P.K. Kannan.
"Understanding Geographical Markets of Online Firms Using Spatial Models of Customer Choice"

Myeong-Gu Seo.
"Understanding Employee Responses to Post-Merger Organizational Change Processes"

Gilvan C. Souza, Barry L. Bayus, and Harvey M. Wagner.
"New Product Strategy and Industry Clockspeed"

Katherine Stewart and Sanjay Gosain.
"Impacts of Ideology, Trust, and Communication on Effectiveness in Open Source Software Development Teams"

A paper by Michael Ball, Orkand Corporation Professor of Management Science, Thomas Vossen (Smith School Ph.D. '02, now University of Colorado at Boulder), Robert Hoffman, and Michael Wambsganss (both of Metron Aviation Inc.) was named Best Paper in Traffic Flow Optimization at ATM 2003: 5th USA/Europe R&D Seminar sponsored by the Federal Aviation Administration (FAA) and EuroControl.

Bruce Golden, France-Merrick Professor of Management Science, was awarded the 2003 INFORMS Prize for the Teaching of Operations Research/Management Science (OR/MS) Practice. The award from INFORMS, the Institute for Operations Research and the Management Sciences, recognizes Golden's "extraordinary dedication" to teaching the practice of MS/OR and his impact on students over the past 27 years. The prize was awarded in October 2003 at an INFORMS meeting in Atlanta.

A paper by Steven Heston, assistant professor of finance, and co-authors Peter Christoffersen and Kris Jacobs of McGill University, won the Montreal Exchange Award presented at the September 2003 conference of the Northern Finance Association. The paper's title is "Option Valuation with Conditional Skewness."

David Kirsch, assistant professor of strategy and entrepreneurship, was awarded the IEEE Life Members' Prize for his paper, "Visions of Transportation: The EVC and the Transition from Service- to Product-Based Mobility," co-authored with Gljs Mom of Technical University of Eindhoven (Netherlands). The paper appeared in the Spring 2002 issue of Business History Review.

Three members of the Smith School's accounting and information assurance faculty are mentioned in the article, "Prolific Authors of Accounting Literature," which appeared in Volume 20of Advances in Accounting (2003). The rankings are based on the number of articles by an author published in the top 40 accounting journals over a 35-year period, 1967–2001. The Smith scholars recognized are Lawrence Gordon, Ernst & Young Alumni Professor of Managerial Accounting, who was ranked in the top one percent of all researchers; Stephen Loeb, Ernst & Young Alumni Professor of Accounting and Business Ethics; and Oliver Kim, Ernst & Young Professor of Accounting.

Stephen Loeb and co-author Daniel Ostas of Oklahoma University recently received The Ralph C. Hoeber Award for outstanding article 2002–03 in The Journal of Legal Studies Education. Their paper, “Teaching Corporate Social Responsibility in Business Law and Business Ethics Classrooms,” appeared in the Winter/Spring 2002 issue.

Gordon Phillips, associate professor of finance, has been named associate editor of the Review of Financial Studies.

S. Raghavan, assistant professor of management science, was awarded second place in the inaugural INFORMS Junior Faculty Paper Competition for his paper, “Long Distance Access Network Design,” co-authored with R. Berger. The paper is forthcoming in Management Science.

Violina Rindova, assistant professor of management and organization, has been invited to join the editorial board of Organization Science.

Roland Rust, holder of the David Bruce Smith Chair in Marketing, director of the Center for Excellence in Service, and chair of the marketing department, was awarded the Marketing Science Institute’s 2003 Robert D. Buzzell Best Paper Award for the paper, “Driving Customer Equity: Linking Customer Lifetime Value to Strategic Marketing Decisions,” with co-authors Katherine N. Lemon of Boston College and Valarie A. Zeithaml of University of North Carolina. The award honors papers that have made a significant contribution to marketing practice and thought and are of lasting value to corporate marketing executives. Rust is the first person to win the award two consecutive years.

Debra L. Shapiro, professor of management and organization, has been elected to the Societyof Organizational Behavior.

Can We Talk, and Should We?

