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Upcoming Conferences

Twentieth Annual Conference of POMS May 1–4, 2009, Orlando, FL USA

See http://poms.org/



Cheryl Gaimon

POMS President

College of Management

Georgia Institute of Technology

In preparing my first message as President of the premier academic society for Production and Operations Management I am both deeply honored at having been elected and humbled by the

responsibility.

Like so many of you, I have made a substantial personal investment in the Production and Operations Management Society over the years and found it to be a very rewarding experience. Previously, I participated in the POMS board as a VP as well as a Board Member. Along with you, I have attended and presented research at many POMS conferences and have participated in special programs such as the doctoral student consortium. On the dimensions of research, like you I have served as a reviewer, hold an editorial position, and have published in *Production and Operations Management*. Reflecting on these activities, I find that as I became more involved in POMS my enthusiasm for the society grew. I encourage you to similarly participate in our vibrant society and I am confident that you will find the experience personally and professionally rewarding.

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Jatinder (Jeet) N. D. Gupta Outgoing POMS President

The University of Alabama in Huntsville

I am deeply humbled and honored to have served as POMS President last year, following the excellent performance of its founder and all previous leaders. It has been an exciting and thrilling experience to participate as POMS celebrated its

18 years of existence to enter into its phase of maturity. Clearly, over these 18 years, we have built a strong membership base and POMS has become a truly global society with a well-established and recognized identity and has reached out to an ever-expanding set of POM professional communities.

It has been an invigorating experience to have had an opportunity to lead a team of committed individuals to drive POMS to its next level of evolution: a premier society which is truly global in spirit and action with an overarching impact on the future developments in our profession. This has been possible only because of the dedicated service of our past and present board members and because of the active participation of our members. In fact, collectively, we have made our soci-

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Open position: representative for *POM* Journal.

Open position: representative for *POMS* conferences.

Open position: POMS Chapter representative(s) for Latin America Caribbean, Australasia, and Africa.

Please contact the Editor or the appropriate College President if interested in filling one of the open positions.

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to serve as a medium of communication and
to provide a forum for dialogue among its members.

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PRESIDENT'S MESSAGE (CONTINUED)

(Continued from page 1)

While my past activities in POMS provided me with a good understanding of the society, to deepen my knowledge and in preparation for my term as President, I chaired a committee that conducted one survey of members and a second survey of nonmembers. (I would like to offer special thanks to a few of the committee members whose input was particularly helpful: Carrie Crystal, Dan Guide, Sushil Gupta, Gulru Ozkan, Eve Rosenzweig, and Chris Voss. Also, I would like to thank the large number of respondents.) The purpose of the surveys was twofold: to understand how to better serve current members and to attract new members.

As a profile of the respondents for the member survey, 32% were full professors, 22% were associate professors, 23% were assistant professors, and 10% were Ph.D. student members. 54%, 45%, and 28% of the respondents were also members of INFORMS, DSI, and EurOMA, respectively.

When asked to name the most important services POMS offers to its members, three responses stood out: 79% said the journal; 73% said the conference; and 51% said professional contacts (which of course relates to the conference). In the remainder of this message, I will highlight plans aimed at enhancing these three member needs.

The POM Journal

Respondents of the member survey said that three elements of the *POM* journal are most important: (i) practical relevance combined with academic rigor, (ii) broad content in both topics and methods, and (iii) attention to emerging issues.

As evidence that *POM* is meeting member priorities, one needs only observe the wide range of interests of authors, reviewers, senior editors, and department editors. Interestingly, this broad participation comes from POMS members as well as non-members. According to the member survey, 28% have served in an editorial capacity and 21% have submitted papers for review. Moreover, 42% of the non-member respondents have served in an editorial capacity and 43% have submitted papers for review. As evidence that the journal is responsive to emerging issues, one needs only observe the many special topic issues that have been published over the years including closed-loop supply chains, new product development, e-auctions for procurement, and management of technology. Calls for papers have been announced for future special issues on (i) healthcare operations, (ii) emerging markets, and (iii) operations in financial services.

Reflecting on the above, we all owe a debt of gratitude to Kal Singhal, Editor-in-Chief, for his leadership and wisdom that have culminated in establishing *POM* as the premier journal devoted to research in Operations Management.

Conferences/ Colleges/ Chapters

The member and non-member surveys also provide insights concerning the POMS conference. With respect to members, 63% of the respondents attend the conference, 60% are speakers/panelists/session chairs, and 10% participate in special programs. Moreover, 52% of the non-member respondents report that they too attend the POMS conferences. Clearly, something very important is happening at the POMS conferences to attract so many

members and non-members.

Jim Gilbert, VP-Meetings, is already planning the annual meeting in spring 2009 which will take place in Orlando, Florida. If you know Jim, you know that the conference will be a terrific success. Overall, the survey respondents were very satisfied with the format and quality of the annual conferences. However, many did express frustration with the "no-shows" (i.e., persons who are scheduled for a presentation, pay the registration dues, but do not attend the meeting). Jim is working with a committee to consider how to address this problem, which of course is widespread in academic communities. If you have any suggestions on this matter or have other thoughts on ways to improve the annual conference experience, please feel free to contact Jim or me.

The survey results highlighted the substantial value of conferences run by the POMS Colleges. Survey respondents said that industry participation is a key benefit of attending college conferences. Currently we have the following colleges: Supply Chain Management, Service Operations, Product Innovation and Technology Management, Sustainable Operations, Healthcare in OM, and Human Behavior in OM. The last two colleges were newly created in 2008. In support of the importance you placed on college activities, the board approved that each POMS member has one free membership in a college of their choice. Uday Apte, VP-Colleges, is considering ways that colleges can improve the services they provide to members as well as ways to enhance the interface between POMS and its colleges. If you have any suggestions on these points, please feel free to contact Uday or me. We welcome all input.

Beyond colleges, we are exploring ways in which POMS chapters can better serve members and ways that POMS can better serve chapters. If you have any suggestions, please contact me or: Chung-Yee Lee, VP-Austrasia; Alfonso Fleury, VP Latin America and Caribbean; Normal Faull, VP-EurAfrica; and Jeet Gupta, India. Again, we welcome your input.

Professional Contacts

As indicated earlier, one of the three most important services POMS provides to its members is facilitation of professional contacts. Along these lines, several initiatives are underway.

POMS Searchable Membership Database: I am very excited to inform you that POMS will be launching a new website containing a list of all members, their employers' names and addresses, and areas of interest. While anyone around the world will have on-line access to the database, only POMS members will be included in its lists. The database will be sorted alphabetically by member name, university, and areas of interest. Demonstrating their commitment to POMS, I am proud to say that the website has been created by and will be managed in the next years by the College of Management at the Georgia Institute of Technology.

In my view, this database is the repository of worldwide academic leaders in Operations Management. The database will serve a key service to the OM community by facilitating professional contacts and identifying persons who work in various areas of research. The latter will be particularly useful to Ph.D. students just embarking on their research careers or to faculty beginning research on a new topic.

VP-Communications: At the May 2008 meeting, the POMS board ap-

FROM THE EDITOR



Glen Schmidt

David Eccles School of Business, U. of Utah glen.schmidt@business.utah.edu

Does Anybody (Everybody) Know What We Do?

I recently visited a patient in intensive care. She had been in a coma for four days on a ventilator, but was now beginning to show some response. Unfortunately, she had also developed pneumonia and contracted an infection resistant to antibiotics.

While medical technology had remarkably snatched her from the grasp of death with its life-saving machinery, it had simultaneously failed to prevent, and possibly even helped introduce, a new set of complications that were equally life threatening. Could improved operations practices have averted these complications?

Quoting from Gawande (2007), "The tasks of medical science fall into three buckets. One is understanding disease biology. One is finding effective therapies. And one is insuring those therapies are delivered effectively. That third bucket has been almost totally ignored by research funders, government, and academia."

But has this third bucket been totally ignored? Isn't this exactly what Operations Management is all about? Aren't we focused on determining how to best manage a set of processes, whether it is the set of processes that transforms silicon into microprocessors, or the set of processes that transforms fabric into a shirt, or the set of processes that transforms a sick person into a well one? We don't try to understand disease biology (or the physics of microprocessors), so we don't focus on the first bucket, and we don't try to find more effective medical therapies (or find more effective etching techniques in making microprocessors), so we don't address the second bucket, but aren't we as Operations professionals focused on finding ways to insure that any given set of process steps is performed correctly and cost-effectively?

Gawande is a physician and MacArthur fellow who writes about his experiences. His two books are among my favorites, and offer great examples of Operations problems and principles; be sure to read the book *Complications: A Surgeon's Notes on an Imperfect Science* and the book *Better: A Surgeon's Notes on Performance*. Continuing to quote from Gawande (2007), "This is the reality of intensive care: at any point, we are as apt to harm as we are to heal. Line infections are so common that they are considered a routine complication....All in all, about half of I.C.U. patients end up experiencing a serious complication, and, once a complication occurs, the chances of survival drop sharply...Here, then, is the puzzle of I.C.U. care: you have a desperately sick patient, and in order to have a chance of saving him you have to make sure that a hundred and seventy-eight daily tasks are done right..."

Making a microprocessor similarly involves hundreds of steps that must be done right to create the millions of transistors that are contained in the chip. And through effective operations practices, among other things, the electronics industry reduces the cost of a transistor by about 30% every year. While it may not be fair to compare electronics with electorates, it is our responsibility to make industries such as the medical field equally aware of how the field of Operations can improve the quality of their product, while

(Continued from page 3)

proved a new position: VP-Communications. The VP position will provide a critical service to the OM profession by better linking the academic community with OM practice. Since this is a new position, the precise role is evolving. However, I can tell you how I described the position when I presented it to the board for approval this past May.

