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# JOHN R. MACDONALD

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## Office Address:

Assistant Professor of Supply Chain Management  
Broad College of Business  
Michigan State University  
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## EDUCATION

**University of Maryland, College Park, Maryland** (Aug. 2004 – Dec. 2008)

Ph.D., Logistics and Transportation

Minor: Operations Management with Strategy component

**Iowa State University, Ames, Iowa**

B.S., Transportation and Logistics, Fall 1999

B.S., Management of Information Systems, Fall 1999

German Minor

Graduated with *Distinction* (3.5 minimum) and *Honors Curriculum*

## RESEARCH STREAMS AND INTERESTS

- Supply Chain Resilience, Risk, and Disruption Management (*Resilience stream*)
- Behavioral Operations and Decision Making in the Supply Chain (*BOps stream*)
- Supply Chain Relationships, Strategy, 3PL's, Motor Carriers (*minor streams of interest*)

## REFEREED JOURNAL PUBLICATIONS

Melnyk, S.E., Zobel, C., Macdonald, J.R., and Griffis, S.E. (2014) "Making Sense of Transient Responses in Simulation Studies," *International Journal of Production Research*, Vol. 52, No. 3, pg. 617-632 (*Resilience stream*)

Macdonald, J.R., Frommer, I., and Karaesmen, I. (2013) "Decision Making in the Beer Game and Supply Chain Performance," *Operations Management Research*, Vol. 6, No. 3, pg. 119-126 (*BOps stream*)

Macdonald, J.R., and Corsi, T.M. (2013) "Supply Chain Disruption Management: Severe Events, Recovery, and Performance," *Journal of Business Logistics*, Vol. 34, No. 4, pg. 270-288 (*Resilience stream*)

Porterfield, T.E., Macdonald, J.R., and Griffis, S.E. (2012) "An Exploration of the Relational Effects of Supply Chain Disruptions," *Transportation Journal*, Vol. 51, No. 4, Fall (*Resilience stream*)

Cantor, D.E., Macdonald, J.R., and Crum, M. (2011) "Commercial Driver Retention: The Influence of Workplace Justice Perceptions," *Journal of Business Logistics*, Vol. 32, No. 3, pg. 274 (*BOps stream*)

Cantor, D.E. and Macdonald, J.R. (2009) "Decision Making in the Supply Chain: Examining Problem Solving Approaches and Information Availability," *Journal of Operations Management*, Vol. 27, No. 3, pg. 220 (*BOps stream*)

Corsi, T.M., Boyson, S., Verbraeck, A., Van Houten, S-P., Han, C., and Macdonald, J.R. (2006) "The Real Time Global Supply Chain Game: New Educational Tool for Developing Supply Chain Management Professionals," *Transportation Journal*, Vol. 45, No. 3, Summer (*BOps stream*)

## RESEARCH PAPERS INVITED FOR REVISION AND RESUBMISSION

Paper #1: Macdonald, J.R., Porterfield, T.E., and Griffis, S.E. Submitted to: *Journal of Business Logistics*. Invited for 2<sup>nd</sup> round review. Topic: Supply Chain Disruptions (*Resilience stream*)

## RESEARCH PAPERS UNDER REVIEW

Paper #1: Macdonald, J.R., Zobel, C., Melnyk, S.E., and Griffis, S.E. Submitted to: *Decision Sciences*. Under 1<sup>st</sup> review. Topic: Supply Chain Disruptions (*Resilience stream*)

Paper #2: Bode, C., and Macdonald J.R. Submitted to: *Decision Sciences*. Under 1<sup>st</sup> review. Topic: Supply Chain Disruptions (*Resilience stream*)

\*\*Titles withheld

## WORKING PAPERS AND RESEARCH IN PROGRESS

Paper #1: Macdonald, J.R., Griffis, S.E., Porterfield, T.E. Journal Target: *Transportation Journal*. Stream: Supply Chain Resilience. Submission Goal: July, 2015

Paper #2: Macdonald, J.R., Closs, D., and Calantone, R. Journal Target: *Journal of Business Logistics*. Topic: Logistics Expenditures. Submission Goal: July, 2015

Paper #3: Macdonald, J.R., and Bode, C. Journal Target: *Journal of Operations Management*. Stream: Supply Chain Resilience. Submission Goal: Fall, 2015

Paper #4: Macdonald, J.R., Griffis, S.E., Melnyk, S.A., Zobel, C. Journal Target: *International Journal of Production Research*. Stream: Supply Chain Resilience. Submission Goal: Fall, 2015

