



The

PROSPECTUS

Building Bridges Through Partnerships

MAY 2001 NEWSLETTER OF THE APICS EDUCATIONAL AND RESEARCH FOUNDATION, INC.

Collaboration Between the Academician and the Practitioner:

How Research Is Being Applied to Integrated Resource Management

The Educational and Research Foundation Executive Director, Michael Lythgoe, interviewed Kevin McCormack, Ph.D., a partner in DRK Research and Consulting LLC, a research firm based in Birmingham, Alabama. McCormack is the co-author of *Business Process Orientation: Gaining the E-Business Competitive Advantage*.

ML: You describe your experiences as spending time in both camps—the world of the academician and the world of the practitioner. Please elaborate.

Kevin McCormack: I have had the rare opportunity (and energy) to operate in both worlds and in several countries and cultures. I have always worked full time while in school full time and always worked in an area that I was studying. I received a degree from Purdue in chemistry and then in engineering while working in the chemical industry, an MBA while managing in the food and consumer products industry, and a doctorate while building and leading IT/business consulting groups. During this period, I also taught working students at the university level in operations and information systems.

These opportunities have given me the theoretical and applied aspects and the responsibility for the outcomes of my research and application efforts. I was always able to learn the theory in the context of “how do I put this to use?” This has been a university of common sense grounded by solid theory. Having to be responsible to customers, shareholders, and employees has also helped me really understand all the aspects of business and what it takes to win.

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I have always been looking for guidance on strategies and tactics that really make a difference. This has directed my best-practice research agenda for the last eight years. Through observation—and participation—I document and describe the best practices being attempted in the business world, use the theory to understand the levers that make them work or fail, and use investigative statistics to sort out the practices that make a difference.

ML: In light of your long association with APICS and your more recent work with the Supply-Chain Council (SCC), how would you like to see more cooperation? As you know, the Educational and Research Foundation has jointly funded six studies with the SCC.

Kevin McCormack: Each association has its own perspective. The SCC has a strong “process orientation” and has developed the SCOR (Supply Chain Operations Reference) model to help practitioners build a process view of their supply chain. This provides a context or a way of looking at the supply chain that opens up new ways of operating. The SCOR model also helps people understand the “systems view” of the supply chain and its interdependencies.



Kevin McCormack

APICS provides an excellent best-practice perspective. It provides a toolbox of strategies and tactics available for practitioners to use in many situations. If you combine the best of both, you can use the SCOR model to build a process view (or structure) for the best practices in APICS. This provides a context and systems view of the practices that helps in applying them. It also is a natural way of organizing these practices that helps people quickly put them into their supply chain context. The SCOR system perspective also helps you understand the dependencies that may not be clear in some of the APICS best practices. Merging these two perspectives should be a priority for both associations.

ML: You have developed a number of benchmarking techniques and surveyed more than 100 companies to test your rigorous models. I understand you are working with Siemens and Intel and have recruited Archie Lockamy, Ph.D., CFPIM, past vice president of the E&R Foundation, now teaching at Samford, to join your research team. You have said that external ties are your new focus: the relationships between companies that have fixed the back office and now must wrestle with links to partners and other company ties to make their profits. Can you describe your new focus on B2B issues? What is the next adventure for your investigations to help the practitioners, such as members of APICS and the SCC?

Kevin McCormack: During the past 20 years, many of us have worked on improving the interactions among functions within our companies. Much of TQM and the whole reengineering craze was focused in this area. By taking a “process focus,” using information technology, and employing integrating strategies to improve these interactions, a company could improve its performance by 50 percent or more. Take this up a bit and look at a supply chain as an organization composed of functions represented by companies.

A supply chain can have thousands of separate companies working to provide the product to the end consumer. For example, the aerospace supply chain has more than 20,000 individual companies providing value in some way toward that Airbus we fly. If you map the interactions (and friction) among all of

COLLABORATION BETWEEN THE ACADEMICIAN AND THE PRACTITIONER *from page 1*

The APICS Scholars Program

This program is a continuation of E&R initiatives focusing on college students and reflects APICS' commitment to the professional growth and development of students entering the resource management profession. Students selected to participate in the program will attend the APICS International Conference and Exposition at APICS' expense to serve as educational session aides throughout the conference. They will have the opportunity to attend presentations and meet with speakers, network with conference attendees, and visit the exposition.

APICS chapters (student or parent), APICS regions, and individual members are invited to participate in the funding of the APICS Scholars Program. Chapters may designate an APICS Scholar for a donation of \$1,000. For additional information, contact Florence Anderson at foundation@apicshq.org or by phone at (800) 444-APICS (2742) or (703)-354-8851.

them, you see that 95 percent of the efforts are being spent spanning the "space" between these companies and overcoming the friction in this space. I call this the "e-space." Can you imagine what would happen if we could improve this by just 10 percent? That's why B2B is so exciting.