We see this as a two-way exchange. First, the VP-Communications will "translate" the results of selected OM research papers to demonstrate the value and impact to OM practice. The "translations" will appear in a new column on the POMS website. Beyond providing value to practicing managers, this "translation" will make it easier for academic faculty to bring research into the classroom.

Second, the VP-Communications will create a repository of citations to journals and periodicals such as *Business Week*, *Fortune*, and the *Wall Street Journal* that demonstrate the impact OM has on firm performance. Again, the material will appear on the POMS website. The repository will help OM faculty in several ways including serving as a source of information for teaching. Moreover, evidence of the impact of OM on firm performance can be used by faculty to ensure OM courses remain in the curriculum, and to help OM faculty meeting with deans to obtain new faculty positions.

I am delighted to report that Christian Terwiesch has agreed to serve as the first VP-Communications. If you have any ideas or suggestions for Christian or me, please contact us.

Other Ongoing Committees

There are two vital initiatives that will be continuing from last year. The Strategic Planning Committee (formerly headed by Hau Lee and currently led by Jeet Gupta) and the Globalization Committee (being led by Christopher Tang for a second year) are ongoing and will help direct and shape the future of the society. In addition, Ed Anderson in his role as VP-Publications is committed to improving the POMS website format and structure. Nagesh Murthy in his role as VP-Education is embarking on an effort to identify "hot" OM academic programs and to understand what makes them "hot". Dan Guide as VP-Members will be exploring other services POMS can provide to members. Lastly, Art Hill as VP-Finance will be considering ways POMS can improve the management of its financial resources. Again, if you have any thoughts on these issues, please contact me or the responsible VP indicated.

In closing, I would like to thank Hau Lee, Jeet Gupta, Sushil Gupta, and Marty Star for their advice during the past year when I served as President-Elect. I know that their continued support, the commitment of the POMS board, and the participation of POMS members will enable us to realize our goals. I would like to stress that your involvement is essential to ensure that these initiatives are successful so please volunteer and contact us with your thoughts, concerns, and suggestions. Lastly, let me say that I look forward to the coming year as we will work together to enhance the POMS experience.

Cheryl Gaimon, POMS President



OUTGOING PRESIDENT'S MESSAGE (CONTINUED)

ety what it is today, and assure that it will remain responsive to our needs and serve our profession by being a leader now and in the future.

In this communication as the POMS Outgoing President, I would like to (1) describe our society's premier status in POM, (2) delineate the accomplishments during the last year; (3) suggest some possible future directions for POM research, teaching and community service areas; (4) invite each of us to participate in ways that will serve our individual, personal and professional needs; and (5) offer a vote of thanks.

POMS is the Premier Society for POM

In my last communication, I stated that POMS is alive and well and has reached the age of maturity. It has developed an increasing sense of purpose through its achievements. I am happy to report now that POMS is the premier society for POM academicians and professionals. It is the most comprehensive professional society in the Production and Operations Management field. Its flagship journal, Production and Operations Management, is now regarded as the top journal in the field and is listed in Business Week as well as in the list of top journals by the University of Texas at Dallas. This was clearly evident from POMS' last annual conference in La Jolla, CA in May 2008. At that conference, the theme of POMS being a premier society was brought home to me by many POMS members and conference participants who were clearly enthusiastic about their participation in POMS and excited to be involved in the vibrant society with a well-defined purpose and future plans.

As I shared with you earlier, an interesting aspect of a POMS conference is the melding of the matured and young professionals. At these conferences, you can interact with many of our previous presidents, board members, leaders, and founding members. At the La Jolla conference, this was quite evident by the observations in several special sessions including the emerging scholars program which was seen as a mechanism to help our younger members learn the ropes to prosper and grow in their careers. In addition, for the first time in POMS, the La Jolla conference included special seminars for the POM practitioners to help them be effective leaders of their organizations by enhancing their organization's effectiveness and productivity. These seminars were developed and lead by successful industry leaders and were well received by the participants.

During the year, I had opportunity to travel to different parts of the world and interact with POM professionals from around the world. In all these interactions in various countries such as Brazil, China, Europe, India, and Taiwan, it is clear that POMS is considered the premier society in POM. Thus, in our vision of a premier global POM society, we have succeeded.

Accomplishments during Last Year

During the year ending in May 2008, POMS accomplished several significant milestones and created an environment for its further growth and outreach. Some of these can be summarized as follows:

Global Expansion: POMS expanded its global thinking and outreach by dedicating its activities to create four POMS Chapters, in Latin America Caribbean, China, India and Taiwan. In addition, we made progress in establishing possible chapters in Japan and the United Arab Emirates. Further, a specially appointed Globalization Committee completed its deliberations and submitted its report which

now being implemented.

Reaching out to Emerging Economies: To keep our spirit of global society and to serve the world, we have emphasized our outreach to emerging economies such as Latin America, South Africa and Asia. To enable young POM researchers from these emerging regions, POMS created an Emerging Scholars program whereby limited financial support is provided to excellent young researchers to participate in our annual conference. As a result, three young researchers from these three regions participated in our La Jolla conference and were warmly received by various POMS members. These young researchers also shared the positive attitude they have developed about POMS and its members and expressed their desire to continue their participation in our society. Clearly, such actions enable us to create a mutually beneficial learning environment. To further this goal, we have also established POMS distinguished lecturer series wherein a well reputed POMS scholar and though leader is selected to deliver a keynote speech at an international POMS conference and interact with professionals at that conference to further POM developments in that region. I am happy to report that these distinguished speakers have been very well received by POM researchers from emerging economies.

Enhancing POM Diversity and Outreach: In order to help include many more aspects of POM practice, teaching, and research, POMS has been engaged in a process of enhancing its diversity and outreach. This has enabled POMS to create specific focus areas to provide much needed service to several existing and emerging functional areas in POM. In order to accomplish this, we completed the formation of two new colleges and created a new Vice-President for Colleges position on POMS board. The College of Human Behavior in Operations Management deals with the soft side of POM and attempts to show that behavioral considerations are as important in POM as are the analytical models. This college plans to organize a track in POMS next year's conference in Orlando, Florida. The College of Healthcare Operations Management already organized a track at POMS' La Jolla meeting last May and is planning to expand its activities during this year.

Industry Outreach: We expanded out commitment to serve the POM practitioner and to bridge the divide between POM academia and practice by creating a new Vice-President for Industry position on the POMS board. The person in this position is a successful POM practitioner who is working hard to create special programs to serve our profession. In fact, it was through his leadership that we were able to organize the special seminars for POM practitioners at the La Jolla conference last May. These activities have shown an increasing need for our Operations Advantage Group to work closely with VP for Industry to identify and share best POM practices and bridge the gap between POM academia and practice.

Enhancing service to POMS Members: In order to serve our profession and our members, with the excellent leadership and commitment of then President-Elect Cheryl Gaimon we surveyed POMS members (current and potential). Results helped establish the value propositions about POMS contributions to our professions and our members. This has also served as basis for developing POMS agenda for the coming year as discussed by Cheryl Gaimon in her Presidential message.

Strategic Planning: In order to benefit from the maturing of POMS, we embarked on creating a strategic planning process within POMS to ascertain our future directions and to ensure the continuity of our

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OUTGOING PRESIDENT'S MESSAGE (CONTINUED)

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purpose and continual renewal. During the last year, the strategic planning committee completed its task of delineating the process to be used for such purposes. Now, this committee will work on creating specific directions for POMS to pursue and identify innovative and beneficial future avenues for POMS to pursue.

POMS Executive Committee: To streamline the work of the POMS Board and to become effective and efficient in decision making and serving our members better, we completed the formation of a POMS Executive Committee. The purpose of this committee is to relieve the POMS Board members from most operational decisions and to identify the critical issues that deserve Board's attention. I am happy to report that this committee is functioning quite well and this initiative has produced several positive results.

Possible Directions for POM Profession

While the POMS Strategic Planning Committee is charged with suggesting future direction for POMS, I would like to briefly share my vision for our profession and its contribution to the world. Since its inception, POM academicians and practitioners have participated in solving POM and related problems at the firm and industry level. During the past century and the beginning of this century, we can be proud of our accomplishments to enhance industrial productivity, quality of life, and working conditions in almost all industry sectors. In doing so, we have contributed at various levels within a firm, from the shop floor to the executive board. However, it is time for us to widen the scope of the clientele we serve. In the emerging world, several other problem areas deserve our attention and our expertise. I suggest that we widen our horizons to include society as a unit requiring the solution of problems utilizing our expertise and collective abilities. For example, what does it take to manage natural disasters like Hurricanes Katrina? What can we contribute to efforts in saving lives and minimizing disruptions? How can we contribute to mitigate the spread of an epidemic? How can we avoid the upcoming world crisis in electric power availability? How can we make our governments be more responsive and efficient? Perhaps it is time for us to initiate debate as to what our role in the emerging world is. Perhaps some sessions at future POMS conferences can be used to develop such themes. I suggest that efforts in this direction are worthy of consideration.

An invitation to participate in POMS

From the brief description of various activities and accomplishments from the last year, it is clear that while we have become a premier POM society and have accomplished a lot, much work is still to be done to maintain and enhance contributions that POMS can make to its members and profession. Therefore, I repeat my earlier call for participation. Successful completion of POMS' activities depends on the fullest extent of active participation in carrying out these works. POMS is our society. It was created by us—for us, and hence, it is up to us to enable it to contribute to our professional growth and career enhancements.

