2014-2015 Faculty Grant for International Connections
Developing Ties Between Lehigh University and 2 Top Indian Universities
Zach G. Zacharia, Associate Professor, Management Department, CBE

Abstract
This project seeks to develop research collaborations with faculty in two premier research institutions in India, Indian Institute of Management, Bangalore (IIMB) and Indian Institute of Technology, Madras (IITM). Funding will be used for travel to Bangalore and Chennai to meet with management faculty to identify common areas of research interest in supply chain management (SCM). In addition I hope to take Lehigh University undergraduates and graduate students to India as part of an immersion program to expose them to SCM practices in an emerging economy. The long-term goal is to develop stronger ties between our institutions, to develop capabilities in doing international research and to provide student-learning experiences in an emerging economy.

Background, Basis for Collaboration
Supply chain management, a term first coined by Keith Oliver in a 1982 Financial Times article (Laseter & Oliver 1982) is a relatively new field with no overarching and unifying theory of SCM, no consensus definition and even little agreement on the primary functions responsible for SCM (Zacharia et al., forthcoming). This has meant there are many basic research questions in SCM that have not been answered which led to my first Journal of Operations Management (JOM) paper (Lanier et al. 2010) that examined what is the actual value at the firm level of being in a supply chain and how is that value allocated across firms in the supply chain? Another basic research question, what are the capabilities to facilitate collaboration across firms, a basic competency in SCM, led to my second JOM paper (Zacharia et al. 2011).

SCM research questions such as at what firm size does SCM become more costly than beneficial and for SCM to be effective is a well-developed infrastructure (transportation, information, electrical power, etc.) necessary have still not been answered. These basic research questions are a lot easier to study in an emerging economy where SCM is just becoming widely practiced. In addition, much of my research has been empirical; requiring managers to answer surveys which has become increasingly more difficult here in the US. In preliminary discussions with IIMB and IITM research faculty they noted a greater willingness of Indian firms to participate in these types of research studies especially when responding to requests from faculty at these top schools.

Undergraduate and Graduate students from Lehigh University would benefit from understanding the opportunities and challenges of doing business outside of North America. Being able to explore the drivers of globalization and managing the supply and demand fulfillment processes across an extended and global organization will enable our students to become “globally literate”. Developing strong relationships with IIMB and IITM faculty will help in identifying companies to visit to illustrate the different SCM standards, practices and structures of India owned enterprises, foreign invested enterprises, multinational corporations.
**Professional and Personal Goals for the visit**

At a professional level the goal of this visit is to establish a long-term collaboration between IIMB faculty and between IITM faculty in terms of both joint research projects and Lehigh University student trips. On a personal level my goal is to develop research relationships that will help me in doing basic SCM research and to help students learn more about emerging economies. By gaining access to databases and company data that are otherwise very difficult to obtain and by collaborating with top research faculty I hope to enhance my reputation as an international SCM scholar. Finally this visit will help establish educational and research relationships in India that are beneficial to the College of Business and Economics and Lehigh University for the long-term.

**Expected Outcomes**

During this initial visit, the focus is on identifying SCM research projects that would be of joint interest and to identify interesting companies for Lehigh students to visit and learn about SCM in emerging economies. Additionally I hope to meet with IIMB and IITM administrators and students to encourage them to consider Lehigh University graduate programs. In the long term it is hoped these research collaborations will lead to publications in top tier SCM journals, to establish unique learning opportunities for Lehigh students and to attract top international graduate students to study at Lehigh.

**Pre-trip Planning and Preparation**

Professor Chetan Subramanian from the Office of International Affairs in IIMB has indicated in a letter attached, he will help coordinate my visit with faculty at IIMB. Professor R. Nagarajan, Dean, International and Alumni Relations IITM has indicated in the letter attached, he will help coordinate my visit with faculty at IITM. I have also attached e-mails from IIMB Professors Usha Mohan and Rahul Marathe and IITM Professors Devanath Tirupati. I plan to stay one week in a hotel in Bangalore close to IIMB and one week in a hotel in Chennai close to IITM.

**Follow-up**

Upon my return, I will write up the results of my visit and speak about my experience with faculty and others interested in international collaboration. I plan to organize a student trip to India and look for learning opportunities for Lehigh students in India.