## RESEARCH GRANTS AND FUNDING

Broad College of Business Summer Research Grant - \$10,000 to fund research in supply chain resilience (2014)

Broad College of Business Summer Research Grant - \$8378 to fund research in behavioral operations (2013)

Air Force Institute of Technology - \$8000 funded to support research in supply chain resilience (2012)

Broad College of Business Summer Research Grant - \$9500 to fund research in supply chain resilience (2012)

Center for Packaging Innovation and Sustainability - \$57,656 (Macdonald portion: \$3738) to fund research in sustainability of returnable packaging systems (2011-12)

UTi Worldwide Group - \$2750 funded to support research in supply chain resilience (2010)

## **PRACTITIONER-DIRECTED PUBLICATIONS**

Melnyk, S.E., Closs, D.J., Griffis, S.E., Zobel, C.W., and Macdonald, J.R. "Understanding Supply Chain Resilience." *Supply Chain Management Review*, January/February 2014, p. 34

Precord, R., and Macdonald, J.R. "Rocket-Blast, LLC: The Trade-offs of Logistics Cost and Performance Options." Published as CSCMP Mini-Case. (2011)

Boyson, S., Han, C., and Macdonald, J.R. (2010). Supply Chain Network Design for Volatility. In Harrington, L., Boyson, S., and Corsi, T. (eds) *X-SCM: The New Science of X-treme Supply Chain Management*.

Melnyk, S.E., Cooper, M.B., Griffis, S.E., Macdonald, J.R., and Phillips, C. "Supplier Base Management: A New Competitive Edge." *Supply Chain Management Review*, July/August 2010, p. 35

Macdonald, J. R. and Sakai, K. "DSM Manufacturing: When Network Analysis Meets Business Reality." Published as CSCMP Case Study. (2008)

## **EXECUTIVE EDUCATION**

Logistics Seminar: 2009 – Current. Topics: Outsourcing and Warehouse Management

Rail Management Program: 2012 - Current. Topic: Intermodal Transportation

SP Jain (Indian MBA Exchange): 2012 - 2014. Topics: Transportation Management and Warehouse Management

West Michigan Certificate Series: 2009 - Current. Topic: Warehouse Management

## **KEY CORPORATE INVOLVEMENT AND RELATIONSHIPS**

*(selected)*

Facilitator, Strategic Supply Chain Planning Session. John Deere. Summer 2015.

Abbott, Boeing, Capital Region Airport Authority, Cisco, ConAgra, Department of Homeland Security, Dow Corning, Exel, General Mills, General Motors, Hess, Honeywell, J.B. Hunt, John Deere, Legrand, Marten Transportation, Meijer, Ryder, TTX, United States Air Force, UTi Worldwide\*

\*Companies listed in alphabetical order

## **INVITED PRESENTATIONS AND PANEL DISCUSSIONS**

"Warehouse Management", presentation to Parcel Forum Annual Conference. Dallas, TX, Sept. 2014

"Supply Chain Disruptions: How to be prepared and how to face them", invited presentation to Supply Chain and Logistics International Symposium. Bogota, Colombia, August 2014

“Supply Chain Relationships and Resilience”, invited presentation to John Deere Logistics Partner Council Meeting. Moline, IL, June 2014

“Transportation and Logistics”, panel discussant at *Accelerating Supply Chain and Logistics Innovation Symposium*, presented by University Research Corridor and Business Leaders of Michigan. East Lansing, MI, March 2014

“Getting Noticed on Paper”, presented to Young Professionals track at the 2013 Council of Supply Chain Management Professionals (CSCMP) Annual conference. Denver, CO, October 2013

“Understanding Risk and Disruption Management”, presented to University of Maryland doctoral program. College Park, MD, April 2013

“The Effect of Disruptions on B2B Relationships”, presented to Primary Logistics Partnership Meeting through UTi Worldwide, Budapest, Hungary, November 2011

“3PL’s Role as a Supply Chain Orchestrator During Disruption Recovery”, presented to Global Client Growth Leadership Team, UTi Worldwide, Philadelphia, Pennsylvania, October 2011

“The Tenure Clock”, presented to Annual Logistics Doctoral Consortium, University of Tennessee, Knoxville, April 2011

Keynote Address: “Decision Making in the Supply Chain: Examining Problem Solving Approaches and Information Availability”, presented to Annual Ontario Institute of Purchasing Managers Association of Canada conference. Ottawa, Canada, October 2009