In this regard, I once again share my own experience of participating in professional and academic societies. Over the 40 plus years of my professional and academic career, I have participated and volunteered for various activities and offices (elected and appointed) in several associations like POMS. Each time I have undertaken a volunteer task with various societies, I have created more value for myself than the effort I had spent in doing the task. In addition, we assure that our future is bright and full of excitement. With this experience, I invite each of our members to come and play with us in jointly completing various activities that will create value for each of us and will enhance our society and profession. There is ample variety of activities and each one of us can participate in doing whatever we like and value the most. Rest assured that the water is warm and the swim is enjoyable. Thus, this is our invitation for everyone to jump in and have a good time.

A Vote of Thanks

Earlier in this message, I stated that I have been fortunate to have highly committed, dedicated, able, and willing people around me to do whatever was needed to move POMS to the next level of its evolution. Without their support, participation, and encouragement, it would not have been possible for us to make POMS the premier society for our profession. I appreciate their support and thank them personally for the hard work they have done and still continue to do. These individuals (too many to mention by names) include all those who have served POMS in various capacities, as Presidents, board members, committee chairs and members, conference chairs, track chairs, and members of program committees, presenters, reviewers, and discussants at sessions, volunteers at various POMS' events, and members our great society and profession. To each of us, I express my heartfelt thanks and congratulate on the job well done. Keep up the good work!!!!

Jatinder (Jeet) N. D. Gupta, POMS Outgoing President

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reducing its cost. How can we, as professionals and as a professional society, do a better job of dispersing our knowledge? I believe this continues to be one of our key opportunities.

In this issue of the Chronicle you will find several articles aimed at dispersing Op's knowledge, and you will also find articles that recognize a number of our members who have been instrumental in creating our vast reserves of knowledge in addition to dispersing it. Over the coming months our new VP of Communications, Christian Terwiesch, will be looking at other ways that POMS can better serve as a forum for communicating our collective insights. We at POMS welcome your input as to how the society can better serve your needs; please contact Professor Terwiesch, President Gaimon, myself or any one of the POMS Officers (see last page).

I hope you enjoy the current issue—and I particularly look forward to your future submissions to this newsletter!

References for "From the Editor"

Gawande, Atul, "The Checklist; If something so simple can transform intensive care, what else can it do?" *The New Yorker*, Dec 10, 2007. Available at http://gawande.com/articles.htm

MARTIN K. STARR EXCELLENCE IN POM PRACTICE AWARD

Martin K. Starr Excellence in POM Practice Award

This award recognizes exceptional achievements in advancing the practice of POM, promoting the profession, having significant impact, and building a linkage between industry and academics.

The 2008 award recipient, Dr. Dino Petrarolo, Global Head of Manufacturing Development, SABMiller plc, Sandton, South Africa, has extensive and substantial experience as a practitioner of OM. He has always brought academic discipline and rigor to his practical work. He has contributed to the OM literature by writing significant papers based on lessons that he learned in practice.

Dr. Petrarolo joined South African Breweries (SAB) in 1997 where his initial job was to move the company along its World Class Manufacturing journey. Later, in 1999 he joined the team that planned, designed and implemented the newest greenfield brewery of SAB in Ibhayi, South Africa. This project constituted an application of POM knowledge. Dr. Petrarolo's focus was on the design of the management system for this innovative brewery. That system is now considered to be a global benchmark within SAB's breweries and bottling plants in different regions of the world and has received considerable attention from companies outside SABMiller in different industries.

In 2003, Dr. Petrarolo was appointed Manufacturing Development Manager responsible for developing and implementing manufacturing strategy for all SAB's breweries and soft-drink bottling plants in South Africa. He applied many things that we teach, but customized and modified them. For example, he initiated a process to reduce variability and lead times using a unique blend of lean methods, Six Sigma and the Theory of Constraints. In 2005, Dr. Petrarolo was promoted to Group Head: Manufacturing Development, responsible for the development and implementation of SABMiller's "Manufacturing Way" worldwide. In this position, he initiated a formal program to codify SABMiller's best practices accumulated over 15 years around the globe, and instituted an interesting common set of global key performance indicators (KPIs). These activities have received recognition both inside and outside of SABMIller, for example, his presentations at the Cardiff Business School.

Early in his career, he worked for Highveld Steel and Vanadium (a large steel manufacturer in South Africa), improving the inventory management system. He wrote a paper on management of spare parts inventory based on his experience, for which The Institute for Mechanical Engineering of South Africa awarded him the Ingham award for the best journal article in 1990. Highveld Steel and Vanadium Corporation continues to use the system developed by Dino Petrarolo – 18 year later.

Dr. Petrarolo received his MS and PhD in Industrial Engineering in 1997 from the University of the Witwatersrand in Johannesburg. In addition to those activities described above, Dr. Dino Petrarolo has shown outstanding dedication and exceptional quality of contribution to the POM field.

The award committee: Lee Cockerell (Chair), Lee Cockerell, LLC, Corey A. Billington, IMD, Switzerland, Sushil Gupta, Florida International U., Rafael Menda, McNeil Consumer & Specialty Pharmaceuticals, USA, and Martin K. Starr, Rollins College.

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ucts? Below find another example; that of shipping wine bottles. Look what happens when you put old wine in a new "skin"!

US wine box

VS.

Euro wine box



US wine box vs. Euro wine box

24,696 bottles 38,016 bottles (54% delta)

Fits US pallet Fits distribution system

Box designed for pallet Bottles designed for distribution

Box designed for pallet Bottles designed for distribution Pallet is frozen in size Slip sheets maximize density

Transportation: 11¢/bottle 7¢/bottle

Pallet (\$8) = 0.7¢/bottle Slip sheet (\$1.25 x 2) = 0.2¢/btl Partitions (18¢)=1.5¢/btl 2 sheets PE (12¢) = 1¢/btl Box = 1035 sq in 937.5 sq in (saves 5¢/box)

No pallets to throw away once received overseas

Savings total = 5.4¢/bottle = \$0.65/box; Cost delta = 43%

(Costs based on \$2700/ocean container—costs have roughly doubled from this number since the example was developed!).

The point here is that additional logistics functionality can often be designed directly into a component or product, and be completely blind to the consumer, yet assist in significantly reducing damage rates, improving productivity, and minimizing all logistics costs. These issues are of increasing importance with outsourcing and a focus on transportation costs.



FELLOWS OF POMS, 2008

Joseph D. Blackburn Fellow of POMS, 2008

Owen Graduate School of Management Vanderbilt University

Joseph D. Blackburn is the James A. Speyer Professor of Production Management at the Owen Graduate School of Management at Vanderbilt University. He received his B.S. in Chemical Engineering from Vanderbilt University in 1963, his M.S. in Chemical Engineering from the University of Wisconsin in 1964, and his Ph.D. in Operations Research from Stanford University, 1971.

Professor Blackburn's research and teaching in operations management focuses on time-based competition: how organizations can use faster response to customers for competitive advantage. He is the author of Time-Based Competition: The Next Battleground in American Manufacturing, and is an authority on accelerating new-product development, streamlining supply chains and reverse supply chain strategy. He was appointed Acting Dean of the Owen School in 1999 after the death of Martin Geisel and served in that capacity until Prof. Bill Christie was named Dean in July 2000. He served as Senior Associate Dean from 2005-2007 and also served as Associate Deanl from 1988-93. In 1995 Prof. Blackburn was named the Outstanding Professor in the Executive MBA Program and continues to teach in the program. Prior to coming to Owen, Blackburn was an Associate Professor of Operations Management at Boston University's School of Management. He also served as Assistant Professor of Management Science at the University of Chicago's Graduate School of Business, and as Visiting Assistant Professor of Decision Sciences at Stanford University's Graduate School of Business. He received his Ph.D in operations research from Stanford in 1971. Before moving to academia, Prof. Blackburn was a chemical engineer for Eastman Kodak in the chemical process design and economic analysis group. He is a Fellow of the Production and Operations Management Society and serves on the editorial board of the POMS Journal.

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Steven C. Graves
Fellow of POMS, 2008

Sloan School of Management

Massachusetts Institute of Technology

Stephen C. Graves is the Abraham J. Siegel

Professor of Management Science at MIT.

Professor Graves received his A.B. and M.B.A. from Dartmouth College and completed his Ph.D. in operations research from the University of Rochester. Since 1977 he has been on the faculty at MIT. He has previously served as a deputy dean at the MIT Sloan School, 1990 – 1993 and the co-director of the MIT Leaders for Manufacturing (LFM) Program (1989- 1990 and 1994 – 2001) and the System Design and Management (SDM) Program (1999 – 2001). He served a two-year term as the Chair of the MIT Faculty, 2001 – 2003. He has joint faculty appointments with both the Mechanical Engineering Department and the Engineering Systems Division at MIT.

He teaches classes in mathematical modeling and analysis, as applied to decision making in the context of manufacturing, supply chains and distribution systems. His primary research interests are in the design and planning of manufacturing systems and supply chains; recent efforts have considered supply -chain optimization, the evaluation of manufacturing flexibility and various tactical issues arising in e-retailing. He has authored over 50 papers and is the co-editor of two handbooks: Logistics of Production and Inventory and Supply Chain Management: Design, Coordination and Operation. Graves has served on several editorial boards for journals in operations management and management science, and has consulted in areas of production, logistics and distribution systems to several organizations. He has conducted industry-based research projects with numerous companies, including AT&T, IBM, Monsanto, Eastman Kodak, Amazon.com, Intel, General Motors, Boeing, Teradyne and Staples. He is a member of the Board of Advisors to Optiant, a supply chain software firm, and the chief science advisor to JDA Software.

