

BALARAMAN RAJAN	Address	Valley Business & Technology 326	
Associate Professor (Management)		Department of Management	
,		College of Business & Economics	
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### RESEARCH INTERESTS

Telemedicine; mHealth; Healthcare operations; Healthcare technology; Healthcare Supply Chain; Patient Scheduling; Capacity allocation;

# **CURRENT PROJECTS**

- Exploring incentives and role of reimbursement method for mHealth adoption by private clinics
- Predicting hospitalization at the time of admission using machine learning techniques

#### ACADEMIC EXPERIENCE

- Associate Professor in the Department of Management, California State University East Bay (2020 Present).
- Assistant Professor in the Department of Management, California State University East Bay (2014 2020).
- Course Instructor at Simon School of Business, University of Rochester (2011 2014)
- Research/Teaching Assistant at Simon School of Business, University of Rochester (2009 2014)
- Research Assistant at IIT Madras (India) (2008).

#### **EDUCATION**

- 2014 Ph.D. in Business Administration (Operations Management)
  Simon School of Business, University of Rochester, USA
  Dissertation title: Economics of Telemedicine Mode of Treatment for Chronic Conditions
  Advisors: Professors Abraham (Avi) Seidmann and Tolga Tezcan
- 2011 M.S. in Management Science Simon School of Business, University of Rochester, USA
- 2008 M.B.A. in Operations Management Indian Institute of Technology Madras, India
- 2006 B.E. (Mechanical Engineering)Sri Venkateswara College of Engineering, Anna University, India

#### JOURNAL PUBLICATIONS

- Dinesh R Pai, Balaraman Rajan, and Subhajit Chakraborty (2022). Do EHR and HIE deliver on their promise? Analysis of Pennsylvania acute care hospitals. *International Journal of Production Economics*: 108398. <a href="https://doi.org/10.1016/j.ijpe.2021.108398">https://doi.org/10.1016/j.ijpe.2021.108398</a>
- Saligrama Agnihothri, Leon Cui, Balaraman Rajan, Anu Banerjee, and Ramanujapuram Ramanujan (2021). Mobile health application usage and quality of care at a hypertension clinic: An observational cohort study. *Journal of Hypertension*. doi: 10.1097/HJH.0000000000002909
- Saligrama Agnihothri, Leon Cui, Mohammad Delasay, and Balaraman Rajan, The value of mHealth for managing chronic conditions (2020). *Health Care Management Science*, 23(2):185-202 https://doi.org/10.1007/s10729-018-9458-2



- Deborah Friedman, Balaraman Rajan and Abraham Seidmann, A Randomized Trial of Telemedicine for Migraine Management (2019). *Cephalalgia*, 39(12):1577-1585 https://doi.org/10.1177/0333102419868250
- Balaraman Rajan and N Ravichandran, Agile Auto Sub Assemblies: Challenges in Managing Growth, Resource Productivity and Demand Variability (2019). *INFORMS Transactions on Education*, 20 (1): 41-48
- Balaraman Rajan, Tolga Tezcan and Abraham Seidmann, Service systems with heterogeneous customers: Investigating the effect of telemedicine on patient care (2019). *Management Science*, 65(3):1236-67.
- Kimberly Reyes, Philip Cole-Regis, Sarah Berkin, Balaraman Rajan, and Surendra Sarnikar, Affordable Care Act (ACA): Impact on U.S. Emergency and Preventive healthcare (2018). *Journal of Supply Chain and Operations Management (JSCOM)*, 16(1).
- Balaraman Rajan and N Ravichandran, Tactical Decisions @ Vastrapur Car Rental Services (2017). *INFORMS Transactions on Education*, 18(1): 48-55.
- Balaraman Rajan and Vishwanath G. Hegde, Exploring Healthcare Supply Chain Structure Using Financial Ratios (2017). *Journal of Supply Chain and Operations Management (JSCOM)*, 15(1).
- Balaraman Rajan, Abraham Seidmann and Ray Dorsey, The competitive business impact of using telemedicine for the treatment of patients with chronic conditions (2013). *Journal of Management Information Systems*, 30(2): 127-157.
- Dorsey ER, Venkataraman V, Grana MJ, Bull MT, George BP, Boyd CM, Beck CA, Rajan B, Seidmann A, Biglan KM. Randomized controlled clinical trial of "virtual house calls" for Parkinson disease (2013). *The Journal of the American Medical Association (JAMA) Neurology*. 70(5): 565-70.
- George BP, Scoglio NJ, Reminick J, Rajan B, Beck CA, Seidmann A, Biglan KM, Dorsey ER (2012). Telemedicine in leading US neurology departments, *Neurohospitalist*. 2(4):123-8.

