UNIVERSITY OF PITTSBURGH JOSEPH M. KATZ GRADUATE SCHOOL OF BUSINESS AND COLLEGE OF BUSINESS ADMINISTRATION

CENTER FOR SUPPLY CHAIN MANAGEMENT

THE EVOLVING RESPONSIVENESS COST FRONTIER

2017 Supply Chain Management Symposium

NOVEMBER 3, 2017

Wyndham Pittsburgh University Center

University of Pittsburgh
PittBusiness

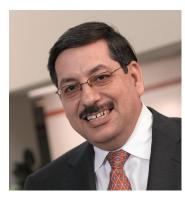
Center for
Supply Chain Management



A MESSAGE FROM THE DIRECTOR

I am extremely proud to welcome you to the Pitt Business Center for Supply Chain Management's 2017 Supply Chain Management Symposium "The Evolving Responsiveness Cost Frontier."

Cost and responsiveness — two factors intertwined in modern supply chain systems — are critical concerns for organizations as they develop strategies to compete in the current, dynamic marketplace. Opportunities for improvements in this landscape are being driven by emerging disruptive technologies and new supply chain relationship structures between vendors and buyers, while challenges are surfacing from increasingly stringent customer demands and constantly evolving market trends.



At today's Symposium, we will hear from leading experts from Becton, Dickinson and Company (BD), Deloitte Consulting LLP, Google Express, IBM, and Lexmark International. Our moderator, Brian Baskin, editor of the Logistics Report at *The Wall Street Journal*, will also share his insights. He is participating in the Symposium for the second consecutive year. The speakers will be introduced by Lisa Scales of the Greater Pittsburgh Community Food Bank and Meredith Williams of DHL. As part of the Symposium, we have also organized a student poster competition. I would like to express my deepest gratitude to all our speakers, moderator and introducers, and judges for volunteering their time with us today.

Today's Symposium is an important part of the mission of the Pitt Business Center for Supply Chain Management, which is to pursue excellence in supply chain management. By bringing together industry leaders and the academic community, we facilitate an environment in which it is possible to engage in networking and knowledge sharing. I believe programs like this are one of the reasons why our Joseph M. Katz Graduate School of Business was recognized by Gartner as having a Top 20 graduate program in supply chain management.

In addition to the Symposium, there are numerous other ways to get involved with the Center. We host a Breakfast Speaker Series in which industry experts speak on a contemporary issue in supply chain management, while participants gather for a morning of food and fellowship. We also organize case competitions involving undergraduate and graduate students in which industry leaders serve as judges and students gain hands-on experience in real-world issues. Your organization also has the opportunity to become a sponsor of the Center. If you would like to become more involved with the Center, please speak with me or contact the Center at scmcenter@katz.pitt.edu.

I would like to offer my sincere thanks to our sponsoring organizations, which are listed in the program. I am especially grateful to GENCO and the company's former Executive Chairman, Herb Shear, for providing the seed funding to establish our Center. Finally, I would be remiss if I did not also extend my thanks to my colleagues at the Center — Associate Director and Clinical Associate Professor of Business Administration Eric Paljug and Program Manager Janice Trygar — as well as the members of our Breakfast Speaker Series Planning Committee and Corporate Advisory Board. Many of them are here today, and they have contributed to the planning, coordination, and execution of the Symposium.

Thank you all for attending today's Symposium. I hope you find the sessions to be valuable, and get a chance to visit the poster competition. This promises to be a fantastic event.

Sincerely,

Prakash Mirchandani
Director, Center for Supply Chain Management
Professor of Business Administration
University of Pittsburgh
Joseph M. Katz Graduate School of Business and College of Business Administration