A resume, as well as recent papers, can be found at web site: http://web.mit.edu/sgraves/www/

WICKHAM SKINNER AWARDS, AND EMERGING **ECONOMIES YOUR RESEARCHER AWARDS, 2008**



Teaching Innovation Award

Kyle Cattani (left in picture) of the Kelley School of Business at Indiana University has applied the concept of continuous improvement to his course offerings in achieving a popular, engaging, informative, and motivating experience for 200 MBA students every year. He has written and innovatively applied case studies, published within INFORMS Transac-

tions on Education, and developed competitions and other tools that create a fun classroom learning environment, that bolster interest in the OM field, and that demonstrate the relevance of OM to a variety of industries. His innovations and delivery have significantly increased enrollments in operations electives, and are enthusiastically received by students.

The Award Committee included Wendell Gilland (UNC), Berit Helgheim (Molde U., Norway), Robert Jacobs (Indiana U.), Glen Schmidt, Chair, (U. of Utah, right in picture), Andy Tsay (Santa Clara U.), and Rohit Verma (Cornell U.). Several rounds of email voting and discussions were held in evaluating applicants.

Best Unpublished Paper Presented at the Meeting

1st Place: "Multi-Period Remanufacturing Planning" by Denizel (right in picture), Ferguson (left in picture) and Souza: This paper addresses a problem of growing importance in the area of environmentally sustainable operations: situations where a manufacturer with limited capacity remanufactures products using product returns of uncertain quality. The authors develop a stochastic program and test it via a



numerical study, using data from a major OEM to draw useful insights on the key drivers of profit in this setting.

Runner up: "Offshoring and the Location of Innovation", by Fifarek, Veloso (left in picture) and Davidson: This paper addresses the important issue of how off-shoring affects innovation. While most people believe that high-value-added jobs, such as innovation-related activities, are not affected by off-shoring, the authors find that innovation



activities that are very dependent on value chain spillovers tend to move offshore when related lowvalue added manufacturing activities move offshore. They develop a theoretical model of the innovation process and test it empirically using industry data.

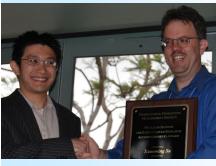
The committee included: Zeynep Aksin, Janice Carillo (right in picture), Vishal Gaur, Taylor Randall

and Kamalini Ramdas (chair), going through a two stage process to read and discuss papers. The judges looked for papers that focused on big problems of growing importance, and that added value through rigorous modeling that was grounded in real operations.

Early-Career Research Accomplishments

Xuanming Su (left in picture) received his PhD from Stanford in 2004 and has since been a member of the Operations and Information Technology Management Group at the Haas

School of Business at UC Berkeley.



Quoting from the committee and the recommendations: "Xuanming's dissertation research studies the design of kidney allocation mechanisms when patients act in their own self-interest (generally, to obtain

a kidney that is a good physiological match and in good condition). [...] His research is beginning to have an impact on medical decision making and national transplant policies." "At this early stage of his career, only three and a half years following his Ph.D., Xuanming already has eight articles published or in press, and many other working papers in the pipeline. This is an exceptional record by any standard." "Interesting research questions and high quality research" "Interesting research foci and noteworthy quality of publications at early stage in career." "Very productive. Interesting work with Zenios." And from Su's own cover letter: "Our recommendations have shaped recent modifications to the kidney allocation system in the US and are estimated to save at least 7,000 patient lifeyears per year of implementation."

Charles Corbett (right in picture) chaired the committee which represented a wide range of countries. They ranked applicants on various dimensions; Xuanming Su was the top choice or among the top choices for all members.

Emerging Economies Young Researcher Award

One way POMS reaches out internationally and to future scholars is through the new Emerging Economies Young Researcher award. Three recipients from Africa, Australasia, and Latin America received travel stipends to attend the POMS 2008 Conference in La Jolla, CA.

Ardiane Queiroz Universidade de Sao Paulo Brazil

> Anh Phan Yokohama National University

> > Japan





EMERGING SCHOLARS CONVERGE IN LA JOLLA!



By Shailesh Kukarni University of North Texas

kulkarni@unt.edu

The 5th annual POMS Emerging Scholars Program, which aims at providing valuable advice for career building and advancement to junior POM faculty, was held in conjunction with the Annual Conference. The University of Dayton continued it's tradition of sponsoring a hearty breakfast for the group of 12 junior faculty, 4 senior

scholars, 3 discussion facilitators and 5 "alumni". As has become customary, the precursor to candid discussion was an informal ice-breaker termed the scholar buddy introduction. Immediately after, the discussion kicked off with 70 "burning" questions on the agenda relating to strategic, tactical and operational aspects of teaching, research, and professional service. The questions had been submitted in advance by junior faculty. What follows is a synopsis of some important points that were discussed.

Teaching

Be at least an acceptable teacher. Get the "Content/Entertainment" ratio figured out. Student engagement is of vital importance. Teaching is becoming more important across universities and factors in more heavily when making tenure and promotion decisions. This is in part due to serious competition from online universities.

Research

Use scientific computing as much as possible. How to pick a journal? – One strategy would be to look at the "mode" of what journals have been cited and that might give you an idea. It is not a bad idea to be involved in a "hot" field – such as Health Care and Sustainable Operations in the present context. Aim to be well known across good journals rather than focusing all your energies on a single outlet. Have a "mixed" strategy as far as publications are concerned – don't put all your eggs in one basket. Try to get funded for research. Take courses, which are usually free for full-time faculty, to expand your field of knowledge. They may give you a different perspective on your own work or lead you on to a new area of work. However, having varied interests in various fields is a high-

risk strategy. Funding and grantsmanship is becoming quite important. Try to get some funding for your work.

Service

Junior faculty should get not only department and college level but University level visibility too in terms of service. Have "legitimate" service, i.e. serve on at least some committees that meet often and are important. When responding to referee comments address all referees' comments on an individual basis even if a referee has rejected the paper or has very few comments. "Interest" the referees when you give a response.

When reviewing a paper, try reading it "backwards" for a change; it might give you a different perspective.

Tenure

All junior faculty will eventually come up for tenure. It is very important to document as much as possible and keep good records. Make some "friends" when you go to conferences – go out of your immediate network. This will help you get tenure and promotion letters when the time comes. Try to attend focused conferences (such as POMS' various Colleges) and network with senior faculty. Your faculty essay is of vital importance. It should outline what your contribution to the body of knowledge is and what have been your one or two areas of research focus.

Mike Gorman devoted the last part of the session to a round of hard-ball. Raktim Pal, an alumnus from 2007 was introduced to the new batch. Raktim shared with the group how his participation in the Emerging Scholars Program had helped him in his academic career over the past year. It was decided that Shailesh Kulkarni would spearhead an effort to begin a blog for the Emerging Scholars Program. At the session's conclusion there was a round of applause for Jack Kanet who has been instrumental in making this event a bigger success with each passing year. Neil Geismar, another alumnus from 2007 joined the group as most the session wound down and everyone proceeded to lunch.



From left to right (Key: SS= Senior Scholar, DF = Discussion Facilitator, AL= Alumnus): Jack Hayya (SS), Jack Kanet (DF), Lizhi Wang, Anthony Halog, Aruna Apte (AL), Doug Hales (AL), Ahmad Rahal, Xuying Zhao, Stanley Griffis, Peter Ward (SS), Pedro Reyes (AL), Michael Galbreth, Steven Harrod, Bogdan Bichescu, Mike Gorman (DF), Almula Camdereli, Shailesh Kulkarni (AL), Mesut Yavuz, Gregory Graman (AL), Lifang Wu, Sharon Williams, Martin Stößlein (DF), Linda Sprague (SS), Jo van Nunen (SS).

HUMAN FACTORS IN DEVELOPING MARKETS



William D. Peace, Jr.
Organizational Management Consultant
Director—Global Product Supply
The Proctor & Gamble Co. (retired)
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Doing business in today's global economy is extremely difficult particularly for western-culture operations managers and MBA school graduates sent abroad to work in developing markets. Based on 32 years of experience with Procter & Gamble and lecturing at MBA schools around the world, I have discovered a huge void in understanding the vastly different human element factors and unique, critical skills required to be successful in leading and managing in developing markets such as Asia, South America and Eastern Europe.

Our business schools and companies fall short in preparing graduates and managers for assignments abroad. We do not teach and provide coaching for the unique human element differences found in developing markets in the areas of culture, leading/managing and relationship. Nor do we educate our western graduates and operations managers on the unique skills required to be successful in developing markets such as leadership, communication and collaboration.

This paper outlines the unique human element factors found in developing markets compared to developed markets, provides a compelling argument to completely understand these unique factors and analyzes the critical skills required to insure success in these markets. The purpose is to educate and motivate our western culture graduates and operations managers in order to improve the success rate of our vast talent abroad so that they can truly thrive and be successful in today's global business environment.

Human Element Factors/Skills Required

The table below illustrates, on the left, the three human element factors of Culture, Leading/Managing and Relationship chosen to represent the areas where the largest differences exist from western culture norms. Along the top are the key skills of Leadership, Communication and Collaboration. The chart indicates whether the key skills are primary or secondary in addressing the unique human element factors.