So, our agenda is to identify practical, realistic action that practitioners can take tomorrow in this e-space to begin chipping away at this task. Through literature reviews, focus groups, and interviews with practitioners, we have worked for the past year to identify and define the eight B2B best-practices groupings—ones that seem to be making a difference—and we have started to break them into their best-practice elements. For example, supply chain visibility, one of the eight best-practices groupings, is necessary not just in one company but throughout the entire set of partners involved in the product chain.

The ways that specific elements of supply chain visibility are deployed provide the competitive advantage for the specific group of partners. In 2001, we will statistically investigate how these elements are deployed and identify which ones make a difference and how much of a difference. The other best practice groupings that we will be investigating and testing are

- B2B available-to-promise or capable-to-promise
- supply chain event management
- supply chain partnership management
- supply chain configuration and rapid reconfiguration
- supply chain outsourcing management
- supply chain collaborative planning and forecasting
- supply chain auto-replenishment.

ML: What are the most pressing challenges you see facing the practitioners managing supply chains these days? Managing the flow of information? Available-to-promise issues? The downstream customer satisfaction metrics? Harnessing technology for operations gain to enable profits?

Kevin McCormack: The most pressing challenges for supply chain practitioners today are "relationships and reality."

By relationships I mean that supply chain management is a complex effort to manage interdependencies, agreements, and commitments. These issues are between people, not abstractions such as companies. So, as the supply chain extends more and more each day outside of company boundaries (and often global/cultural boundaries) relationships will make it work or not. Making and keeping commitments, even in tough times, seem to be the competitive advantages that are hard to duplicate. Shoving problems back onto your suppliers does not build a long-term win-win partner relationship.

By reality I mean not getting caught in the "silver bullet" hype. There are no easy answers to supply chain management in a B2B world. Competitive advantages are built by hard work over time that involves investments in relationships, people, and technology. I first had hoped we had learned from the computer-integrated manufacturing (CIM) hype, then I hoped we had learned from the ERP hype, and now I hope we have learned from the Internet/B2B exchange hype. But easy answers are attractive—that's what I mean by reality.

Because I began as a laborer in a factory and worked my way through most of the jobs in a supply chain (or at least had to be involved deeply with them), I have a clear view of the complexity involved as well as the real challenges. All the rest is just great fun.

ML: Kevin, a question we received recently from a clothing manufacturer was this: What are the core competencies for individuals working within the supply chain? Do you have any recommendations in this area?

Kevin McCormack: The individuals in the supply chain today and tomorrow face a real challenge. Collaborative decision making and actions are key competitive advantages of a supply chain that consists of multiple companies. Making and maintaining a series of agreements among these partners can be massively complex. Technology today can enable all of these partners to connect and interact—but the relationship factors (belief in common goals, trust, sharing of information, and maintaining a win-win situation) will be enabled by the SCM leaders in the partner companies. The competencies needed from these leaders involve the ability to lead (and sometimes be a team member) in this environment. Negotiation, communication, and group participation skills are critical.

ML: Thanks for such far-reaching replies, Kevin. We have much to reflect on at APICS as we consider the implications of your research findings. The E&R Foundation must also factor in some of your responses as we look to fund additional research. The issue of collaboration between the E&R Foundation and the Supply-Chain Council for additional projects is also something we will address. And we are certainly looking forward to hearing you speak at the July 27-29 Summer Academic/Practitioner Workshop in Chicago.

E&R Foundation
8th Annual Summer Academic/Practitioner Workshop
 Cosponsored by J.D. Edwards
July 27-29, 2001
Chicago, Illinois
 E-mail foundation@apicshq.org to request a brochure

View Bridge

from the

Michael H. Lythgoe, MFA

Currently, APICS is emphasizing the value of membership in the society. One member and volunteer leader serving on the Integrated Enterprise Management Committee of the Curricula and Certification Council, **Al Bukey, CFPIM, CIRM**, addressed how APICS and his CIRM designation helped him.

"My APICS background is the main reason I was considered for my new job. Celestica hired me to develop and deploy supply chain programs at various facilities across North America."

I asked Al about corporate perspectives on training.

"Most often I hear the following comments after delivering an APICS course at a company: 'The instructor brought many of us together and demonstrated how and why we should work together as a team,' or, 'this was a course in which we learned how to speak a common language,' or 'this course taught us not only the need for education, but also that the experience of the instructor is a vital element enabling us to succeed.'"

Al is expanding training and CIRM throughout Celestica and introducing the new APICS online Advanced Supply Chain Management program. The Fundamentals program is now mandated for all planners, buyers, expeditors, and schedulers as well as warehousing and shipping and receiving personnel. The CPIM courses are voluntary—but education credit is given to all successful candidates. All senior planners, buyers, schedulers, supply chain managers, and logisticians are encouraged to take CIRM courses. Celestica realizes that all management levels will gain a better understanding of cross-functional and process orientations within the business enterprise.