Research by Debra L. Shapiro

THE DUAL TRENDS OF GLOBALIZATION AND TEAM-BASED WORK ENVIRONMENTS HAVE RESULTED IN THE PROLIFERATION OF MULTICULTURAL TEAMS (MCTS). WHILE EVERY TEAM GOES THROUGH EMOTIONAL AND TASK-ORIENTED CONFLICT IN PURSUIT OF ITS GOALS, SOME DISCORD IN MCTS CANNOT BE SOLVED BY CONVENTIONAL CONFLICT MANAGEMENT SOLUTIONS. EMOTIONAL CONFLICTS ARE PARTICULARLY CHALLENGING, BECAUSE OF FUNDAMENTAL CULTURAL DIFFERENCES IN CONFLICT RESOLUTION METHODS AND PREFERENCES.

Research by Debra L. Shapiro, professor of management and organization at the Smith School of Business, offers several recommendations on how to solve emotional conflicts in MCTs. These recommendations, along with the theorizing that led to them, will appear in an article to be published in the spring 2004 issue ofthe Academy of Management Review. The article is co-authored by Mary Ann Von Glinow of Florida International University and Jeanne M. Brett of Northwestern University.

“We were compelled to explore this topic because we wanted to alert management scholars and practitioners to the need to question the commonly offered advice to use management practices (such as team assignments) in ways that are consistent with the norms where the team is located,” Shapiro says. “Although we recognize the importance of cultural sensitivity, the latter advice seems inadequate for the increasingly common situation involving MCTs whose members are often collaborating through virtual means across continents. How can a team strike a balance that accommodates all team members? This is a crucial issue in the global economy.” In the introduction to their paper, the authors assert: “The common prescription for managing emotional conflict seems to involve ‘talk,’ or candid dialogue among those in conflict for the purpose of repairing a strained relationship. We question this advice.

Our skepticism about the general utility of the advice to talk out emotional conflict is grounded in our recognition that MCT members may not always be able to talk; and even if they can, talk may not be viewed as an appropriate way to manage conflict.” Guided by past findings reviewed in their paper, Shapiro and her colleagues theorize that MCT members’ ability to talk can be hindered by three primary factors: 1) the general difficulty people have in placing thoughts and feelings into words, particularly in emotional situations; 2) the lack of emotional word-equivalents across cultures and languages; and 3) the obstacle of understanding cultural “contextualization-conventions,” particularly those conventions embedded within one another.

An example of a contextualization-convention is the use of sarcasm in U.S. society that can easily be misunderstood by those with a different cultural background.

These difficulties are further complicated by the fact that cultural norms may not view talk, or direct confrontation, as desirable, even when possible from a communication perspective. As Shapiro and her colleagues explain, talk is a Western-biased notion that presumes addressing conflict head-on is the most appropriate method to resolve differences. However, talk can intensify interpersonal tensions in the group and can be counterproductive to the effectiveness of the team. Therefore, the weaker the team consensus on the value of talk, the less effective talk will be as a method of conflict resolution.

The researchers propose several alternatives to talk that may be appropriate for managing interpersonal conflict in MCTs. First, the creation of visual aids by team members to illustrate their thoughts and emotions can be useful in initiating discussion of conflict. These so-called “right-brained” activities, such as drawing, cognitive sculpting, and physical demonstrations, facilitate the communication of feelings and emotions. Tapping into visual and perceptual thought, often much more descriptive than spoken words, enables communication between team members beyond the limitations of language and culture.

Second, the researchers suggest sharing aesthetic activities, such as singing or drawing, as a means to resolving emotional conflict. For example, in a coordinated memorial event September 11, 2002, at 8:46 a.m., a moment of silence was observed to honor the victims of the 9/11 tragedies. Instead of speeches following the moment of silence, the ceremony began with a series of songs, sung in unison around the world by various groups. While not directly related to conflict management, the ceremony illustrates a choice to share emotions through aesthetic channels, instead of talk. In the workplace, Wal-Mart’s use of cheers and chants at every store to begin the day is a classic example of the sharing of aesthetic experiences to build team unity.

In addition to proposing methods for managing emotional conflict, the researchers suggest it may be useful for businesses to train MCT members to expect emotional conflict and to help them understand the reasons behind it. Shapiro notes that the interventions identified in her article are nontraditional, given their emphasis on actions for repairing relationships that exclude talk, which is usually an integral part of negotiation, mediation, and other typical remedies for resolving interpersonal differences. She believes that thinking nontraditionally, however, is necessary if we are to think “out of the Western-biased box” that she and many conflict-management scholars have tended to be in.