The following two sections delve into these factors and skills in a way that provides clarity on the differences and connects the unique skill sets required to mitigate the issues associated with working in developing markets to insure business success.

The accompanying figures distinguish the differences between western culture [blue] and eastern culture [red]. They were designed by Liu Young who was born in China and educated in Germany. It is believed that these same differences can be seen in other regions such as South America and Eastern Europe.

Human Element Factors

Culture—It goes without saying that outside the western world there are vast differences in culture ranging from social norms, business norms, religious beliefs and personal convictions. In Asia, It is not OK to confront someone in front of others for being late for a meeting. The person believes s/he will lose face. Do not make a pointing gesture with your foot or leg in Southeast Asia – it is rude. Furthermore, it is not OK in India to shake hands with your left hand as it is considered unclean. In Brazil or Mexico, starting off a meeting with a review of the business objectives versus informally meeting and greeting each other first is considered callous and inconsiderate. Presenting western methods of operation, supply chain management for instance, without dialogue on how work is done in the local country and what best practices already exist is interpreted as arrogant and can come across as a direct attack on the market's business culture.

Figure 1 is a good example how the eastern culture operates versus the west. Based on experience, this also plays out in South America. There is a collectiveness and strong inclusionary component in these cultures which shapes how work is accomplished and how westerners are viewed. If we are not engaging in conversation and enrolling others in our ideas we simply will not be heard nor get the cooperation needed to move the team and its business ahead. Making contacts and networking in developing markets is a key to success. Going it alone or involving only a chosen few resources in decision making, for instance, is not the way business is conducted.

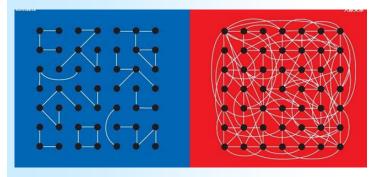


Fig. 1. "Contacts" in Western (left, blue) versus Eastern (right, red)
Culture.

The key to success in this area is to completely understand and embrace the different cultural norms that exist in developing markets. We must train and coach our graduates and operations managers on all aspects of how business is done outside our borders, most importantly in the human element areas.

Leading/Managing—Developing markets such as China, India, SE Asia and Brazil are growing so rapidly that managing tasks, action plans and day-to-day operations IS the business environment with little emphasis on strong leadership to set direction, focus on key priorities and plan for the future. You will find extremely busy, hard working, relentless and overworked people all over the 'outside world'

performing well above energy levels we are accustomed to in the west. This sometimes chaotic business envi-

		Key Skills		
		Leadership	Communication	Collaboration
Human Element Factors	Culture	Secondary	Primary	
	Leading/Managing	Primary		Secondary
	Relationship		Secondary	Primary

(Continued on page 12)

HUMAN FACTORS IN DEVELOPING MARKETS (CONTINUED)

(Continued from page 11)

ronment can be overwhelming for our expats. Based on experience, strong leadership is essential to harness the power of developing market resources. A commitment to providing direction, focus and long term planning is not only critical but very welcomed in developing markets. These market resources crave, respect and desperately want guidance and effective leadership from anywhere it exists, including the western world.

In the 'managing' area of business, another factor difference is how problems are handled. Figure 2 depicts the situation where initial avoidance of problems versus head-on confrontation exists. Based on experience, at first glance, this can be deemed totally unacceptable for westerners. Further understanding shows that it is not an avoidance of problems but rather taking deliberate time to analyze problems and discussing the situation with others before making a decision. Through effective coaching and leadership, engaging the right resources and defining the desired end point, problems and issues are resolved through consensus decision making with better outcomes than what we are used to.

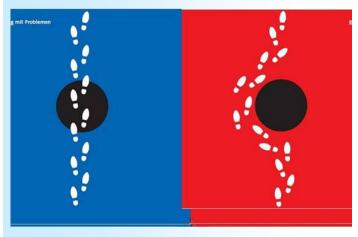


Fig. 2. "Handling of Problems" in Western (left, blue) versus Eastern (right, red) Culture.

By understanding that the distinction of 'managing' is well understood and embraced in developing markets and that the distinction of 'leading' is desperately needed and lacking provides the western manager an opening to make a huge difference.

Relationship—Relationship building in developing markets is the most critical human element factor in achieving business success, particularly in Asia and South America. In any business transaction where alignment to direction and action toward desired results is needed there are three components required in the process. First, establishing strong personal and professional **relationships** with the players, second, effective **reasoning** for all aspects of action plans and proposals, and third, defining the **contract** or agreement for moving forward. Unlike in the western business world where we tend to move very quickly to agreement on a game plan or proposal, in developing markets like Asia and South America it is critical that the appropriate time and energy is given to relationship, reason and then contract. Part of the difference in this human element factor is the strong value placed on earning trust and respect,

getting to know associates personally and professionally, and the belief that inclusion versus exclusion of resources leads to business success.

Figure 3 depicts 'anger.' Experience has shown that professionals in developing markets tend not to show or express feelings, thoughts and emotions as readily as westerners. In Thailand, for instance, it is very difficult to know how the person is feeling when the tendency is to try to please versus cause discontent. Given more guarded feelings, thoughts and emotions, it is key that relationships are established first before doing business. Knowing each other leads to understanding of cultural differences and more trust and respect which results in more openness in sharing feelings and thoughts.

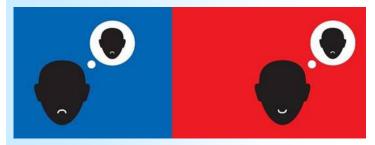


Fig. 3. "Anger" in Western (left, blue) versus Eastern (right, red) Culture.

If there is one factor which we need to understand and value it is relationship – the foundation of all aspects of doing business in developing markets. Much more attention must be given to this subject in our business schools and companies to prepare people to manage and lead in markets such as Asia, S. America and Eastern Europe.

Skill Requirements

Leadership—In the leading/managing human element section, it is evident that in developing markets 'managing' skills are high and there is a lack of strong 'leading' skills, hence the primary [P] designation for this skill area. As noted in the culture human element section, a key attribute is one of collectivism, unity and a committed effort to network and value close contact with each other. This cultural observation also suggests an absence of focal points toward common objectives and goals. Leadership skills as the secondary [S] key for success in this area provide such focus and direction and are welcomed in developing market businesses.

Leadership skill elements are vast; however, in the context of working in developing markets, there are a chosen few keys that can make the greatest impact. First, being visionary and adept at setting clear objectives and goals and then, second, enrolling others in those goals through empowerment of your resources make the biggest difference. Other welcomed leadership skill elements include engaging and involving your resources in setting the direction and developing specific action plans which provide the ways and means to get focused toward your business objectives. Lastly, being a change agent and leading by looking at what is possible versus what is limiting are skill sets needed and welcomed in developing markets.

Figure 4 brings two things to light regarding leadership. First, part of the reason 'the boss' is viewed as so important is that the need for leadership is so great, particularly when business growth is so strong.

(Continued on page 13)

HUMAN FACTORS IN DEVELOPING MARKETS (CONTINUED)

Second, if 'the boss' is viewed as so important and so strong, experience has shown that teams in developing markets will listen to and believe in everything 'the boss' says and does. Therefore, your leadership skill sets must be impeccable in order to not lead the team in the wrong direction, or lead or manage in an irresponsible way.

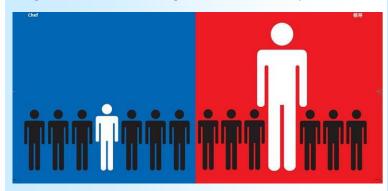


Fig. 4. "The Boss" in Western (left, blue) vs. Eastern (right, red) Culture.

Communication—Working in vastly different cultures requires communication skills far more advanced than required in western markets, hence, the primary [P] designation for mitigating **cultural roadblocks** in developing markets. Language barriers alone bear this out in the areas of both verbal and written communication. Communication skills are depicted as a secondary [S] factor to address the **relationship human element** due to the up front work needed to establish strong relationships before conducting business.

Verbal communication skills must be honed to be more clear, concise and to the point if it is not in the local language. English is a second language around the world, not the first, hence the need on the part of locals for diligent interpretation during all meetings and conversations. The possibility of mis-interpretation is huge. From experience, email conversations, graphs and charts and handouts during presentations are very effective means of communication in developing markets since written English is much more understood than verbal. Effective business writing skills must be studied and leveraged.

In establishing sound personal and professional relationships, communication is all about gaining trust, respect, listening more than speaking and understanding and outwardly valuing differences. Successful western operations managers are very open and honest and tell it like it is without confronting people in a group so as not to have individuals lose face. Effective western managers abroad live their word – promised made are promises kept. Communicating clearly what is right for the business, balanced with what is right for the people are also keys to building relationships and succeeding in developing markets.

Figure 5 makes it evident that clear, concise, straightforward communication and understanding differences in how people act, such as formulating opinions, can make a significant difference in moving a team and business forward in developing markets. Listening skills, including a great deal of patience, must be impeccable in order understand what people know, think and feel. You must keep the opinion formulation difference in mind throughout the decision making process.

Collaboration—There is no room for maverick western managers in developing markets, particularly in the human element area of **relation-ship**, hence the primary designation [P] for this skill. You simply will not

be able to do business within and across the business units without strong collaboration, engagement and influencing skills. The same is true for dealing with the different characteristics of the **leading/managing human element**, hence the secondary [S] classification for collaboration.