EVENT SCHEDULE

| 7:30 - 8:30 a.m. | Registration, Breakfast, and Networking | Lobby |
|------------------|--|---------------------|
| 8:30 a.m. | Welcome | Schenley |
| | - Dr. Prakash Mirchandani, Director, Center for Supply Chain Management | Ballroom |
| 8:35 a.m. | Morning Introductions by | Schenley |
| | - Meredith Williams, Director of Solution Design, DHL Supply Chain | Ballroom |
| | Transforming Lexmark's Supply Chain | Schenley |
| | - Tonya Jackson, Senior Vice President and Chief Supply Chain Officer, Lexmark International | Ballroom |
| 9:30 a.m. | Coffee Break (Sponsored by Pensiamo) | Ballroom |
| 9:50 a.m. | Disrupt, Transform, Repeat: Supply Chain Innovation Enabled by Cloud | Schenley |
| | - Stephen Laaper, Principal, Strategy & Operations, Deloitte Consulting LLP | Ballroom |
| | - John R. Tweardy, Principal, Cloud, Strategy & Operations, Deloitte Consulting LLP | |
| 11:00 a.m. | The Next Wave: Bringing the Store To Give-It-To-Me-Now Consumers | Schenley |
| | - Ryan Quinlan, Head of Fulfillment, Google Express | Ballroom |
| 11:55 a.m. | Lunch | Bridges Cove |
| 1:00 p.m. | Visit Our Student Poster Competition | Carnegie Roon |
| 1:45 p.m. | Afternoon Introductions by | Schenley |
| | - Lisa Scales, President and CEO, Greater Pittsburgh Community Food Bank | Ballroom |
| | Improving Supply Chain Performance and Blockchain Applications | Schenley |
| | in Supply Chains | Ballroom |
| | - Chandra Narayanaswami, Principal Research Staff Member and Member, | |
| | IBM Academy of Technology, Thomas J. Watson Research Center, IBM | |
| | - Suzanne Valentine, Distinguished Engineer and Chief Data Scientist, | |
| | IBM Watson Customer Engagement, IBM | |
| 2:55 p.m. | Coffee Break (Sponsored by Manhattan Associates) | Ballroom |
| 3:15 p.m. | Supply Chain Integration of Large Mergers and Acquisitions | Schenley |
| | - Larry P. Smith, Vice President (Retired), Global Supply Chain, | Ballroom |
| | Becton, Dickinson and Company (BD) | |
| 4:10 p.m. | Awards Ceremony S | Schenley |
| | E | Ballroom |
| 4:25 p.m. | Closing Remarks S | Schenley |
| | - Prakash Mirchandani | Ballroom |
| 4:30 - 5:30 p.m. | Cocktail Reception with members of our Corporate Advisory Board E | Bridges Lounge |
| | | |

SPEAKERS



TONYA JACKSON Lexmark International | Senior Vice President, Chief Supply Chain Officer

Tonya Jackson is responsible for worldwide supply chain operations including demand/supply planning, global sourcing, hardware and supplies manufacturing, logistics, and the Shared Service Centers for Lexmark. She has held various leadership roles at Lexmark, including director of experience design; director of technology services; director of sustainability; and technology manager. Jackson also has co-authored five U.S. patents related to Lexmark's ink jet technology.



STEPHEN LAAPER Deloitte Consulting LLP | Principal, Strategy and Operations

Stephen Laaper is a principal in Deloitte Consulting's Strategy and Operations practice, and serves a broad range of clients across pharmaceutical, medical technology, consumer products, and automotive industries. He serves clients in the journey of advancing their end-to-end supply network and manufacturing capabilities through digital technologies, including advanced analytical methods, robotics, additive manufacturing, and industrial applications of the Internet of things.



CHANDRA NARAYANASWAMI IBM | Principal Research Staff Member; Member, IBM Academy of Technology

Chandra Narayanaswami is a principal research staff member working on Blockchain and Supply Chain at IBM Research. From 2008 to 2016, he was actively involved in core science and technology for several areas of cognitive commerce including real-time personalized customer engagement solutions, local events-based marketing kit, alternative and dynamic points of commerce, next generation supply chains, omnichannel inventory and order fulfillment optimization, and retail/mobile payments. He holds approximately 100 U.S. Patents and was twice named an IBM Master Inventor.



RYAN QUINLAN Google Express | Head of Fulfillment

Ryan Quinlan runs daily fulfillment operations for Google Express. He focuses on building a scalable operation with merchant partners by building operational tools and systems. Prior to Google, he worked in supply chain and operations roles at Amazon.com, various 3PL firms, SkyWest Airlines, and Union Pacific Railroad. He has a Master's degree in Supply Chain from MIT and earned an MBA and a bachelor's degree from Brigham Young University.



LARRY P. SMITH Becton, Dickinson and Company (BD) | Former Vice President, Global Supply Chain

Larry P. Smith is a Supply Chain and Operations Executive with over 40 years of experience in Clinical Diagnostics and Medical Device companies. He recently retired from his role as vice president, Global Supply Chain at Becton, Dickinson and Company (BD). He is also a former vice president of Global Supply Chain Management for Dade Behring. Larry is a founding member of the Medical Device Supply Chain Council, and serves on the supply chain advisory councils of several universities.