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EFFECTUAL REASONING IN ENTREPRENEURIAL DECISION MAKING

Research by Saras Sarasvathy

MUCH OF THE SCHOLARSHIP ON ENTREPRENEURSHIP HAS SOUGHT TO DISCOVER THE REASONS FOR THE SUCCESS OR FAILURE OF NEW VENTURES OR ATTEMPTED TO IDENTIFY THE TRAITS OF SUCCESSFUL ENTREPRENEURS. BUT A SMITH SCHOOL PROFESSOR HAD A DIFFERENT MOTIVATION.

"I was interested in developing an understanding of what I could teach," says Saras Sarasvathy, an assistant professor of entrepreneurship. "I wanted to determine if there was such a thing as entrepreneurial expertise." Unlike personal attributes or control over market forces, expertise can be learned. As a doctoral student under Nobel Laureate Herbert Simon at Carnegie-Mellon University, Sarasvathy used cognitive science to explore ideas in management. In particular, she utilized "verbal protocol analysis" to study the decision-making processes of expert entrepreneurs. This method involves recording the "thinking out loud" of subjects as they solve problems and then analyzing the transcribed tapes. Sarasvathy was the first to use verbal protocols to study entrepreneurial decision making.

For the study, she developed a 17-page problem set of 10 typical decisions faced by start-up organizations. Thirty experienced entrepreneurs from across the U.S.—founders of multi-million- and multi-billion-dollar companies in a variety of industries—were each audio-taped as they worked their way through the problem set. A rigorous analysis of the transcribed tapes (27 were used) revealed that a majority of the entrepreneurs did employ a distinctive form of decision making, one that Sarasvathy labeled "effectual reasoning."

Effectual reasoning may be thought of as the inverse of causal or predictive reasoning, the typical method most people are assumed to employ. As Sarasvathy explains, "Causal rationality begins with a pre-determined goal and a given set of means, and seeks to identify the optimal … alternative to achieve the given goal.

"Effectual reasoning does not begin with a specific goal. Instead, it begins with a given set of means and allows goals to emerge over time (in the entrepreneurship context) from the varied imagination and diverse aspirations of the founders and the people they interact with."

According to Sarasvathy, an entrepreneur's "means" comprise his or her personal traits, tastes, and abilities ("who they are"); experience and knowledge ("what they know"); and social and professional networks ("whom they know"). The impact of individual means on new venture creation was demonstrated in her study, when the 27 subjects "built" companies in 18 different industries starting with the same imaginary product.

Sarasvathy's findings support her contention that the creation of organizations, markets, and industries by expert entrepreneurs is the result of effectuation. Her paper proposing this theory, "Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency," attracted notice both academically and in the popular business press when it appeared in the *Academy of Management Review* in 2001. In the article, she contrasts causal and effectual reasoning and proposes that effectuation's "dynamic decision environment involving multiple interacting decision makers" is more of a natural catalyst for new firms than the "static, independent decision making" causation model.

In 2001, Sarasvathy received the William H. Newman Award from the Academy of Management for a paper based on the expert entrepreneur study. So far, she has published six papers related to effectuation with a number of others under review.

Noting that her research revealed the decision-making processes of expert entrepreneurs as "something that they had learned and something that can be taught," Sarasvathy has used the findings to inform her teaching, the effect she intended at the start. She has reworked the entrepreneurship courses she teaches to include exercises in effectual problem solving and case studies of companies whose founders employed this rationale. In addition, the courses explore the use of both causal and effectual problem solving in new ventures, since the former process appears to become more significant in managing the company as it matures. Sarasvathy cautions that while effectual reasoning was the preferred decisionmaking process of the expert entrepreneurs in her study, it should not be viewed as the one "correct" method of entrepreneurial thinking or as a guarantee of business success. Future studies linking effectuation to performance are required. Currently, Sarasvathy is broadening her inquiry of the use of effectuation in organizations, and working with doctoral students interested in the area at the Smith School of Business and other business schools.