**Proposed Budget for 2 weeks over 2014-2015 Winter Break**

State Department Max Rate is $474 for Bangalore and $411 for Chennai but there are lower cost options for lodging so estimate $250/day. Air travel and lodging estimates from Kayak.com

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Dr. Zach G. Zacharia, Ph.D.

Associate Professor Supply Chain Management

Lehigh University

Dear Prof. Dr. 'Zach', Zacharia

Sub: Invitation to explore academic exchange and research collaboration in Supply Chain Management between Lehigh University and Indian Institute of Management Bangalore (IIMB)

We are happy to learn about your interest in exploring academic exchange and identification of collaborative research studies by the faculty and students of our Universities/Institutes.

We would like to invite you to our Institute for holding discussions with our faculty specializing in Strategic Sourcing and Supply Chain Management to explore and identify potential areas for academic collaboration and joint research in global supply chain management.

We would of course be delighted if you can time your visit to attend the Biennial Supply Chain Management Conference being held at our Institute on 18-19 December 2014.

We look forward to your visit to our Institute.

Thanking you,

Sincerely,

(Prof. Chetan Subramanian)

Office of International Affairs

Indian Institute of Management Bangalore

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Date: Mar 07, 2014

Prof. Zach G. Zacharia, Ph.D.
Associate Professor,
Supply Chain Management
Lehigh University
Bethlehem, PA, USA

Dear Prof. Zachariah,

Sub: Letter of invitation

It is my pleasure to invite you to visit IIT Madras in January 2015 and meet with our faculty specializing in supply chain management to explore and identify potential areas for academic collaboration and joint research. Earlier discussions that Profs. Usha Mohan and Rahul Marathe in our Department of Management Studies have had with you indicate that there are several areas of shared research interest.

I also look forward to meeting with you, and explore opportunities to promote institutional collaborations.

With regards....

Prof. R. Nagarajan
Department of Chemical Engineering
Dean, International & Alumni Relations
IIT Madras
Visiting IIM Madras

Usha Mohan <ushamohan@iitm.ac.in>                         Thu, Feb 27, 2014 at 8:58 AM
To: Zach Zacharia <zgz208@lehigh.edu>

Dear Professor Zacharia

This is in continuation of the telephone conversation we had earlier in the day.

I see that we do have common interests in the domain of supply chain management: working on food supply chains and supply chain disruptions to mention a few. I also see that we could collaborate on some interesting work.

I invite you to our department to discuss on how we can take this further and establish a long term research collaboration.

Regards,
Usha

Usha Mohan
Associate Professor
Department of Management Studies
IIT Madras, Chennai: 600036
Mobile: +91 96000 56836

From: Zach Zacharia [zgz208@lehigh.edu]
Sent: Thursday, February 27, 2014 1:01 AM
To: Usha Mohan
Subject: Visiting IIM Madras

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2013.0.3462 / Virus Database: 3705/7126 - Release Date: 02/26/14
Visiting IIM Madras

Rahul Marathe <rrmarathe@iitm.ac.in>  
To: Zach Zacharia <zgz208@lehigh.edu>

Mon, Mar 3, 2014 at 11:43 PM

Dear Zach,
It was a pleasure talking to you yesterday over phone. I am impressed with your research interests and insights that you've highlighted in your publication. I, and my colleagues at Department of Management Studies IIT Madras, would be delighted to interact with you personally. Please do consider visiting us. We extend you a warm invitation to spend time with the operations group. We surely are interested in exploring areas of common research interests, and writing academic journal articles.

Thanks and regards,
Rahul

Rahul R. Marathe
Associate Professor
Department of Management Studies
Indian Institute of Technology Madras
Chennai 600036 India.
Office Phone: +91 442 257 4579.
URL: www.doms.iitm.ac.in/rahul.htm

From: Zach Zacharia [zgz208@lehigh.edu]
Sent: Friday, February 28, 2014 7:36 PM
To: Rahul Marathe
Subject: Re: Visiting IIM Madras

[Quoted text hidden]
Visiting IIM Bangalore

Devanath Tirupati <devanath@iimb.ernet.in>
To: Zach Zacharia <zgz208@lehigh.edu>

Fri, Mar 7, 2014 at 12:19 AM

Dear Zach,

First, thank you for your interest in considering IIMB as a potential host for your research in India. As you may be aware, we do have a Center for Supply Chain Management and there is good chance of overlapping interests with some of our faculty. In that case it should be mutually beneficial and we would be happy to host you here at IIMB.