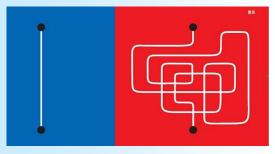


Fig. 5. "Opinions" in Western (left, blue) versus Eastern (right, red) Culture.

In cultures where inclusion, networking and forming strong relationships is prevalent, collaborating through effective means such as including resources in direction setting and action planning and engaging people in decision making is critical for success. Being highly skilled in working within and across business units and outside with suppliers and customers requires being able to get your ideas across effectively and persuasively and influencing others toward the right course of action. These are key skill sets to have in developing markets. Strong influencing skills include; first building relationships, communicating 'what's in it for them' regarding your objectives, proposals and plans, enrolling them in partnerships by making committed requests and promises and then recognizing achievements throughout the endeavor.

It is presumed, per Figure 6, that the way of life is being together, working together, succeeding together versus being or doing it all alone. Experience in most developing markets around the world shows that collaboration, inclusion, engagement and influence is the business norm and skills in these areas are a must for western managers.



Fig. 6. "Way of Life" in Western (left, blue) versus Eastern (right, red) Culture.

Summary

For our graduates and operations managers to be truly successful working abroad we must teach and coach our people on the vast developing market differences in the human element factors of culture, leading/managing and relationship. A thorough analysis and understanding of the differences must be a pre-

NEWS FROM POMS COLLEGE OF PRODUCT INNOVATION AND TECHNOLOGY MANAGEMENT

The 2nd conference of the PITM College was held at the University of California San Diego's (UCSD's) Rady School of Management on May 12–13, 2008. This special conference focused on the interface between information systems (IS), economics, innovation and technology management and brought together 50 distinguished practitioners and researchers from across the US, Brazil, Canada, Europe and India.

Discussion surrounded the key issues impacting the field of innovation, new product development, and technology management, and to facilitate the formation of a research agenda for the PITM community. In all, 13 papers were presented in six sessions covering:

New Product Development Models, Methods and Empirical Evidence in NPD, Technology Management, New Models of Product Innovation, Soft Innovation, Hard Competition, IT-enabled Innovations and Productivity.

An in-depth discussion followed each presentation led by a practicing researcher who emphasized the significance of the contributions and the issues faced by researchers in these areas. The importance of collaboration across fields, the relevance of managerial implications and the role of theory and exploration in research were raised throughout the discussions. These topics were further addressed in the panel discussion on the interplay between IT and Innovation, moderated by Vish Krishnan (UC San Diego). The panel of leading researchers included Ramayya Krishnan (Carnegie Mellon) and Barrie Nault (Calgary) from the field of IS, and Geoffrey Parker (Tulane) and Christian Terwiesch (Wharton) from the area of new product development and technology management.

Cheryl Gaimon (see picture below) was recognized for her contribution to the field through her research, service and pedagogical advancement with the Distinguished Fellow Award. The citation was read by Ed Anderson (2nd from left in picture), and outgoing President Christian Terwiesch (right in picture) presented Cheryl with the award. Incoming President Nitin Joglekar is shown on the left.

Special thanks go to UCSD's Innovation, Technology, and Operations Group, and Robert Sullivan, Dean of UCSD's Rady School of Management for hosting and sponsoring this event. The next PITM conference will be held in 2010.



The keynote speaker was Dr. Irwin Jacobs, founder and chairman of Qualcomm Incorporated. Dr Jacobs pioneered the development of wireless technology management and, in a fascinating speech he highlighted the role of innovation throughout his career and the importance of research and development during the evolution of Qualcomm.



PITM BOARD

At the recent May meeting the College announced the newly elected officers for 2008. Special thanks were given to the outgoing officers and they were acknowledged for the work achieved during the last two years.

Incoming Officers (May 2008)

President: Nitin Joglekar, Boston University.

Vice President for Special Events: Thomas Roemer, UCSD.

Vice President for Meetings: Geoffrey Parker, Tulane.

Vice President for Honors & Awards: Cheryl Druehl, George Mason.

Treasurer: Glen Schmidt, University of Utah. Secretary: Stelios Kavadias, Georgia Tech.

Outgoing Officers (May 2006 - May 2008)

President: Christian Terwiesch, Wharton.

Vice President for Meetings: Michael Lapre, Vanderbilt.

Vice President for Special Events: Nitin Joglekar, Boston University.

Vice President for Honors & Awards: Edward Anderson, UT-Austin.

Treasurer: Janice Carrillo, University of Florida. Secretary: Kamalini Ramdas, University of Virginia.

The College's web site is: http://www.poms.org/colleges/cpitm/

Submitted by Jane Davies, Boston University.

(Continued from page 13)

requisite for working abroad. Also, we must ruthlessly and relentlessly teach and coach our people on the critical skills of leadership, communication and collaboration required to be successful.

Far too often, business schools and western companies fail to educate our people on the human side of developing markets. Training on technical processes, methods and operations of the western world with the absence of training and coaching on skills required to perform effectively sets our people up for failure. A deliberate balance is required among the knowledge areas of technology, differing human element factors and skills needed to be effective.

Regardless of where you work, understanding developing market human element factors and the skills required to be successful will help you thrive in managing and leading in this global economy.

Footnote: I would like to extend my appreciation to Nathaya Chareon, Department Manager, Procter & Gamble Pte Ltd – Singapore, and Priscilla Chia, Group Manager, Procter & Gamble Ltd – Malaysia, for their significant contribution to this paper, particularly in the area of developing market human element factor understanding, analysis and validity.

NEWS FROM POMS COLLEGES



College of Supply Chain Management— News and Views.

Karen Donohue, POMS SCM College President

U. of Minnesota, USA

I would like to extend a special thank you to Professor Jay Swaminathan for serving as president of the College of Supply Chain Management for 2007-2008. Jay's tireless effort and dedication ensured another successful year for the college.

One highlight of the year was the awarding of prizes to the finalists of the SCM Student Paper Competition at the POMS meeting in May. The quality and range of supply chain research being conducted by our junior scholars was quite impressive, which bodes well for the future of the profession. Many thanks to Brian Tomlin for overseeing the competition this year. The finalists and two first place winners were:

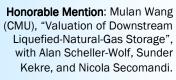


First place (tie): Nitin Bakshi (Wharton), "Securing the Containerized Supply Chain: An Economic Analysis of C-TPAT, with Noah Gans.

First place (tie): Sang-Hyun Kim (Wharton), "The Curse of Reliability: Outsourcing Restoration Services for Infrequent, High-Impact Equipment Failures", with Morris Cohen, Serguei Netessine, and Senthil Veeraraghavan.



Honorable Mention: Richard Lai (HBS), "Is Inventory's Fiscal Year End Effect Caused by Sales Timing? A Test Using a Natural Experiment from Germany".





A second highlight of the year was the record number of SCM paper presentations at the POMS 2008 annual meeting. Over 180 presentations took place on supply chain issues, organized into 40 sessions. Fourteen of these sessions consisted of invited talks. Thanks to Mark Ferguson and Nagesh Murthy for organizing all of these sessions. We are currently looking for organizers to co-chair this effort next year. If you are interested, please let me know.

Looking toward the coming year, stay tuned for more information on the 3rd Annual Supply Chain College conference which will take place immediately after the POMS 2009 Annual Conference. This conference offers a unique opportunity to bridge between participants in academia and industry, and discuss cutting edge supply chain management issues. The conference will take place at Rollins College and will be jointly sponsored by Rollins College and the University of Florida.

College of Healthcare Operations Management

The POMS College of Healthcare Operations Management is off to a great start. The first meeting was held in La Jolla, with a large turnout, and with lots of ideas and energy. The officers are as shown below.



Founding Board

President: Vedat Verter

McGill University

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Treasurer: Paul Gemmel (Ghent University) Secretary: Sarang Deo (Northwestern University) Online Editor: Beste Kucukyazici (McGill University) Advisory Board Liaison: Ken Klassen (Brock University)

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Sylvain Landry (HEC - Montreal)
Arielle Lasry (U.S. Center for Disease Control)
Gautham Suresh (Dartmouth-Hitchcock Medical Center)
Anita Tucker (Harvard University)

College Website

A College website has been established to convey the latest information: http://www.poms.org/colleges/chom/

Call for Papers

The College is spearheading a Special Issue of *Production and Operations Management* on Healthcare Operations Management. Guest editors are: Craig Froehle, University of Cincinnati, craig.froehle@uc.edu, Anita Tucker, Harvard University, atucker@hbs.edu, and Stefanos Zenios, Stanford University, <a href="mailto:stefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefanos-tefa

Innovations in Healthcare Delivery 2008 conference

The College is co-sponsoring the Innovations in Healthcare Delivery 2008 conference, on Sep 18-19 in Cincinnati, OH (details at www.cchmc.org/ihd-conference). Other sponsors include Cincinnati Children's Hospital Medical Center, the University of Cincinnati, and Brock University.

Upcoming Events

The College is in the process of organizing a 1-day workshop on April 30, 2009 in Orlando prior to the POMS Annual Meeting.



NEWS FROM POMS COLLEGES (CONTINUED)

College of Sustainable Operations



Congratulations to the new College Board members:

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McGill University

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Online Editor: Fuminori Toyasaki (York University)

The College extends its thanks Dan Guide (Penn State) and Luk van Wassenhove (INSEAD) for their previous service.

