### **Kustini LIM-WAVDE**

Doctoral Programme in Information Systems
School of Information Systems, Singapore Management University
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### **EDUCATION**

PhD	Information Systems	2013-2017	Singapore Management University
			(SMU). SINGAPORE

Dissertation: Policy Analytics for Environmental Sustainability: Household Hazardous Waste and Water Impacts of Carbon Pollution Standards

Committee: Robert J. Kauffman (Chair), Mei Lin, Zhiling Guo, and Haibo Zhai

	LARC-Funded PhD Visit	2014-2015	Carnegie Mellon University (CMU), USA
MBA	International Management	2005-2007	International University of Japan, JAPAN
	Exchange Program	2006	Owen Graduate School of Management, USA
B.Eng	Electrical Engineering	1997-2002	University of Indonesia, INDONESIA
	Exchange Program	2000-2001	Chiba University, JAPAN

### RESEARCH INTEREST

I am interested in research topics related to data analytics, policy analytics, public data analysis, computational social science, strategy, design, and implementation of IT for environmental sustainability. This includes applications of advanced econometrics, geospatial analysis, optimization and computer modeling, social media, mobile devices, digital sensing and the Internet to support the development of new practices for more sustainable living.

## PHD THESIS RESEARCH DESCRIPTION

Policy analytics are essential in supporting more informed policy-making in environmental management. The dissertation employs a fusion of machine methods and explanatory empiricism that involves data analytics, math programming, optimization, econometrics, geospatial and spatiotemporal analysis, and other methodologies for assessing and evaluating current and future environmental policies in waste management and energy policy. These approaches represent advances in policy analytics to overcome the research challenges, such as the data limitations, the uncertainties associated with the analysis of energy futures, and best practices in establishing causal estimates in empirical research designs. The dissertation contributes to the growing body of research on policy analytics for environmental sustainability and improves our understanding of how to craft policies that enhance sustainability for the future.

### **PUBLISHED WORKS**

- **Lim-Wavde, K.**, Kauffman, R.J., 2017. Global Garbage Cans: Towards Better Household Hazardous Waste Management in Developing Countries in Asia. Forthcoming in *Asian Management Insights*.
- **Lim-Wavde, K.,** Kauffman, R.J., Dawson, G.S., 2017. Household Informedness and Policy Analytics for the Collection and Recycling of Household Hazardous Waste in California. *Resources, Conservation and Recycling, 120*, pp. 88-107.
- **Lim-Wavde, K.,** Kauffman, R.J., Kam, T.S., Dawson, G.S., 2017. Location Matters: Geospatial Policy Analytics over Time for Household Hazardous Waste Collection in California. *iConference 2017 Proceedings*.
- **Lim-Wavde, K.**, Kauffman, R.J., Dawson, G.S., 2016. Policy Analytics, Household Informedness and the Collection of Household Hazardous Waste. In *Proc. 5<sup>th</sup> Intl. Conf. on Informatics, Environment, Energy and Applications*, Hong Kong, China, February 2016. Published via *MATEC Web of Conferences*, 68, 14003.

#### **WORKING PAPERS**

- **Lim-Wavde, K.**, Zhai, H., Rubin, Kauffman, R.J., E.S. Reacting to the New Carbon Pollution Standards: Electric Power Generation Pathways and Their Water Impacts. Working paper, UNICEN, SMU, September 2017. In preparation for submission to *Energy Policy*.
- **Lim-Wavde, K.,** Kauffman, R.J., Kam, T.S., Dawson, G.S. The Effects of Location and Grant Funding on Household Hazardous Waste Collection. Working paper, UNICEN, SMU, September 2017. In preparation for submission to *Applied Geography*.

