

# Pratyush N. Sharma

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## Employment

Assistant Professor (tenure-track) of Information Systems (August 2013 - )  
Alfred Lerner College of Business and Economics, University of Delaware

Lecturer in Information Systems (Jan 2011 – May 2013)  
College of Business Administration, University of Pittsburgh

Lecturer in Programming Languages (May 2007 – May 2008)  
Department of Computer Science, University at Buffalo

## Education

PhD, Information Systems (August, 2013)  
Joseph M. Katz Graduate School of Business, University of Pittsburgh

M.S, Computer Science & Engineering (September, 2008)  
University at Buffalo, the State University of New York

B.E, Computer Science & Engineering (July, 2005)  
Visvesvaraya Technological University, India

## Research Interests

Online Collaboration Communities and Networks; Virtual teams; Open Source Software Development; Multilevel Modeling; Research Methodology (Partial Least Squares Path Modeling); Technology Use, Adoption, and Satisfaction in various contexts; Human Computer Interaction

## Refereed Research Articles (Including Under Review or Revision)

[14] **Sharma, P.N.**, Daniel, S., Chung, R., and Grover, V. “A Multilevel Growth Model of Open Source Software Developer Code Contribution,” Under Review or Revising, (2018).

[13] Chung, R., **Sharma, P.N.**, Lee C.C., and Pavlou, P. “The Influence of Country Digital Infrastructure on Fraud,” Under Review or Revising, (2018).

[12] **Sharma, P.N.**, Hulland, J., Safadi, H., and Karahanna, E. “Developer Retention in Open Source Software Teams,” Under Review or Revising, (2018).

[11] **Sharma, P.N.**, Morgeson III, F., Mithas, S., and Aljazzaf, S. "In Which Model Do We Trust, and When? Comparing the Explanatory and Predictive Abilities of E-Government User Satisfaction and Citizen Trust Models," Minor Revision/Forthcoming at *Government Information Quarterly*, (2018).

[10] Hult, T., **Sharma, P.N.**, Morgeson III, F., and Zhang, Y. "Impact of Customer Heterogeneity on Customer Satisfaction Modeling: Unraveling the Distinctions between E-Commerce and Brick-and-Mortar Retailing," Minor Revision at the *Journal of Retailing*, (2018).

[9] **Sharma, P.N.**, Sarstedt, M., Shmueli, G., Kim, K.H. (†), and Thiele, K.O. "PLS-Based Model Selection: The Role of Alternative Explanations in Information Systems Research," *Journal of the Association for Information Systems*, forthcoming (2019).

**Based on the results and recommendations of this paper, selected model selection criteria are being introduced in SmartPLS, the world's leading PLS analysis software. An excel file for computing model selection criteria can be downloaded from <https://www.pls-sem.net/downloads/>. R-users can access the entire range of criteria using the **semplisic** package, which is an extension to the **sempls** package.**

[8] **Sharma, P.N.**, Shmueli, G., Sarstedt, M., Danks, N. & Ray, S. "Prediction Oriented Model Selection in Partial Least Squares Path Modeling," forthcoming at *Decision Sciences*, forthcoming (2018).

[7] **Sharma, P.N.**, Pohlrig, R.T., and Kim, K.H. (†) "Model Misspecifications and Bootstrap Parameter Recovery in PLS and ML-SEM based Exploratory Modeling," in R. Noonan & H. Latan (Eds): *Partial Least Squares Path Modeling: Basic Concepts, Methodological Issues and Applications*, Springer (2017).

[6] Wang, Z., **Sharma, P.N.**, and Cao, J. "From Knowledge Sharing to Firm Performance: A Predictive Model Comparison," *Journal of Business Research*, 69(10), pp.4650-4658, (2016).

[5] Morgeson III, F., **Sharma, P.N.**, and Hult, T., "Cross-National Differences in Consumer Satisfaction: Mobile Services in Emerging and Developed Markets," *Journal of International Marketing*, 23(2), pp. 1-24 (2015). [Journal Impact Factor \(2016\)](#)  
**Media Mentions:** [ScienceDaily](#) [Phys.org](#) [EurekaAlert!](#)

[4] **Sharma, P.N.**, and Kim, K.H. (†) "A Comparison of PLS and ML Bootstrapping Techniques in SEM," in H. Abdi et al. (Eds): *New Perspectives in Partial Least Squares and Related Methods*, vol. 56, pp. 201-208, Springer Verlag (2013).

[3] **Sharma, P.N.**, Hulland, J., and Daniel, S. "Examining Turnover in Open Source Software Projects Using Logistic Hierarchical Linear Modeling Approach," in I. Hammouda et al. (Eds): *Open Source Systems: Long Term Sustainability*, *IFIP Advances in Information and Communication Technology*, v. 378, pp. 331-337, Springer Berlin Heidelberg (2012).