“Leadership of the Supply Chain”, presented to MSU Supply Chain Council, October 2009

“The First Year Out”, presented to Annual Logistics Doctoral Consortium, Michigan State University, March 2009

“Leadership of the Supply Chain”, presented to SCMA Leadership Retreat, February 2009

## CONFERENCE PROCEEDINGS

Zobel, C., Melnyk, S., Griffis, S., and Macdonald, J. “Characterizing Disaster Resistance and Recovery using Outlier Detection,” Information Systems for Crisis Response and Management (ISCRAM) 2012, Vancouver, British Columbia. *May 2012*

Porterfield, T. and Macdonald, J. “The Relational Effects of Supply Chain Disruptions,” Northeast Decision Sciences Institute 2009, Uncasville, CT.

## PRESENTED WORK

*(as presenter; author order not reflective of final publication order)*

Macdonald, J.R., Bode, C. “Supply Chain Disruptions”. POMS. Washington, DC. May 2015

Macdonald, J.R., Melnyk, S.A., Zobel, C., and Griffis, S.E. “The Development of a Time-series Experimental Design”. ISCRiM Conference. University of North Texas. Denton, TX. October 2011

Macdonald, J.R., Goulding, P., and Campbell, A. "The Impact of Supply Chain Disruptions on 3PL Partner Relationships". Presented with Estee Lauder and UTi Worldwide. CSCMP Conference, Philadelphia, PA. October 2011

Macdonald, J.R., Melnyk, S.A. "Blended Outcome Enterprises". AOM, San Antonio, TX. August 2011

Macdonald, J. R., Zacharia, Z. "The Impact of Disruptions on Supply Chain Strategy and Performance". BOPS, Syracuse, NY. June 2009

Macdonald, J. R., Corsi, T. "Impact of a Disruption on Supply Chain Strategy and Performance". INFORMS, Seattle, WA. November 2007

Macdonald, J.R., Frommer, I, and Karaesmen, I. "Practical Implications of Chaos in Supply Chains". POMS, Dallas, TX, May 2007

Macdonald, J.R., Cantor, D.E., "Decision-Making in the Supply Chain: The Impact of Cognitive Thinking Styles and Problem Complexity". INFORMS, Pittsburgh, PA, November 2006

Macdonald, J.R., "Does Investment in Technology Resources Affect Motor Carrier Firm Performance?" Transportation Research Forum, New York, NY, March 2006

## WORK PRESENTED

*(presenter underlined; author order not reflective of final publication order)*

Macdonald, J.R., Melnyk, S.A., Zobel, C., and Griffis, S.E. "Understanding Supply Chain Shocks and Resilience: Theory-building through Experimental Based Simulation". POMS. Washington, DC. May 2015

Macdonald, J.R., Melnyk, S.A., Griffis, S.E., and Zobel, C. "Towards an Operational Definition of Resiliency". POMS. Denver, CO. May 2013

Macdonald, J.R., Melnyk, S.A., Zobel, C., and Griffis, S.E. "Characterizing Disaster Resistance and Recovery Using Outlier Detection". ISCRAM (International Conference on Information Systems and Crisis Response and Management). Vancouver, B.C. April 2012

Macdonald, J.R., Melnyk, S.A., Zobel, C., and Griffis, S.E. "Experimental Time Series Analysis: Bringing Experimental Design to the Study of Time Series". DSI. Boston, MA. November 2011

Macdonald, J. R., Zacharia, Z., "The Impact of Disruptions on Supply Chain Strategy and Performance". DSI, New Orleans, LA. November 2009

## ACADEMIC SERVICE

- Panelist for Bowersox Doctoral Symposium, CSCMP Annual Conference, 2014
- Track Chair for *Resilience: Managing Risk and Disruptions*, CSCMP Annual Conference, 2013
- Track Chair, Educators Conference (SCMEC), CSCMP, 2011
- Session Chair, Educators Conference (SCMEC), CSCMP, 2011
- CSCMP Subject Matter Expert, SCPro Certificate Design Team, 2011
- Seminar Coordinator, Department of Logistics, Business, & Public Policy, Smith School of Business, 2006-07
- Session Chair: POMS, 2007

- Editorial Review Board: Journal of Operations Management
- Ongoing Ad-hoc reviewer: Journal of Business Logistics, Transportation Journal, CSCMP Case Study Series, Academy of Management Conference, International Journal of Production Research, International Journal of Physical Distribution and Logistics Management, Transportation Research: Part E, and Decision Sciences Journal