At this point I would suggest that you could write to some of our faculty directly and explore avenues for joint work. Given your background and interests, Professors Haritha Saranga and Anshuman Tripathy may be a good starting point. In the meantime I will circulate your CV to a larger group of faculty.

If you have any other concerns, please let me know.

From: Zach Zacharia <zgz208@lehigh.edu>
Sent: Sunday, March 2, 2014 2:15 AM
To: Devanath Tirupati
Subject: Visiting IIM Bangalore

[Quoted text hidden]

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**Foreign Per Diem Rates In U.S. Dollars**

**Country:** INDIA  
**Publication Date:** 03/01/2014

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A.

**Biographical Information**

Zach G. Zacharia, Ph.D.
Associate Professor Supply Chain Management
Department of Management, College of Business Administration and Economics
Lehigh University, 621 Taylor Street, Bethlehem, PA, 18015
Office: (610) 758-4433, Fax: (610) 758-6941
zacharia@lehigh.edu

**EDUCATION**

1996 - 2001 **THE UNIVERSITY OF TENNESSEE**

*Knoxville, TN*

*Doctor of Philosophy in Business Administration*
- Major: Logistics, Minor: Marketing

1988 – 1993 **THE UNIVERSITY OF ALBERTA**

*Edmonton, AB*

*Master of Business Administration*

1981 - 1985 **THE UNIVERSITY OF CALGARY**

*Calgary, AB*

*Bachelor of Science, Mechanical Engineering*

1980 - 1981 **RED DEER COLLEGE**

*Red Deer, AB*

*Bachelor of Science*

1979 – 1980 **THE UNIVERSITY OF ALBERTA**

*Edmonton, AB*

*Bachelor of Science*

**WORK EXPERIENCE SUMMARY**

2013 – Present Associate Professor – Lehigh University
2008 – 2013 Assistant Professor – Lehigh University
2001 – 2008 Assistant Professor - Texas Christian University
1999 – 2001 Associate Director – Transportation Center, University of Tennessee
1997 – 1999 Assistant Director - Transportation Center, University of Tennessee
1995 – 1997 Senior Research Associate – University of Tennessee
1985 – 1989 Equipment Engineer – Alberta Transportation & Utilities

**CONSULTING PROJECTS**

2012 Supply Chain Management Simulation, WAM Systems, Philadelphia
2010 Supply Chain Management Overview, Universidad de Piura, Peru
2007 Procurement of Capability Guidelines, Lockheed Martin Aeronautics
2002 Truck Safety Recommendations, University of Tennessee
B. Publications and Creative Activities

BOOK CHAPTERS

EDITORSHIPS

REFEREED PUBLICATIONS

Business Journals


**Engineering Journals**


**NON - REFEREED PUBLICATIONS**


**REFEREED CONFERENCE PROCEEDINGS**


WORKING PAPERS

• “When Should New Product Development Managers Consider Distribution Logistics?” This paper is targeted to Transportation Journal.

• “The Role of Supplier Satisfaction in Enhancing Outcomes of a Buyer Supplier Relationship” with Robert J. Trent from Lehigh University and Scott Ellis from University of Kentucky. This paper is targeted to the Journal of Operation Management.

• “Buyer Supplier Integration and Coordination in the Context of Outsourcing vs. Vertical Integration” with Xiang Wan from Marquette University This paper is targeted to the Journal of Operation Management.

• “Social and Local: Fostering Commitment in Community Supported Agriculture” with Catherine M. Ridings from Lehigh University and Brian Butler from the University of Pittsburgh. This paper is targeted to Management Information Systems Quarterly.

• “Operational vs. Behavioral Risk Planning: Is there a difference?” with John R. MacDonald from Michigan State University and Mei Li from Lehigh University. This paper is targeted to the Journal of Operations Management.
C. Honors and Awards