JOHN R. TWEARDY Deloitte Consulting LLP | Principal, Cloud, Strategy and Operations

John Tweardy is a principal and CIO Fellow, and is the Cloud Strategy Leader for Deloitte Consulting. In this capacity, he co-leads Deloitte's Cloud Market Offering, driving an end-to-end perspective on the value of cloud to the enterprise. He has assisted clients with IT service delivery model challenges, including IT strategy, Cloud strategy and migration, GBS and IT Outsourcing, IT cost optimization, complex vendor management, and IT Transformation.



SUZANNE VALENTINE IBM | Distinguished Engineer and Chief Data Scientist, IBM Watson Customer Engagement

Suzanne Valentine (Suzy) is chief data scientist for IBM Watson Customer Engagement, a portfolio of cognitive enterprise software offerings for Marketing, Commerce, and Supply Chain. She is responsible for data strategy and works with IBM Research to identify innovation opportunities with clients. She is the former head of data science at DemandTec and previously worked at Procter & Gamble in the areas of Trade Promotion Optimization, and the design and analysis of clinical trials.





BRIAN BASKIN Editor, Wall Street Journal Logistics Report, The Wall Street Journal

Brian Baskin leads a team of reporters and editors who cover supply chain and logistics issues for *The Wall Street Journal*. He previously served as a commodities, FX, and emerging markets editor. Prior to joining *The Wall Street Journal*, he reported on the oil market for Dow Jones Newswires and business and healthcare for the *Arkansas Democrat-Gazette*. He holds a bachelor's degree in history and political science from Brown University.

SPEAKER ABSTRACTS

TONYA JACKSON

Transforming Lexmark's Supply Chain

Supply chains must transform in response to market changes, technological changes, sourcing changes, and strategy changes. Lexmark, a leader in image management, has been making structural changes to its global supply chain in response to a dynamic business environment. Tonya Jackson will describe Lexmark's global manufacturing, distribution, and marketing footprint, and its redefined focus on the business-to-business market. She will discuss how Lexmark manages its three separate, yet related, supply chains for printers, supplies, and services. Each has unique characteristics that are designed to achieve high responsiveness and low cost. She will also give examples of Lexmark's innovative solutions to help clients better manage their supply chains.

STEPHEN LAAPER AND JOHN R. TWEARDY

Disrupt, Transform, Repeat: Supply Chain Innovation Enabled by Cloud

The "cloud" and ensuing digital supply networks are transforming how customers do business by enabling improved agility and reliability. In this Deloitte panel, Stephen Laaper and John Tweardy will enlighten us on cloud, and the speed at which it is transforming and disrupting traditional supply chains. A cloud-enabled infrastructure makes quicker implementation of new applications possible, thus helping customers to achieve higher quality, productivity, and speed. It enables digital supply chains, which have capabilities far superior to those of traditional supply chains. By using recent case studies, the speakers will describe how real-time product analytics and quality sensing, synchronized smart factories, coordinated demand and supply, and predictive analytics are helping companies to improve efficiency and spur innovation.

CHANDRA NARAYANASWAMI AND SUZANNE VALENTINE

Improving Supply Chain Performance and Blockchain Applications in Supply Chains

How can we use cognitive capabilities for better visibility into the supply chain? What broader commercial links should supply chain managers be cognizant of? In the first part of this two-part IBM session, Suzanne "Suzy" Valentine will explore these questions and describe other recent work at IBM that is helping companies to improve their supply chain performance. Chandra Narayanaswami will then explain how blockchains — one of the least understood technologies, but one that has tremendous potential — work in the supply chain. After discussing the value proposition that this technology brings, he will use some cases from retail, logistics, and banking, and also in industries as diverse as food, automotive, and precious gems.

RYAN QUINLAN

The Next Wave: Bringing the Store to Give-It-To-Me-Now Consumers

Google Express is a fast-growing customer shopper service. Originally available with just a few retailers in just a few cities, it has rapidly expanded to about 50 retailers more than a dozen cities. It also collaborates with Walmart.com for deliveries across the nation. Customers can order effortlessly for same day or next day deliveries. Ryan will describe capabilities needed to provide this convenience and the responsiveness at low cost. He will also discuss the challenges faced as Google Express grows this service.