[2] Gonzalez, G., **Sharma, P.N.**, and Galletta, D. "Factors Influencing the Planned Adoption of Continuous Monitoring Technology," *Journal of Information Systems*, 26(2), pp. 53-69, (2012).

[1] Gonzalez, G., **Sharma, P.N.**, and Galletta, D. "The Antecedents of the Use of Continuous Auditing in the Internal Auditing Context," *International Journal of Accounting Information Systems*, 13(3), pp. 248-262, (2012).

### **Refereed Conference & Workshop Paper Presentations**

Note: Conference and workshop papers may be the preliminary versions of journal articles or book chapters.

[C14] **Sharma, P.N.**, Sarstedt, M., Shmueli, G., Thiele, K., and Kim, K.H (†). "Model Selection in Partial Least Squares Structural Equation Modeling," in the *International Symposium on Applied Structural Equation Modeling*, Kuching, Malaysia (2017).

[C13] **Sharma, P.N.**, Shmueli, G., Sarstedt, M., Danks, N. & Ray, S. "Prediction Oriented Model Selection in Partial Least Squares Path Modeling," in *9th International Conference on PLS and Related Methods*, Macau, China (2017).

[C12] Chung, R., **Sharma, P.N.**, and Lee C.C. "The Influence of Country Digital Infrastructure on Fraud," *MIS Quarterly Pre-AMCIS Authors Workshop*, San Diego, CA (2016).

[C11A] **Sharma, P.N.**, Daniel, S. and Chung, R. "The Impact of Person-Organization Fit and Psychological Ownership on Turnover in Open Source Software Projects," at the *INFORMS Annual Meeting*, Philadelphia (2015).

[C11] **Sharma, P.N.**, Daniel, S. and Chung, R. "The Impact of Person-Organization Fit and Psychological Ownership on Turnover in Open Source Software Projects," in the *21<sup>st</sup> Americas Conference on Information Systems*, Puerto Rico (2015).

[C10A] **Sharma, P.N.**, Sarstedt, M., Shmueli, G. and Kim, K.H (†). "Predictive Model Selection in Partial Least Squares Path Modeling," in the *2<sup>nd</sup> International Symposium on Partial Least Squares Path Modeling*, Seville, Spain (2015).

[C10] **Sharma, P.N.**, Sarstedt, M., Shmueli, G. and Kim, K.H (†). "Predictive Model Selection in Partial Least Squares Path Modeling," in the *11<sup>th</sup> Symposium on Statistical Challenges in E-Commerce Research (SCECR)*, Addis Ababa, Ethiopia (2015).

[C9A] **Sharma, P.N.**, Morgeson III, F., Mithas, S. and Aljazzaf, S. "In Which Model Do We Trust, and When? Comparing the Explanatory and Predictive Abilities of E-Government User Satisfaction and Citizen Trust Models," in the *21<sup>st</sup> Americas Conference on Information Systems*, Puerto Rico (2015).

[C9] **Sharma, P.N.**, Morgeson III, F., Mithas, S. and Aljazzaf, S. "In Which Model Do We Trust, and When? Comparing the Explanatory and Predictive Abilities of E-Government User Satisfaction and Citizen Trust Models," in the *24th annual IBM Frontiers in Service Conference*, San Jose, CA (2015).

[C8] **Sharma, P.N.** and Kim, K.H. (†) "Model Selection in Information Systems Research Using Partial Least Squares Based Structural Equation Modeling," in *Proceedings of the 33<sup>rd</sup> International Conference on Information Systems*, Orlando, FL (2012).

[C7] **Sharma, P.N.** “Essays on the Sustainability of Open Source Projects,” accepted for the *Proceedings of the Doctoral Consortium, 8<sup>th</sup> International Conference on Open Source Systems*, Hammamet, Tunisia (2012).

[C6] **Sharma, P.N.** and Kim, K.H. (†) "A Comparison of PLS and ML Bootstrapping Techniques in SEM: A Monte Carlo Study," in *Proceedings of the 7th International Conference on Partial Least Squares and Related Methods*, Houston, Texas (2012). \*This paper was among the few selected communications in the conference to be published as a book chapter [B2].

[C5] **Sharma P.N.**, Hulland, J. and Daniel, S. “Examining Turnover in Open Source Software Projects Using Logistic Hierarchical Linear Modeling Approach,” the *8<sup>th</sup> International Conference on Open Source Systems*, Hammamet, Tunisia (2012). \*This paper has appeared as a book chapter [B1].