# MANUSCRIPT UNDER REVIEW

- Balaraman Rajan, Arvind Sainathan, Sal Agnihothri, and Leon Cui, Chronic disease management under different payment systems and the promise of mHealth. R&R. Manufacturing & Service Operations Management
- Dinesh R Pai and Balaraman Rajan, Can Health Information Technology Deliver on Their Promise? The case of Pennsylvania Hospitals. R&R *Journal of the Association for Information Science and Technology*

# MANUSCRIPT UNDER PREPARATION

- Balaraman Rajan, Tolga Tezcan and Abraham Seidmann, Optimal decisions for a server offering hybrid mode of service.
- Teleophthalmology for preventive care of Diabetic Retinopathy patients with Dr. Rajeev Ramchandran, Associate Professor of Ophthalmology, University of Rochester Medical Centre.

### **OTHER WORKING PAPERS**

- Balaraman Rajan and Surendra Sarnikar, Optimal Staffing and Routing for Patient Alarm System
- Balaraman Rajan and Vish Hegde, Healthcare Supply Chain vs. Traditional Supply Chains: A Comparative Analysis
- Balaraman Rajan, Role of Telemedicine in Continuous Care and Disease Management
- Balaraman Rajan and Abraham Seidmann, Optimizing physician processing rates with priority queues.



- Balaraman Rajan and Abraham Seidmann, Scheduling patients by improving on the Open Access Policy (OAP) in the family medicine clinic.
- Telemedicine for patients suffering from Migraine with Dr. Deborah Friedman, Professor, Neurology & Neurotherapeutics and Ophthalmology, University of Texas Southwestern Medical Center.

# **CONFERENCE PUBLICATIONS**

- Balaraman Rajan and Sal Agnihothri, Operational Impact of mHealth Adoption in Clinical Practice, *Hawaii International Conference on System Sciences (HICSS-52)*, 2019.
- Balaraman Rajan, Abraham Seidmann and Deborah Friedman, Managing Migraine via Telemedicine: Clinical Effectiveness and Process Implications, *Hawaii International Conference on System Sciences (HICSS-50)*, 2017.
- Balaraman Rajan and Abraham Seidmann, Improving Open Access Policy for Scheduling Outpatient Appointments, *Hawaii International Conference on System Sciences (HICSS-49)*, 2016.
- Balaraman Rajan, Abraham Seidmann and Rajeev Ramchandran, Teleophthalmology for Diabetic Patients: Saving Vision through IT, *Hawaii International Conference on System Sciences (HICSS-47)*, 2014.
- Balaraman Rajan, Abraham Seidmann and Ray Dorsey, Optimizing Physician Processing Rates with Priority Queues, *Hawaii International Conference on System Sciences (HICSS-46)*, 2013.
- Balaraman Rajan, Abraham Seidmann, Ray Dorsey, Kevin Biglan and Jason Reminick, Analyzing the Clinical and Competitive Impact of Telemedicine Experience with Treating Parkinson Disease Patients via Telemedicine, *Hawaii International Conference on System Sciences (HICSS-44)*, 2011.

# **CONFERENCE PRESENTATIONS & TALKS**

- Balaraman Rajan, Arvind Sainathan, Sal Agnihothri, and Leon Cui, Viability of mHealth for chronic disease management under various payment systems, *POMS* 2021
- Dinesh R Pai and Balaraman Rajan, Can Health Information Technology Deliver on Their Promise? The case of Pennsylvania Hospitals, *INFORMS* Seattle 2019
- Balaraman Rajan and Sal Agnihothri, Operational Impact of mHealth Adoption in Clinical Practice, *Hawaii International Conference on System Sciences (HICSS-52)*, 2019.
- Balaraman Rajan, Abraham Seidmann and Deborah Friedman, Telemedicine for Migraine Management: Empirical Investigation, *CIST* Phoenix, 2018.
- Balaraman Rajan and Surendra Sarnikar, Optimal Staffing and Routing for Patient Alarm System, *DSI* Washington D.C., 2017
- Balaraman Rajan and Vish Hegde, Healthcare Supply Chain vs. Traditional Supply Chains: A Comparative Analysis, *INFORMS* Houston, 2017
- Balaraman Rajan and N Ravichandran, Case Study: Challenges in Assembly Line Design, INFORMS Houston, 2017
- Balaraman Rajan, Abraham Seidmann and Deborah Friedman, Managing Migraine via Telemedicine: Clinical Effectiveness and Process Implications, *Hawaii International Conference on System Sciences (HICSS-50)*, 2017.
- Balaraman Rajan, C Ranganthan, Vivek Kathpal and Cheryl Grendahl, Improving Outpatient Appointment Scheduling in a Multi-specialty Hospital Setting: A Heuristics Approach, DSI Austin, 2016
- Balaraman Rajan, Abraham Seidmann and Deborah Friedman, New Empirical Evidence for the Clinical Effectiveness and Process Implications of Managing Migraine Care via Telemedicine: Interim Results, *INFORMS* Nashville, 2016.