## AWARDS AND HONORS

- 2008 Krowe Award for Teaching Excellence – University of Maryland, College Park  
2001 Teaching Excellence Recognition – University of Iowa, Iowa City

## DIRECTED MASTER’S THESES

### *Completed*

- Stephen Dostie (Coyote Logistics): “Utilizing a Loyalty Program at a Third-Party Logistics Company.” Completed 2015
- Janelle Wilhelm (Whirlpool): “Foreign Trade Zones: Impact on Cost Reduction in the Global Supply Chain.” Completed 2014
- Julian Lopez (Mondelez): “Methodology to Identify and Prioritize Logistics Cost Reduction Projects in a Consumer Products Company.” Completed 2014
- David Sprock (UPS): “Determining Solutions to Combat [Car Hauler] Capacity Constraints.” Completed 2013
- George Lovequist (Amway): “Short Line Rail in West Michigan: Is it Still a Viable Transportation Option for West Michigan Companies?” Completed 2012
- Ronald Tan (City-Link Express): “Franchising in the Courier Industry.” Completed 2010

### *In Process*

- Mitch Garrison (Union Pacific): Topic TBA.

## TEACHING EXPERIENCE

**Michigan State University: Supply Chain Management Department,**  
East Lansing, MI (January 2009 – Current)

### *Graduate Level*

SCM 932: Logistics Policy, Guest Lecturer (Fall 2011, Fall 2013)

- Presented and led Ph.D. class discussion on topic of supply chain risk and disruptions

SCM 876: Logistics Operations Methods and Systems (Spring 2010 – Spring 2015):

- Class purpose to understand:
  - Transportation management;
  - Warehouse and distribution center operations;
  - Third-party logistics providers; and
  - Integrated logistics network design and strategy

*Undergraduate Level*

SCM 373: Logistics and Transportation Management (Spring 2009 - Current):

- Class purpose to understand:
  - Transportation management;
  - Risk / disruption / security management;
  - Warehouse and distribution center operations; and
  - Integrated logistics network design and strategy

PKG 475: Packaging Economics, Guest Lecturer (Spring 2014-current):

- Presented and led class discussion on the economics of logistics

**University of Maryland – College Park: Logistics, Business and Public Policy Department,**  
College Park, Maryland (August 2004 - December 2008)

*Undergraduate Level*

BMGT 476: Advanced Supply Chain Management (Spring 2007):

- Class purpose to understand tactical and operational management of supply chains with advanced software systems that build on top of ERP (enterprise resource planning) systems
- Emphasized issues related to creation of end-user value through supply chain cost reductions and / or service improvements
- Provided students hands-on experience with major ERP software in use by major companies – Oracle and SAP Advanced Planning and Optimization
- Ratings of 4.45 and 4.27 / 5

*Undergraduate Teaching Assistant*

BMGT 475: Advanced Supply Chain Management Strategy and Technologies:

- Implemented, configured, and supported faculty, teaching assistant and undergraduate student use of CAPS Logistics Software. (Fall 2005 – Fall 2006)
- Initiated and drove project to transition class from using CAPS to i2 Supply Chain Strategist (Fall 2006)

**University of Iowa: Dept. of Management Sciences, Iowa City, Iowa (August 2001-May 2002)**

*Undergraduate Teaching Assistant*

6K:70: Computer Analysis

- Taught two classes of Computer Analysis course (MSWord, Excel, Access, FrontPage, ASP)
- Responsible for creating and communicating of projects, also grading students' assignments
- Received Teaching Excellence Recognition for high TA ratings

**DISSERTATION**

Title: Supply Chain Disruptions: A Conceptual Framework and Towards a Theory on Decision Making

Committee Chair: Dr. Thomas M. Corsi

Members: Dr. Curt Grimm, Dr. Phil Evers, Dr. Sandor Boyson, Dr. Jennifer Blackhurst, Dr. Paul Schonfeld

Severe supply chain disruptions have a great impact on the firm. They can cause loss of sales to customers and lead to changes in the design and strategy of the supply chain. This research works focuses on supply chain disruption management. It presents an overall conceptual framework and a theoretical model, highlighting the decision making process of disruption recovery. First, the literature concepts surrounding supply chain disruptions – risk

management, mitigation, crisis management, supply chain resilience, supply chain security, business continuity planning, and sustainability – are defined and differentiated, since these concepts often have overlapping factors that can cause confusion. After defining each of these concepts and the latest research findings, a framework for understanding the relationships among the concepts is developed. Second, this framework reveals a gap in the literature surrounding the disruption recovery and decision making process. While an initial disruption management model can be built using factors from the literature, data are collected by conducting multiple interviews and analyzed using a structured grounded theory methodology to produce a more complete model. This also has the effect of building theory from which propositions are developed surrounding discovery of the disruption, recovery team composition, decision-making, and others. These propositions can be tested empirically in future research.