For further information, visit www.effectuation.org or contact Sarasvathy at saras@rhsmith.umd.edu.

KNOWLEDGE FLOWS: LEARNING TO SHARE

Research by Anil K. Gupta

LEVERAGING AND MOBILIZING KNOWLEDGE ACROSS ORGANIZATIONAL UNITS CAN CREATE SIGNIFICANT ECONOMIC VALUE. "YET, GIVEN POWER STRUGGLES, POLITICS, BUREAUCRACY, AND OTHER ORGANIZATIONAL PATHOLOGIES, IN MOST FIRMS, THE ACTUAL REALIZATION OF KNOWLEDGE SHARING REMAINS WELL BELOW POTENTIAL," STATES SMITH SCHOOL PROFESSOR, ANIL K. GUPTA.

Since earning his Ph.D. from Harvard more than 20 years ago, Gupta, the Ralph J.Tyser Professor of Strategy and Organization and chair of the management and organization department, has focused virtually all of his research on coordination and control issues pertaining to business units and subsidiaries within diversified and/or multinational corporations. So, his interest in delving deeply into the mobilization of knowledge across organizational units is not surprising.

"Of all of the various resources that a firm possesses, knowledge is perhaps the most important driver of value creation," says Gupta. "Yet, most firms can be characterized more accurately as portfolios of knowledge islands rather than as integrated knowledge networks."

Gupta and a number of others in academia have been intensively analyzing knowledge sharing for more than a decade. Gupta's papers in this area date back to 1991 and have been published in various outlets including Strategic Management Journal, Academy of Management Review, and Sloan Management Review. His first paper on this subject was the winner of the 1991 Glueck Best Paper Prize in Business Policy and Strategy from the Academy of Management. Others are regarded as "classic works" and are often cited by other scholars.

In his paper, "Knowledge Flows Within Multinational Corporations," published in Strategic Management Journal in 2000, Gupta developed and empirically tested a comprehensive framework for understanding the factors that constrain or promote knowledge sharing within multi-unit organizations. Gupta identified three main components of the knowledge sharing process: discovery, motivation, and transfer.

Discovery refers to the process whereby potential sources and targets of relevant knowledge discover each other, which is often a challenge in large, geographically dispersed corporations.

Motivation refers to the process whereby both sides of a potential knowledgesharing dyad have intrinsic or extrinsic incentives to exchange the relevant knowledge. Gupta found that units with superior knowledge that might benefit peer units often have strong incentives to hoard their knowledge so that they can preserve and enjoy the intra-firm monopoly advantages that superior knowledge may bring. On the other hand, many potential beneficiaries of incoming knowledge often suffer from ego defense mechanisms such as the "not-invented-here" syndrome.

Transfer, the third factor, refers to the process mechanisms through which relevant knowledge actually gets transferred from a source to a target. While codified knowledge—such as numbers, formulas, computer code, and blueprints —is often easily transferred using technology, Gupta found that much of the most valuable know-how is often tacit and can only be transferred through a combination of direct observation and hands-on training under the guidance of those with superior know-how.

Gupta's most recent research in the area of knowledge sharing, conducted with Susan Feinberg, assistant professor of logistics, business and public policy at the Smith School, is to be published in the Strategic Management Journal in 2004. Their study looked at the extent to which U.S. multinational companies, when deciding where to locate new research and development (R&D) facilities in foreign countries, consider the potential to capture "knowledge spillovers" from competitors with R&D facilities in the same host countries.

"When firms are deciding where to put a new R&D center, of course they look at the local workforce and other so-called host country factor endowments," says Gupta. "But we found persuasive evidence that companies are also aware of the possible knowledge spillovers they can capture from competitors, and they factor in this possibility when deciding where to locate new R&D facilities."

This "inter-firm" type of knowledge sharing can happen when employees of one firm leave their positions to work for competitors. Workers may also share knowledge with competitors merely because they are friends and they talk with each other. Gupta's latest research does not examine what impact inter-firm knowledge spillovers actually have on firm performance, but it has laid the groundwork for a possible study in the future.

"Research in this area will continue because it is a very fascinating and also a very complex topic," says Gupta. "It is a rich field covering not just intra-firm but also inter-firm knowledge sharing."

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