- Balaraman Rajan, Abraham Seidmann and Deborah Friedman, Telemedicine for Migraine Management: Interim Study Results, *POMS* Orlando, 2016.
- Balaraman Rajan, Role of Telemedicine in Continuous Care and Disease Management, *DSI* Seattle, 2015
- Balaraman Rajan and N Ravichandran, Tactical Decisions @ Vastrapur Car Rental Services, *INFORMS* Philadelphia, 2015
- Balaraman Rajan, Tolga Tezcan and Abraham Seidmann, Service Decisions with customer heterogeneity, *INFORMS* Philadelphia, 2015.
- Balaraman Rajan and Abraham Seidmann, Improving Open Access Policy for Scheduling Outpatient Appointments, *Hawaii International Conference on System Sciences (HICSS-49)*, 2016.
- Balaraman Rajan, Tolga Tezcan and Abraham Seidmann, Optimal allocation of Physician's Time when Patient Utility is Heterogeneous, *INFORMS* San Francisco, 2014 and *INFORMS Healthcare* Nashville, 2015
- Balaraman Rajan, Abraham Seidmann and Rajeev Ramchandran, Teleophthalmology for Diabetic Patients: Saving Vision through IT, *Hawaii International Conference on System Sciences (HICSS-47)*, 2014.
- Balaraman Rajan, Abraham Seidmann and Ray Dorsey, Optimizing Physician Processing Rates with Priority Queues, *Hawaii International Conference on System Sciences (HICSS-46)*, 2013.
- Balaraman Rajan, Abraham Seidmann, Ray Dorsey, Kevin Biglan and Jason Reminick, Analyzing the Clinical and Competitive Impact of Telemedicine – Experience with Treating Parkinson Disease Patients via Telemedicine, *Hawaii International Conference on System Sciences (HICSS-44)*, 2011.
- Balaraman Rajan, Abraham Seidmann and Rajeev Ramchandran, Partnership and Contracting between Regional Medical Centers and Rural Hospitals via Telemedicine, *INFORMS* Minneapolis, 2013.
- Balaraman Rajan, Abraham Seidmann and Rajeev Ramchandran, Collaborative Network Models between Specialty and Rural Hospitals via Telemedicine, *INFORMS Healthcare* Chicago, 2013.
- Balaraman Rajan, Abraham Seidmann and Ray Dorsey, Impact of Telemedicine on the 'turf battle' Between Hospitals The Case of Chronic Disease Management, *CIST*, 2012.
- Balaraman Rajan and Abraham Seidmann, Scheduling Patients by Improving on the Open Access Policy (OAP) in the Family Medicine Clinic, *INFORMS* Phoenix, 2012.
- Balaraman Rajan, Abraham Seidmann and Ray Dorsey, Providers' Network Models for Care of Parkinson Patients via Telemedicine, *MSOM*, 2012.
- Balaraman Rajan, Abraham Seidmann and Ray Dorsey, The Economic Tradeoffs for a Specialist in Preferring Telemedicine – The case of Treating Parkinson Disease Patients, MSOM, 2011.
- Balaraman Rajan, Abraham Seidmann and Ray Dorsey, The Competitive Impact of Telemedicine for Care of Parkinson Patients, *WHITE*, 2011.
- Balaraman Rajan, Abraham Seidmann, Ray Dorsey, Kevin Biglan and Jason Reminick, Empirical Investigation of the Economics of Telemedicine for Treating Parkinson Disease Patients, *WISE*, 2010.
- Balaraman Rajan, Abraham Seidmann, Ray Dorsey, Kevin Biglan and Jason Reminick, Analyzing the Clinical and Competitive Impact of Telemedicine –Experience with Treating Parkinson Disease Patients via Telemedicine, *CIST* Austin, 2010.