[C4] Gonzalez, G., **Sharma, P.N.** and Galletta, D. "Continuous Monitoring: Are Non-Adopters with Future Adoption Plans More Enlightened than Non-Adopters with No Adoption Plans?" in the *Information Systems and Strategic & Emerging Technologies Section of the 2012 American Accounting Association Mid-Year Conference*, Scottsdale, Arizona (2012). \*This paper has appeared as a journal paper [J2].

[C3] **Sharma, P.N.**, Gonzalez, G. and Galletta, D. "Adoption of Continuous Monitoring and Continuous Auditing: A Multi-Group Partial Least Squares Approach," in *SIG-ASYS Workshop on Accounting Information Systems*, Shanghai, China (2011).

[C2] Gonzalez, G., **Sharma, P.N.** and Galletta, D. "The Antecedents of Continuous Auditing in the Internal Auditing Context," in *Proceedings of the 7th University of Waterloo Research Symposium on Information Integrity and Information Systems Assurance*, Toronto, Canada (2011). \*This paper has appeared as a journal paper [J1].

[C1] **Sharma, P.N.**, Daniel, S. and Chung, R. "The Impact of Person-Organization Fit on Turnover in Open Source Software Projects," in *Proceedings of the 31st International Conference on Information Systems*, St. Louis, Missouri (2010). \*Also presented at the *MIS Quarterly Pre-ICIS Authors Workshop*, St. Louis, Missouri (2010).

## Work In Progress

**Sharma, P.N.**, Daniel, S., and Chengalur-Smith, I. “Open Source Software Developer Identification and its Impact on Code Contribution,” (2018).

Morgeson III, F., **Sharma, P.N.**, and Mithas, S. “Political Partisanship & Performance Evaluations,” (2018).

Chung, R, Lee, C.C, **Sharma, P.N.**, and Pinto, J. “The Influence of National Culture on Fraud Magnitude: A Multilevel Analysis,” Write-up in progress (2018).

**Sharma, P.N.**, Sarstedt, M., Ray, S., Danks, N., and Shmueli, G. “PLS Model Averaging,” (2018).

**Sharma, P.N.**, Ortega, F., Julien, N., and Platzter, M. “Analyzing member retention in online communities,” Data Collection in progress.

**Sharma, P.N.**, Hullah, J., and Xiong, G. “Niche Effects in Open Source Eco-Systems,” Data collection in progress.

**Sharma, P.N.**, and Grover, G. “Feedback loops in MIS research,” (2018).

### Statistical Packages

Monecke, A., **Sharma, P.N.**, and Kim, K.H (†). (2013) “*semPLSic*: Information Criteria for PLS based SEM.” R Package Version 0.1-0. Available [here](#).

### Research Funding

Primary Investigator, Joseph M Katz Graduate School of Business Research Grant, January 2011, \$2,000.

Co-Investigator (with Dennis Galletta and George Gonzalez), Institute of Management Accountants Research Grant, January 2011, \$2,430.

Co-Investigator (with Dennis Galletta and Ilana Diamant), Joseph M Katz Graduate School of Business Research Grant, December 2010, \$4,000.

### Invited talks:

**Sharma, P.N.** (2015). [Innovative Discoveries Series: Predictive Analytics Using Partial Least Squares Structural Equation Modeling](#). Delivered at the Delaware Centre for Accelerating Clinical and Transactional Research, March 06<sup>th</sup> 2015.

Chung, T. R., **Sharma, P. N.**, Lee, C. C., & Mondal, S. (2016). The Relationship between Digital (ICT) Environments and Occupational Fraud Magnitude: A Multi-Level Investigation across Nations. The Institute for Fraud Prevention (IFP) meeting, November 3<sup>rd</sup>, 2016, New York City, NY.

### Teaching:

Database Design and Implementation (Fall 2013 to current), Lerner College of Business and Economics, University of Delaware.

Covers the design and implementation of enterprise databases in the business environment with a focus on MySQL and Access. Students learn concepts of ER Modeling, SQL, stored routines, flow of control, cursors, triggers etc. In addition, there is focus on the analysis of data using various data mining techniques.

Lecturer & Course Coordinator, Introduction to Information Systems (BUSMIS-1060), College of Business Administration, University of Pittsburgh (Spring 2013, Fall 2012). **Two-time Katz Doctoral Program Distinguished Teaching Award Winner**. Latest Instructor Rating: 4.76 (out of 5).

The overall goal of this course was to provide technical exposure to students and help them appreciate the use of IT in Business settings. I was responsible for introducing Data Mining Models for Business Intelligence in this course and updating the syllabus.

Students learned the use of Unsupervised Learning models (Correlation, Association Rules, K-Means Clustering and basic Text and Web Mining) for Descriptive Analytics and Supervised Learning models (Discriminant Analysis, Regression, Decision Trees and Neural Networks) for Predictive Analytics. This course also introduced students to Relational Database Management Systems, Spreadsheets, Enterprise Resource Planning Systems (SAP-ERP) and Decision Making using the Analytic Hierarchic Process.