2013  Robert and Christine Staub Faculty Excellence Award (College of Business and Economics – Lehigh University)
2012  Member of the Journal of Supply Chain Management Editorial Board
2011  Best Paper Award (European DSI Conference)
2010-2011 Supply Chain Management Educator Conference Chair
2010  Member of the Journal of Operations Management Editorial Board
2010  Member of the Journal of Business Logistics Editorial Board
2009-2010 Supply Chain Management Educator Conference Proceedings Editor
2007-2008 Council of Supply Chain Management Case Editor
2007  Best Paper Award (NARTS-ISM Conference)
2006  Tied for highest SPOT (Student Perception of Teaching) score in INSC department
2005  Highest SPOT (Student Perception of Teaching) in INSC department
2000  Doctoral Dissertation Proposal Award (University of Arkansas)
2000  Outstanding Student Paper Award (Society for Marketing Advances)
2000  Finalist (ISBM Doctoral Dissertation Award)
1999, 1997 Scholarly Research Grant Recipient (University of Tennessee)

D. Research Funding

2011  Faculty Research Grant – Lehigh University (Principal Investigator), Catherine Ridings (Lehigh University) “Does investment in Supply Chain Management and Information Technology provide value for micro firms?” $4500
2009  Summer Research Grant – College of Business and Economics, Lehigh University (Principal Investigator), Nada R. Sanders (Lehigh University, Brian S. Fugate (Colorado State University) “State of Supply Chain Management: A Visionary Perspective” $3000
2002-2007  Charles Tandy American Enterprise Center Faculty Research Award (Texas Christian University) ($10,000)
2003, 05, 07  Junior Faculty Research Grant (Institute of Supply Management) ($750)
2005  Research Center for Teaching Excellence, Faculty Fellow Grant (Texas Christian University) ($2500)

F. Scholarly Presentations

• Zacharia, Zach G., “What are some of the Factors That Affect the Relationship Between Cross Functional New Product Development and New Product Project

Zach G. Zacharia, Ph.D. 6
Performance?” Decision Sciences Institute Conference, Boston, Massachusetts, November 22, 2011.


• **Zach G. Zacharia**, “Searching the Internet and Web Page Design” presented at University of Tennessee, Knoxville, Tennessee, April 17, 2000.


• **Zach G. Zacharia** and Barton R. Jennings "The Use of Active Participation and Group Competition to Facilitate Training and Technology Transfer for Adult Learners" Transportation Research Board Conference, Washington, District of Columbia, January 10-14, 1998.

• **Zach G. Zacharia**, "Training Requirements for Local Governments" presented at the National Transportation Training Conference, Reno, Nevada, October 7-9, 1997.


**G. Teaching and Research Advising**

**COURSES:**

Lehigh University (2008 – Present)
• SCM 186 - Supply Chain Management and Operations (Undergraduate 2008 – present)
- SCM 354 - Logistics and Transportation (Undergraduate 2008-present)
- GBUS 492- Supply Chain Management Strategy (Graduate 2010- present)
  (Summer Course)
- Advising 9 Supply Chain Management Majors (2012)
- Advising 10 Supply Chain Management Majors (2011)
- Advising 13 Supply Chain Management Majors (2010)
- Advising 6 Supply Chain Management Majors (2009)

Texas Christian University (2001 – 2008)
- Strategic Sourcing and Procurement (Professional MBA) 2007
- Business Simulation (Professional MBA) 2007
- Supply Chain Management Concepts (Full-Time MBA) 2005 – 2008
- Supply Chain Management Concepts (Professional MBA) 2001 – 2008
- Logistics and Transportation (Professional MBA) 2001 - 2008
- Supply Chain Tools and Technologies (Professional MBA) 2002
- Logistics and Transportation (Undergraduate) 2001 - 2008
- Supply Chain Management Concepts (Undergraduate) 2003 – 2004
- Supply Chain Tools and Technologies (Undergraduate) 2003
- Procurement and Supply Management (Undergraduate) 2003

University of Tennessee (1996-2001)
- Introduction to Transportation (Undergraduate) Summer 1998
- Introduction to Logistics (Undergraduate) Summer 1999
- Marketing Management (Undergraduate) Spring 2000
- Global Logistics and Transportation (Undergraduate) Summer 2000

H. SERVICE
College
- Undergraduate Core Curriculum Committee
- Math Committee to Assess Assessment Results

Department
- Research Seminar Committee
- SCM Club Faculty Liaison

Professional (Council of Supply Chain Management Professionals)
- President – Lehigh Valley Roundtable (2012-2013)
- Education Conference Chair (2010 – 2011)
- Education Strategies Committee Member (2007 – 3 year term)
- Case Editor (3 year term)
- President – Dallas Roundtable (2007-2008)
- Vice President – Dallas Roundtable (2006-2007)
- Member (1999 – onwards)