For more information, visit the College's web site: http://www.poms.org/colleges/csustops/

College of Service Operations

For College information: http://www.poms.org/colleges/cso/

College of Human Behavior in Operations Management

During the POMS conference in La Jolla the College of Human Behavior in Operations Management has been officially launched with full support of the POMS Officers and Board members. Everybody with an interest in this fascinating aspect of Operations Management is very welcome to join this college.

For more information, visit the College's web site: http://www.poms.org/colleges/chbom/

President: Henrique Correa

Rollins College hcorrea@rollins.edu



Vice President: Abdul Aziz, Morgan State University,.

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Advisory Member: Sushil Gupta, Florida International University.

Advisory Member: Martin Starr, Rollins College. Advisory Member: Peter Ward, Ohio State University.

Note: the current board is appointed as a caretaker board until formal board elections are organized.

(Continued from page 17)

this time constraint, I assigned teams and provided an introduction ahead of time, used the shortened version of the game, and completed the debrief discussion during the next class session.

Glen Schmidt, University of Utah

Students found the game to be engaging and yet highly instructive. The game maintains a high energy level throughout a four-hour session. It is game that students will talk about after they leave class; one that releases their competitive juices, but teaches them that pushing their competitiveness too far results in

"the winners curse" (and provokes them to curse the winner). I use it in my evening MBA elective in supply chain management, attended by practicing managers and employees. It doesn't replace a set of readings, but it brings to life lessons about hidden information, hidden actions, and misaligned incentives. In discussing theory, we tell students to develop win-win negotiation strategies. This game gives students a chance to practice (and often fail) in devising such strategies. Students may yawn if you simply tell them that the total supply chain profit can increase when they collaborate, but the game gives them a chance to practice what we teach.



Andy Tsay, Santa Clara University

I've used the Outsourcing Game three times with my MBA elective "Supply Chain Outsourcing." This course typically draws ~25 students, a significant number of whom have concurrent or prior supply chain responsibilities in Silicon Valley's highly outsourced OEM firms (such as Cisco Systems, Hewlett-Packard, and Xilinx) or

their service providers (such as Flextronics and Avnet).

Student feedback has been overwhelming positive. For example, in January 2008, 22 out of 23 students "strongly agreed" that: "The simulation is important and relevant to the course focus." Written comments backed this up. For example, one student wrote: "Excellent learning experience, provides understanding you may not otherwise achieve. Beautifully demonstrates misaligned incentives, difficulty negotiating with incomplete info, and the perils of human nature. This should definitely be a fixture of the course."

Most students take this elective fairly late in the program, and some will have studied negotiation by then. The course meets for 10 weekly sessions of 2.5 hours, and the game is played in the fifth session, with 30 minutes of the preceding session used for preparation. By this point, students have been exposed to the risks of outsourcing and the concept of moral hazard.

References

Amaral, Jason, Corey Billington, Andy Tsay, "Safeguarding the Promise of Production Outsourcing," *Interfaces*, 36, 3 (2006), 220-233.

Amaral, Jason and Andy A. Tsay, "The Outsourcing Game: A Teaching Simulation of Power Dynamics in Outsourced Supply Chains," Operations Management Education Review, 2, 1 (2008), 1-27.

For information on game availability, please contact Jason Amaral at jamaral@emeraldwise.com.

"THE OUTSOURCING GAME" ADDRESSES SUPPLY CHAIN POWER, INCENTIVES, & COLLABORATION



Jason Amaral
Managing Director, *Emeraldwise*jamaral@emeraldwise.com.



Santa Clara University



We introduced "The Outsourcing Game" at Santa Clara University in 2003. Since then, the role-play simulation has been run more than 30 times with more than 700 participants at 11 universities (Arizona State U., IMD, MIT, Nyenrode Business U., The Ohio State U., Purdue U., Santa Clara U., Tulane U., U. of Utah, Washington U. in St. Louis, The Wharton School). It was a key part of a teaching portfolio that was honored with the POMS *Wickham Skinner Award for Teaching Innovation* for 2007.

The game provides a platform for conveying important lessons regarding the changed nature of operational decision-making in today's highly outsourced economy. Many in the modern business community have embraced outsourcing as a way to focus on core competencies, increase flexibility, and improve return on assets (among other benefits). Yet many have also misunderstood or underestimated the dramatic change that occurs when internal functions are converted into services procured from independent firms.

We became more fully aware of potential problems in our survey of outsourcing practices at Fortune 500 firms (Amaral, Billington, and Tsay, 2006). Because outsourcing distributes decision-making authority across multiple companies whose relationships are shorter-term and more transactional, greater vigilance is required in structuring tasks, aligning incentives, and monitoring of actions.

The Outsourcing Game elicits tangible examples of potential hazards, in order to reinforce the lessons that are usually delivered through readings, lectures, and case discussions. It uses a realistic, but simplified outsourcing scenario that combines hidden information, misaligned incentives, and hidden actions with distributed power and weak governance (Amaral and Tsay 2008). Five teams—representing different supply chain roles from supplier to brandowner—try to influence an outsourcing decision based on a series of bilateral and multilateral negotiations. The full game requires about 4 hours of class time.

Due to space constraints, we will not summarize the game here. A full description is given in Amaral and Tsay (2008). The rest of this article provides first-hand accounts from some professors who have used the Outsourcing Game in their courses.



Corey Billington, IMD

I've used the Outsourcing Game several times in the operations core. Participants are full time MBA students; 31 years old on average with 7 years of professional experience. The course is at the beginning of the program and I deliver the game as part of a

12 hour set of classes on collaboration. Our classes are 4 hours long, so one class has enough time for the game, a lecture, and discussion of learning points. Student feedback has been very good, because the game shows how hard it is to *really collaborate* versus simply talk about it. The learning point that sticks best with students is that collaboration delivers huge benefits, but is against

human nature in some basic way. Ultimately, it takes hard work and good processes to collaborate effectively. The game provides a basis for understanding the difference between talk and action.



John Gray, The Ohio State University

I used the Outsourcing Game in the ninth class of an MBA "Global Sourcing" elective. The course is strategic and case-based. Students had already studied makebuy theories (including the generic benefits and risks), and had read two book chapters on sourcing. To ac-

commodate the necessary time, I extended a normal Thursday class by two hours and offered a second section on Friday morning. In addition, I invited industry practitioners from our Center for Operational Excellence to attend. Both sessions ended up having a relatively equal mix of students and practitioners.

Students rated the game very highly, and several commented that it "brought to life" lessons such as the loss of some decision control, the potential for misaligned incentives, the risk of opportunistic behavior, and the criticality of negotiation skills. Students found themselves behaving opportunistically and even deceitfully and were surprised by the role that their emotions and personal feelings played into their decision-making. Without a simulation, it would be very difficult to demonstrate this to students.

Among the practitioners, several noted that the game made them think about the different roles. One described her learnings as things "I can take back to my daily work." And, of course, several observed that the game was "interesting and fun."

A colleague of mine from Strategy also participated and found the simulation fascinating, stating he could take the class through four more hours of discussion about what happened, tying the behaviors observed in the game to the theories of firm boundaries.

While students certainly benefited from their interactions with the experienced practitioners, I may keep these groups separate in the future. The practitioners wanted more time (some a full day) to discuss what happened and use it as a foundation for learning new strategies and techniques. With the students, I used subsequent class sessions for this purpose. In summary, the Outsourcing Game is a very useful learning tool and I plan to use it again.



Geoffrey Parker, Tulane University

I've used the Outsourcing Game in a first-year MBA core Operations course with a large mathematical component, so the game provides a welcome experiential break from cases and model lectures. Students are 26 to 30 years old (with some outliers). We ran the

game for about 100 people in Fall 2006 and 75 in Spring 2008.

Student comments suggest that they found great value in the course and said that more core courses should have experiential content like the Outsourcing Game. Formal feedback from both years was very positive. (Thanks in part to the game, I received the core course teaching award both years). Key learning points relate to the trust and reputation effects that can hurt or help outsourcing success. The students also learn the need to quickly process information in order to prepare for negotiations.

Each session of the 7-week course is about 2 hours long. Due to

(Continued on page 16)

POM SPECIAL ISSUE: RESEARCH ON EMERGING MARKETS

Co-editors:

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Deadline: December 1, 2008

Over the past decade, there has been increasing interest in operations and supply chain management (O&SCM) issues pertaining to entry and practice in emerging market economies. The term emerging markets came to the limelight during the 90's and is now widely used to describe countries that have reached a minimum level of GDP and are in the growth phases of their market and economic development cycles.. China and India have been among the most significant emerging markets in the Asia Pacific region and globally overall due to their sheer size and market growth potential, and others like Vietnam in the region are on the rise.

However, emerging markets in Eastern Europe, South and Latin America, and most recently, Africa are also of importance to operations and global supply chain management.

Much of the extant academic literature falls in the strategic management and economic domains and cover the broader issues of globalization that have been enabled by the convergence of information and communication technologies, the drive for growth in new markets and resources, and the broad-based perceived need to lower costs. In contrast, O&SCM literature is scant, consisting of qualitative descriptions and anecdotal cases. Much more needs to be done in the way of applying robust research methods in O&SCM to build theory and guide practice. There is a dire need to develop theoretical explanations that underlie the challenges, the opportunities and the decisions regarding O&SCM in emerging markets.