Al concluded, "Education must be viewed as a long-term investment—not a project with a payback value of a few years. Most educational investment has far-reaching impacts within an organization, and those impacts are almost always positive and long lasting. Because education naturally improves the quality of life, it also attracts quality people. It is this cycle that corporations must invest in—not merely the education itself."

Another E&R researcher, **Dan Guide, Ph.D., CPIM**, a professor at Duquesne University, wrote

"When I sit down with a group of managers to discuss a supply chain problem, I normally find engineers for product development and design, but the other members have varied backgrounds. The focus seems to be on getting people who are good problem solvers and introducing them to the supply chain view. The most valued people are creative problem solvers who typically have a good undergraduate degree. Corporate education tends to focus on specific areas that are well developed so employees can obtain some specific tools. When I deal with metrics, customer satisfaction, or available-to-promise, the issue comes down to profitability.

We spend a lot of time on the economics of a decision. Unless we can show that an activity adds sufficient value, there is no incentive for a company to be interested. Earlier this year, we developed a model to show the cost-benefit right up front. This value-added consideration is also true with e-commerce. Companies are forging partnerships rather than attempting to accomplish all the tasks themselves. For example, one large firm I've worked with plans to stop manufacturing to concentrate on design and sales. The company is retaining control of the integrated supply chain and is interested in the best way to optimize profits for the entire supply chain. We have also seen increasing interest in third-party providers for logistics (forward and reverse) and remanufacturing."

Dan says his students are turning to supply chain groups that interact with NAPM, CLM, and APICS. This interest highlights the value to APICS of programs that strengthen ties to students and faculty. So, make your plans now to participate in the E&R academic program before the 2001 APICS International Conference and Exposition in San Antonio this October, and the Summer Academic/Practitioner Workshop in Chicago featuring Rockwell Collins on its Ariba Indirect Material pilot, the SAP Go Live of the Government Systems Operations, and the California/Mexicali Operations ERP.

And get ready to hit the links to benefit E&R at our golf tournament in San Antonio. Perhaps your company could join SOFTWARE.com and its CEO, **Mark Talba**, in sponsoring a hole. Mark recently said, "e-Markets and exchanges are amazingly good at making connections. They have stumbled because they don't provide a viable way to complete transactions....Although transaction-enabling technologies have been available for years,... the exchanges are only now beginning to notice them. Corporate commerce initiatives are finally demanding real-time integration of ERP systems and realistic return on investment....APICS and the E&R Foundation can help by highlighting solutions that effectively leverage ERP for e-commerce and by documenting real-world operational and financial advantages."

It has been my pleasure to work with the E&R Foundation to "bridge gaps" in research and bring APICS practitioners together with our faculty and grant winners. This is my last View from the (E&R) Bridge. I changed castles this month—moving to the Smithsonian Institution to coordinate educational and cultural programs. To those of you who have supported the work of the E&R Foundation and me personally, "Thanks, Thanks, and Ever Thanks."

— ML

Research Papers from APICS

The following research papers and more are available through APICS Customer Service:

Managing Material and Information Flows in Global Supply Chains: A Bilateral Study

Amy Z. Zeng, Ph.D., Christian Rossetti, and Kenneth J. Mair II
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Supply Chain Management Practices in the United States and Europe

Keah-Choon Tan, Ph.D., CPIM, C.P.M., and Joel D. Wisner, Ph.D., C.P.M., CTL
(stock #07029)

Supply Chain Management Incorporating Reverse Logistics

V. Daniel R. Guide Jr., Ph.D., CPIM, and Vaidy Jayaraman, Ph.D.
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Joseph Sarkis, Ph.D., CPIM, and R.P. Sundarraj, Ph.D.
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R. Lawrence Laforge, Ph.D., CFPIM, and Christopher W. Craighead, Ph.D.
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Supply Chain Management: Balancing Supply Chain with Customer Demand

Rhonda Lummus, CPIM, CIRM, and Karen L. Alber, CFPIM
(stock #07010)

Supply Chain Management: Principles & Techniques for the Practitioner

Karen L. Alber, CFPIM, and William T. Walker, CFPIM, CIRM
(stock #07015)

Call APICS Customer Service at (800) 444-APICS (2742) or (703) 354-8851 to request a research paper.

Farewell to Mike

Farewell and best wishes to Mike Lythgoe, executive director of the APICS Educational and Research Foundation. Mike has been with us for more than eight years during which he led us from providing a small number of grants each year to research partnerships with the Marketing Science Institute, Supply-Chain Council, and Institute of Managerial Accounting. Under Mike's leadership, we have funded numerous research grants to academicians to study supply chains, performance measurement, marketing, operations and information systems interfaces, enterprise resources planning, and others. Mike was instrumental in establishing the George W. and Marion Plossl Doctoral Dissertation Competition to fund research in integrated resource management by Ph.D. students. He led our summer and international conference academic programs and the Donald W. Fogarty International Student Paper Competition. The E&R Foundation will miss his leadership and enthusiasm, and we wish Mike the best of luck in his new career with the Smithsonian.

– Jim Cox

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