#### AWARDS AND EXTERNAL RECOGNITION

- Featured, Research Highlights. From Household Trash to Policy Treasure.
   Research@SMU, Issue 45, June 2017.
- Finalist, Lee Dirks Best Paper Award. Location Matters: Geospatial Policy Analytics over Time for Household Hazardous Waste Collection in California. iConference, Wuhan, March 2017
- Participant, iConference Doctoral Colloquium, Wuhan, China, March 2017
- Runner-up, 3-Minute Thesis competition, Singapore Mgmt. Univ., August 2016
- Recipient, SMU Living Analytics Research Center Scholarship for PhD Overseas Training Residency at Carnegie Mellon University, 2014 - 2015
- Postgrad Research Scholarship, Singapore Management University, 2013 2016
- Matsushita Intl Foundation Scholarship, Intl University of Japan, 2005 2007

### **SERVICE**

- Editorial Assistant, *Electronic Commerce Research and Applications* (ECRA 2014-2017)
- Reviewer, Resources, Conservation and Recycling (RCR 2017)
- Reviewer, Hawaii International Conference on System Sciences (HICSS 2016)

## **INVITED TALK**

• Speaker, Analytics in Government Speaker Session, National Environmental Agency, Singapore, October 2017

### PROFESSIONAL ACTIVITIES

Membership, Association for Information Systems (AIS)

Membership, American Association for the Advancement of Science (AAAS)

Collaboration Research Exhibition, PhD Programme, Singapore Management University

- Organizing committee member, 2016
- Research poster presentation: Assessing the Spatial Temporal Pattern of Household Hazardous Waste Collection, 2016

PhD Student Life Committee, Singapore Management University

• Founding committee co-chair, 2015

Innovation with Impact - Graduate Interdisciplinary Exhibition, Carnegie Mellon University

 Research poster presentation: Assessing Water Use Impact of Low-Carbon Electricity Generation, 2015

## **TEACHING ASSISTANCE**

- IS 101, Seminar on IS Mgmt (Undergraduate Programme, SMU), 2016
- IS 713, Foundations for Data Analytics (Doctoral Programme in SMU), 2015

### DATA ANALYTICS AND SOFTWARE SKILLS

Programming in R, MatLab, Java; skills in BayesiaLab, SPSS, Eclipse, Analytica, Excel

### **RELEVANT COURSEWORK**

- EPP 19-424: Energy and the Environment (CMU)
- EPP 19-701: Introduction to Theory and Practice of Policy Analysis (CMU)
- EPP 19-714: Environmental Life Cycle Assessment (CMU)
- EPP 19-739: Engineering and Economics of Electric Energy System (CMU) (Audit)
- ECON 601 / 621: Microeconomic (one-year sequence) (SMU)
- ECON 611 / 623: Econometrics (one-year sequence) (SMU)
- IS 703: Decision Support and Optimization (SMU)
- IS 705: Foundations for Research in IS and Management (SMU)
- Effective Communication for Grad Instructors, Centre for English Comm., SMU, 2017
- Short Course in the XI<sup>th</sup> World Conference of the Spatial Econometrics Assoc, 2017

## **WORK EXPERIENCE**

IT Infrastructure Administrator, Japan Advisory LLC, Japan, 2009-2012

- Managed IT infrastructure including server/desktop/networking equipment acquisition, installation, maintenance, troubleshooting, and user support for a user base of 25 people
- Managed and maintained IT equipment, mobile devices, and telephone system

Desktop Support Engineer, UBS Securities Japan, Japan, 2007-2009

 Maintained and supported desktop PCs and laptop (about 1000 users) in a Desktop Technical Support team of 11 people using Remedy ticketing system System Engineer, PT Omnes Services Indonesia, Schlumberger, Indonesia, 2002-2005

- Provided desktop support service to a leading mobile telecommunication company in Indonesia
- Assisted AS/400 Security Project for a governmental bank in Jakarta
- Provided IT infrastructure support for a Chinese national oil company

# **LANGUAGE SKILLS**

Indonesian: native language; English: fluent; Japanese: Advanced, Japanese Language Proficiency Test Level 2