LARRY P. SMITH

Supply Chain Integration of Large Mergers and Acquisitions

Becton, Dickinson and Company (BD) is a global medical technology company that produces innovative products for improving diagnosis and delivery of health care. Its recent acquisitions have resulted in a significant increase in revenue. After outlining how health care supply chains differ from the supply chains of other products, Larry P. Smith will describe the unique challenges that need to be addressed for achieving synergies across the supply chains of the merged companies. While a successful integration can reduce costs and improve revenue, an ineffective integration can have a disastrous effect on customer service and responsiveness. Specific questions he will consider include the degree, span, sequence, and speed of integration.

ABOUT THE POSTER COMPETITION

Graduate and undergraduate students were able to explore their areas of interest in supply chain management through the Poster Session.

The Poster Competition will be held at Noon in the Carnegie Room of the University Club. Additionally, there will be an exclusive meeting between the judges and the poster competition participants in the afternoon. Attendees are invited to visit the poster competition after lunch.

| UNDERGRADUATE DIVISION | | | |
|--------------------------------|--|--|--|
| Team | Poster Title | | |
| Samson Cassel Nucci | How Supply Chain Management is Transforming the Idea of an International Program/Study Abroad Experience | | |
| Lauren Kelly | Curing the Inefficiencies of the Healthcare Supply Chain | | |
| Teresa Leatherow | Operations Management Model: Integration of the Triple Bottom Line and Block Chain Technology | | |
| Dina Perlic Megan McCormick | Facing the Storm: Humanitarian Logistics of Hurricane Maria | | |
| Harly Stuyvesant | Stop Wasting Time, There are Loads to Deliver (Autonomous Transportation) | | |

| GRADUATE DIVISION | | | |
|---|--|--|--|
| Team | Poster Title | | |
| Ankur Arora Karl George Freithaler Deepak Singh | Blockchain for Supply Chain | | |
| Yu Tzu Chang Zhixiang Sheng | The Human-less, Robotic Supply Chain: Pipe Dream or Reality | | |
| Di Cui | E-Waste Recycling: A Potential Gold Mine | | |
| Terri White | Keep On Truckin'?: The Affect of Autonomous Vehicles on the American Trucking Industry | | |

JUDGES

UNDERGRADUATE DIVISION

Jan Dudiak | Chief Procurement Officer and Vice President, Westinghouse

Tonya Jackson | Senior Vice President and Chief Supply Chain Officer, Lexmark International

Jim Szilagy | President and CEO, Pensiamo

PRIZES

GRADUATE POSTER ENTRIES

- \$750 for First Place
- \$400 for Second Place
- \$250 for Third Place

UNDERGRADUATE POSTER ENTRIES

- \$600 for First Place
- \$300 for Second Place
- \$200 for Third Place

GRADUATE DIVISION

Tom Balzer | Senior Vice President and Head of Supply Chain Center NAFTA, Covestro LLC

Steve Myers | Vice President, Operations, FedEx Ground

Suzanne Valentine | Distinguished Engineer and Chief Data Scientist, IBM Watson Customer Engagement, IBM

Many thanks to our judges for their assistance in judging our poster competition.

Thank you to our supporters and sponsors

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Event Sponsors and Supporters



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Pitt Business Business Analytics and Operations Area



SPECIAL THANKS TO:

Brian Baskin (The Wall Street Journal) for moderating the sessions.

Lisa Scales, President and CEO, Greater Pittsburgh Community Food Bank, and **Meredith Williams**, Director of Solution Design, DHL Supply Chain, for the speaker introductions.

The Breakfast Speaker Series Planning Committee

Joe Hurley, Senior Vice President, Supply Chain, and **Ann-Marie Daugherty**, Vice President, Logistics, for arranging the tour of Giant Eagle's Distribution Center.

The Center is also grateful for the support of its Corporate Advisory Board and Faculty Board.

The Center has been established with funding from GENCO, and its (former) Executive Chairman, Herb Shear.

Mark Your Calendar

UPCOMING BREAKFAST SPEAKER SERIES

- Friday, February 23, 2018
 Ryan P. Kelly | Senior Vice President, Sales, Strategy, and Communications | FedEx Supply Chain
- Friday, April 6, 2018
 Jan G. Dudiak | Chief Procurement Officer
 and Vice President | Westinghouse Electric



The Katz School is a **Top 20**Graduate Supply Chain Management Program
(Gartner, 2016)

Get Involved

Center for Supply Chain Management

Prakash Mirchandani, Director Eric Paljug, Associate Director Janice Trygar, Program Manager

Email: scmcenter@katz.pitt.edu Phone: 412-648-1602

www.business.pitt.edu/katz/scm

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