### TEACHING EXPERIENCE

• Course Instructor



- o Data Analysis and Decision Modeling for graduate students (2016-19)
- O Data Mining for graduate students (2019-)
- o Quantitative Fundamentals for graduate students (2019-)
- o Decision Sciences for undergraduate students (2014-19)
- o Operations and Supply Chain Management for graduate students (2017-18)
- o Service Operations Management for graduate students (2018-)
- o Global Supply Chain Management and Sustainability for graduate students (2018-19)
- Ouality and Lean Management for graduate students (2019-)
- o Healthcare Operations for undergraduate students (2015-)
- Service Operations Management for undergraduate students (2017-)
- o Project Management for undergraduate students (2017-18)
- o Operations Management for undergraduate students (2014-17)
- o Global Supply Chain Management for undergraduate students (2015-16)
- o Core statistics for MS students (Fall 2012, 2013)
- o Mathematics for Management (Summer 2011, 2013)
- Lab Instructor
  - o Operations Management (2010-12)
  - o Framing and Analyzing Business Problems II (Spring 2013)
- Teaching Assistant (2009-14)
  - Operations Management, Framing and Analysis of Business Problems, Information System for Management, Strategic decision making, Healthcare Service Processes, Medical Entrepreneurship
- Teaching Assistant at IIT Madras, Spring, 2008

# **WORK EXPERIENCE**

Summer Intern at Wipro BPO (India) (Summer 2007)
 Defined and measured productivity of Finance & Accounting Process - Designed methodologies for productivity norms and optimized capacity with dynamic balancing (Cross utilization) of employees.

# **AFFILIATIONS**

• INFORMS, INFORMS/MSOM, POMS, DSI.

# **UNIVERSITY SERVICES**

- Co-chair/Member, Institutional Learning Outcomes (ILO) subcommittee, CSU East Bay, 2016-Present.
- Faculty Lead, ILO assessment, CSU East Bay, 2019-.
- Diversity Advocate and Member, Search Committee for TT Operations Management faculty position, CSU East Bay, 2018-19.
- Faculty Member, Educational Effectiveness Council (EEC), CSU East Bay, 2019-Present.
- Faculty Advisor, Supply Chain and Operations Management Association, APICS CSU Chapter, 2016-Present.
- Faculty Advisor, Emergency Preparedness Club, CSU East Bay, 2019-Present.
- Member, Co-curricular and Student Support (CCSS) Semester Conversion subcommittee, CSU East Bay 2016-18.
- Member, Search Committee for TT Business Analytics faculty position, CSU East Bay, 2017-18
- Faculty volunteer, Enrollment Management Task Force, CSU East Bay, 2016-17.



### PROFESSIONAL SERVICES

Adhoc Referee for Management Science (MS), Manufacturing & Service Operations
 Management (MSOM), Production and Operations Management (POM), Decision Science,
 Decision Support Systems, Journal of Management Information Systems (JMIS), Journal of
 the Operational Research Society (JORS), Hawaii International Conferences on System
 Sciences (HICSS).

# ACADEMIC / PROFESSIONAL AWARDS

- Mary Remmich Outstanding Teacher Award, 2021
- BSBA Online Teaching Award for excellence in online instruction, 2020
- Faculty Support Grant (competitive) for 2019-20, CSU East Bay.
- A2E2 grant (competitive) for 2017-18 and 2019-20, CSU East Bay.
- Online & Hybrid Course Quality Transformation Grant (competitive) for 2019-20 and 2017-18
- Recipient of full doctoral fellowship and travel awards, University of Rochester.
- Gold Medalist MBA, Class of 2008, IIT Madras.
- 'TS Rajagopalan Memorial Prize' and 'Academic Distinction' awards for best academic performance in MBA Class of 2008.
- 'Wise Cracker' Adjudged the Best Summer internship project award by Wipro among the 178 students across the country May 2007.
- All India Rank 10 in the Joint Management Entrance Test (JMET 2006).
- UG Project in the academic year '05-06 adjudged the best in college and awarded "Innovative Project Award" by INAE (Indian National Academy of Engineers), Delhi.
- Anna University Rank Holder (Top 1 % of the students who had appeared).

### **SOFTWARE LANGUAGES**

• Mathematica, Matlab, R, Crystal Ball, Risk Solver, MS Excel (VB).

# POSITIONS OF RESPONSIBILITY

- President, HOA, Canyon Meadows, 2019-21.
- Treasurer (2010-11), Rochester Indian Association, University of Rochester.
- Chief Coordinator, Samanvay 2008, Business fest, IIT Madras.
- Event Coordinator, Samanvay 2007, Business fest, IIT Madras.
- Student Placement Coordinator 2005-06, Sri Venkateswara College of Engineering.
- Event Management, Ignition 2005, Technical Symposium, Sri Venkateswara College of Engineering.

### **HOBBIES / EXTRA CURRICULAR ACTIVITIES**

- Disaster Action Team (DAT) Leader, American Red Cross, Bay Area Chapter (2015-) and Rochester Chapter (2011-14).
- Tutoring refugees and high school students.
- Acting in stage plays and participating in cultural shows.
- Framing and solving cryptic crosswords.
- Playing chess, volleyball.
- Exploring literature epics with special reference to Ramayana.

### **LANGUAGES**

• English (fluent), Tamil (native), Hindi (conversational), Sanskrit (Read and Write).