## DOCTORAL CONSORTIA

Selected to participate in the Decision Sciences Institute 25th annual Doctoral Consortium, Phoenix, AZ, November 2007

Selected to participate in the Council of Supply Chain Management Professionals annual Logistics Doctoral Symposium, Philadelphia, PA, October 2007

Selected to participate in the Academy of Management – OM Division annual Doctoral Symposium, Philadelphia, PA, August 2007

Selected to participate in the Production and Operations Management annual Doctoral Symposium, Dallas, TX, May 2007

## TECHNICAL SKILLS

*Supply Chain Software:* IBM LogicNet, i2 Supply Chain Strategist – Transportation Bid Collaborator – Transport Modeler, CAPS TransPro – RoutePro – Supply Chain Designer, Oracle Advanced Supply Chain Planning ERP Module

## CONSULTING WORK EXPERIENCE

**UTi Worldwide Group**, Long Beach, CA, USA (May 2005 – December 2008)

Senior Consultant, Supply Chain Design & Innovation

- Use i2 Supply Chain Strategist and Transportation Modeler to perform strategic supply chain analyses for global customers of UTi Worldwide
- Analyses include: import/export trade lanes, manufacturing and warehouse locations, transport mode use and utilization, foreign trade zone recommendation, and transportation routing
- Provide support for internal strategic initiatives through research, presentations, and recommendations

## INTERNATIONAL WORK EXPERIENCE

**UTi Worldwide Pte. Ltd.**, Singapore (December 2003 – July 2004)

Supply Chain Solutions Architect – Asia Pacific

- Traveled to various Asian countries to perform tasks and job duties (Sri Lanka, Hong Kong, Malaysia)
- Self-taught i2 suite of products to use for supply chain analysis
- Process mapped and analyzed supply chains for customers to streamline and make efficiency recommendations which included warehouse capacity analysis, fleet management and delivery schedules, production schedules, import requirements, and labor usage
- Coordinated and led team to implement process changes for customer in Malaysia
- Assessed software requirements for 4PL role of carrier bidding in India
- Provided analysis and solution on warehouse IT solutions schedules in Sri Lanka

**Naigai Nitto Pte. Ltd.,** Singapore (August 2002 – December 2003)

Assistant Manager for Japanese freight forwarding firm

- Collaborated and worked with team for ISO 9000 re-certification process
- Created Logistics Training program, obtained OJT (On-the-job-training) Certification for company, and provided training to staff
- Created Intranet for company to promote company policies and objectives
- Worked to promote the use of VMI, SCM, and RFID with our customers
- Aggressively pursued sales with companies outside of normal clientele for future customer base
- Created and implemented company CARE program – including Recycling program
- Helped unify the management and promoted teamwork through communication programs

## WORK EXPERIENCE

**J. M. Swank,** North Liberty, Iowa (October 2000 – August 2001)

Regional Dispatcher and IT Analyst (both positions held simultaneously)

**RUAN Transportation Management,** Des Moines, Iowa (January 1999 – August 2000)

Logistics and IT Analyst

**LGI,** Ellsworth, Iowa (Summer 1998)

Traffic Coordinator

**Union Pacific Railroad,** Omaha, Nebraska (Spring 1997)

Operations Analyst

## PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

1997-Current	Member of Council of Supply Chain Management Professionals (CSCMP)
2006-2009	Member of INFORMS
2006-2007	Member of Transportation Research Forum (TRF)
2007-Current	Member of Production and Operations Management Society (POMS)
2007-2013	Member of Academy of Management (AOM)
2007-2009	Member of Decision Sciences Institute (DSI)

## COMMUNITY SERVICE

2002-2004	<i>Leader,</i> Central Christian Church Preteen Ministry
1998-2002	<i>Leader, Co-Leader,</i> Campus Advance Ministry Group
1996-Current	HOPE Worldwide Volunteer

*updated 07/15*