Lecturer, Introduction to Information Systems, College of Business Administration, University of Pittsburgh (Spring 2011, Spring 2012).

Lecturer, Concepts of Programming Languages (CSE-305), Department of Computer Science, University at Buffalo (Summer 2007, Summer 2008).

The goal of this class was to examine various programming paradigms and the associated languages and their grammars to understand the choices that have been made by language designers and how it affects their use by programmers. Topics include the nature of variables, types, expressions, control structures, subprograms, concurrency, and exceptions; syntax and semantics. Students worked on programming assignments under different programming paradigms, such as imperative, functional, logic, procedural and object-oriented. Languages introduced were ML, Prolog, C, C++.

## **Reviewing Services**

### Journals:

MIS Quarterly (2014, 2018)  
Journal of International Marketing (2017)  
Decision Sciences (2017)  
Production and Operations Management (2015)  
Journal of Business Research (2016)  
International Journal of Accounting Information Systems (2014)  
Information Systems Management (2014)  
Journal of Information Systems (2014)  
Information Technology and Management (2013; 2014; 2015)  
PLOS ONE (2015)  
Journal of Electronic Commerce Research (2015)  
The Data Base for Advances in Information Systems (2010; 2013)  
Journal of the Association for Information Systems (JAIS 2010)  
Business Process Management Journal (BPMJ 2010)

### Conferences & Workshops:

International Conference for Information Systems (ICIS 2009, 2011, 2012, 2013, 2014, 2016, 2017)  
Academy of Management: OCIS Division (AoM 2015)  
European Conference for Information Systems (ECIS 2012, 2013; 2014; 2016)  
Americas Conference for Information Systems (AMCIS 2009, 2012; 2018)  
Dewald Roode Workshop in Information Systems Security Research (2016)

## **Professional Services**

- MIS Continuing-track Assistant Professor Search Committee, 2018, Alfred Lerner College of Business and Economics, University of Delaware.
- Business Analytics & Data Mining Undergraduate Major Design Committee, 2015, Alfred Lerner College of Business and Economics, University of Delaware.
- Session Chair, INFORMS Annual Meeting, 2015, Philadelphia.
- Associate Editor, International Conference on Information Systems (ICIS), 2016, Dublin, Ireland.
- Session Chair, INFORMS Annual Meeting, 2016, Nashville, TN.

## **Technical Reports**

Gonzalez, G., Sharma, P.N. and Galletta, D. "Continuous Auditing and Continuous Monitoring Technology Implementation: A Worldwide Survey," IMA Foundation Research Grant Summary (January, 2012).

## **Unpublished Manuscripts**

Sharma, P.N. "A Survey on Quantum Kolmogorov Complexity," (2007).

Sharma, P.N. "Mathematical Prerequisites for Quantum Computation," (2007).

## **Honors and Awards**

Fellow, International Conference on Information Systems (ICIS) Junior Faculty Consortium, Auckland, New Zealand, 2014.

Beta Gamma Sigma Honors Society.

Two-time Recipient of the Katz Doctoral Program Distinguished Teaching Award, Fall 2012 and Spring 2013.

Doctoral Consortium, International Conference on Open Source Systems, Hammamet, Tunisia 2012.

Fellow, Consortium for the Science of Socio-Technical Systems (CSST) 2012.

Roger S. Ahlbrandt Sr. Fellowship, 2008 - 2011, University of Pittsburgh.

Full Tuition Scholarship, Spring 2007 - Spring 2008, University at Buffalo.

## **Other Work Experience**

Research Assistant, Fall 2008 - Fall 2009, Joseph M Katz Graduate School of Business.

Teaching Assistant, Fall 2008 - Fall 2009, Joseph M Katz Graduate School of Business.

Research Assistant, Fall 2007 - Summer 2008, Department of Computer Science, University at Buffalo. Programmer for the NYSTAR's Incident Responder Monitoring System.

Teaching Assistant, Spring 2007, Department of Computer Science, University at Buffalo.

Instructor, MBA Excel Workshops, Fall 2010 - Present, Joseph M Katz Graduate School of Business.

### **Technical Skills**

Languages: C/C++, JAVA, ML, PROLOG, SQL

Statistical Software: R, SPSS, HLM 6.0, EQS, SmartPLS

### **Professional Memberships**

Association for Information Systems (AIS)

Beta Gamma Sigma Honors Society

### **References**

Brian Butler  
Professor of Information Systems,  
College of Information Studies and the Robert H Smith School of Business,  
University of Maryland.  
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