The O&SCM topics pertaining to emerging markets are many. Two of the most prominent "meta" areas include 'outsourcing' and 'offshoring' to emerging markets. Here outsourcing covers the turning over the production of parts, components, systems, and services – and even full production of finished products or complete services – to another firm; whereas offshoring (or offcounty) broadly refers to a company's moving of its own production and services to another country and/or establishing business operations in the emerging market. Outsourcing and offshoring have been studied extensively in the context of industrialized nations. Yet there is a dire need for further exploration as outsourcing and/or offshoring intensify in emerging markets, where there are substantially more operational risks due to factors like market and financial volatility; cultural, legal, fiscal, and geographic distances; quality fade; supply disruptions; infrastructural challenges; lack of transpar-

ency and performance measurement problems; differences in worker norms and business relationships and contracts; and leverage and exposure to financial and operational resources, etc.

Our ultimate goal is to foster the development of a coherent, cumulative body of O&SCM knowledge in emerging markets. Toward this end, we invite manuscripts that rigorously apply analytical methods and empirical science that are of strategic importance to understanding manufacturing and service operations and supply chain management problems and that will stimulate future research. We seek high-quality research that contributes to analytic insights, algorithm development, theorybuilding and testing. Manuscripts will be judged solely on the relative merits of their contribution to the production and operations management literature, the depth and completeness of thought and ideas that are presented, the integration of the research with the O&SC and other related literature and theory, the quality of the research design and model, the support for the stated contributions, and the clarity and writing quality. Manuscripts that are inappropriate will be promptly returned. In short, we strive for papers that ask, "What's interesting and important for O&SCM in emerging markets?" which serve to accelerate development of our field more broadly.

All submissions must adhere to the format, style and other established guidelines for regular POM submissions. Manuscripts must be submitted by December 1, 2008. Authors should note that in submitting a manuscript to be reviewed for this special issue, they may be invited to serve as potential reviewers for other manuscripts.

O&SCM topics that are of interest for this special issue on emerging markets include but are not limited to:

- Operational risks including supply disruptions, performance measurement, hidden costs, complexity, and tradeoffs
- · Models examining outsourcing and offshoring
- · Contracts used in emerging economies
- Outsourcing and procurement management
- Collaboration approaches for design, development and manufacturing
- Service/product strategies for culturally diverse customers
- Quality management, certification, compliance strategies
- Logistics outsourcing and partnerships
- · Service supply chains
- Alignment of competitive environments, capabilities and O&SCM strategies
- Governance structures and corporate social responsibility in offshoring and/or outsourcing
- Cultural and organizational issues in behavioral operations

Please submit an electronic copy to any one of the editors.

OLD WINE IN A NEW SKIN (DESIGN FOR DISTRIBUTION)



Kevin Howard

Packnomics, LLC

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Editor's note: Former POMS president Hau Lee once introduced Mr. Howard as "the father of postponement." Kevin replied that he

appreciated the introduction but wasn't sure his wife should be informed of this hidden fatherhood. In the article that follows, Kevin discusses an often ignored aspect of product design; that of design for distribution. This is an important topic in a world experiencing outsourcing and increasing shipping costs. The title of the article, "Old wine in a new skin," stems from the wine example that follows. Here is Kevin's article:

The postponement concept has caught on for a variety of reasons, but this article discusses the importance of product and component design from a packaging engineer's perspective, to reduce operations costs. Very few companies take a holistic approach to product design, where the mechanical engineers go beyond direct material cost, aesthetics and product functionality. The missing component is logistics functionality, allowing lower packaging costs, reduced damages, and minimized distribution, handling, and storage costs. All of these can be favorably impacted by providing more direction to the design team, from a packaging engineer's knowledge of transportation vehicle sizing and typical hazards to protect from, on how to minimize such costs.

Below are some pictures of a bearing with a sensitive edge. The bearings were simply dumped into a corrugated box by the supplier and sent to the company using it in an electro-mechanical product. As the bearings hit each other and vibrated in transport, the critical edge was commonly scratched or gouged.



The initial response was to wrap each bearing individually in a sheet of polyethylene micro-foam. The foam had to be taped to not allow the bearing to escape while in transit.



With foam wrapping, density fell to about one third of the original number of bearings per box and pallet load, meaning the direct material costs for the foam, boxes, and pallets all increased on a per piece basis. It also meant it took 3 times as many fork handling trips into and out of trucks to attain the same number of bearings as before, let alone to keep the manufacturing line supplied. On the manufacturing line, the operator could no longer keep within cycle time because of the need to remove individual packaging. As a result, they often "flipped" the bearing out very quickly during lolls of a few seconds, allowing several bearings to fall into a tray at the work station. This action would cause damages, yet again, to some percentage of bearings.

The ultimate solution was to minimally modify the design of the bearing, allowing them to stack on each other, similar to Lego blocks. The protruding male feature, which was not critical for its diameter, was simply reduced by 0.4 mm. This allowed bearings to stack directly and securely onto each other. Designing components to be self-stacking, self-nesting, and self-presenting assures minimal packaging protection, maximized density on pallets or in boxes, virtually zero damages, and assists the line operator by always presenting the part in a specific orientation. Designing components this way not only helps manual operations, but would be essential in robotic cells as well. A company could certainly pay for fancy packaging trays to help locate components in space, but why do that when such capabilities can simply be integrated directly into the component or product? Adding packaging protection for such components also relegate manufacturing sites to collect and dispose of such materials...a non-value added activity.



I have now assisted in this type of exercise several times. Engineers are often surprised when I ask how two of their components will be shipped. I encourage them to design two or three to fit together, without the need for packaging protection. In fact, wherever I see packaging, I know that it is covering up a possible flaw in product design. One of the reasons that packaging postponement was a resounding success for DeskJet printers was that no one had previously taken advantage of the inherent physical strengths of the bare product to withstand all of the normal hazards found in distribution: shock, vibration and compression. The assumption by many is that packaging is required to ship a product successfully, especially internationally. However, if one can shape the hazards the product is exposed to, for instance by assuring the load stays unitized and thus reduce exposure to large shocks, then much of the packaging can be dispensed with.

Can you imagine the positive impact if this simple concept were applied to just a small percentage of the billions of parts that make up prod-

(Continued on page 7)

20TH ANNUAL CONFERENCE, MAY 1-4, 2009, ORLANDO, FLORIDA



Disney attractions.

ment context.

General Chair
F. Robert Jacobs
jacobs@indiana.edu



We invite you to participate in the 2009 Annual Conference of POMS, to be held on May 1-4 in Orlando, Florida at The Buena Vista Palace Hotel & Spa. The hotel is located in the Walt Disney World Resort directly

Given the global reach of POMS members the theme of this year's conference is *Global Challenges and Opportunities*. It is exciting how POMS has evolved into a global community of academics with a strong common interest in Operations and Supply Chain Management. The theme underscores that our purpose with the conference is to share ideas on how to address the challenges and opportunities presented by business today in a global setting. Our hope is that the 2009 conference will be a showcase of relevant research that addresses these challenges and opportunities in our production and operations manage-

across the street from Downtown Disney with easy access to all the

We have organized the conference into tracks (see list at right) and have over 50 track chairs who will work at developing the sessions for this year's conference. We encourage you to participate in the conference by presenting a paper, organizing a session, or participating in activities such as the doctorial consortium, emerging general



scholars program, workshops and other sponsored sessions.

All of the information needed to submit your contribution, register for the conference and secure hotel registration is contained on the conference website at: http://www.poms.org

We encourage you to plan a fun trip to Disney, bring your families and friends and enjoy your time at this world class venue.

We look forward to seeing you in Orlando in May.

Emerging Scholars Program: Jack Kanet, U. of Dayton. **Doctorial Consortium:** Ken Klassen, U. of Waterloo.

Tracks and Track Chairs:

- 1. Benchmarking, Performance Measurement and Improving Supply Chain Performance: Dana Johnson
- 2. Disaster Management: Marty Starr, Sushil Gupta
- 3. Educational Issues in Operations Management: Paul Schikora, Doug Moodie
- Empirical Research in Operations Management: Carol Prahinski, Gopesh Anand
- 5. Facility Logistics: Rene de Koster
- 6. Global Supply Network Security: Batoul Modarress
- 7. Healthcare Operations: Craig Froehle, Vikram Tiwara
- 8. Human Behavior and Behavioral Dynamics in Operations Managemen: Elliott Bendoly, Henrique Correa
- 9. International and Global Operations: Doug Moodie
- 10. Inventory Management: Metin Cakanyildirim, Greg Graman
- 11. JIT & Lean Systems: Rachna Shah, Kevin Watson
- 12. Logistics Applications in the Public Sector: Martha Cooper, Pam Donovan
- 13. Logistics Management: Gene Tyworth, Jack Crumbly
- **14. Managing Disruptions in the Supply Chain:** Kathy Stecke, Tom Schmitt, Sanjay Kumar
- 15. Operational Advantage Group: Rafael Menda
- Operations Management/Marketing Interface: Kathy Stecke, Xuying Zhao
- **17. Product Innovation and Technology Management:** Kaushik Sengupta, Tyson Browning
- 18. Project Management and Econometric: Larry White
- 19. Purchasing: Tobias Schoenher, Sachin Modi
- 20. Quality Management: Don Wardell, Robert Vokurka
- 21. Role of Technologies in Global Supply Chains: Pedro Reyes
- 22. Service Operations: Rich Metters, Larry Menor
- 23. Strategic Sourcing: Marco Busi
- 24. Supply and Value Chain Networks: Ben Clegg, Stan Griffis
- 25. Supply Chain Management: Amit Eynan, Kelly Weeks
- **26. Sustainable Operations & Closed Loop Supply Chains:** Ravi Subramanian, Atalay Atasu
- 27. Spanish Track: Afonso Carlos Correa Fleury





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