

UNSW Business School

School of Information Systems & Technology Management

Research Seminar:

Exploring the Effects of Smog on E-Commerce: Evidence from Panel Data Analysis of An Online Group Buying Site in China

Presenter:

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Date:

Thursday 11 May 2017
11:00 A.M. to 12:00 P.M.

Venue:

Room 2093, Level 2, West Wing, Quadrangle Building
School of Information Systems and Technology Management
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Abstract

Use context is crucial in comprehending human perceptions and behaviors. Yet, little is known about how environmental conditions, as a use context, affects e-commerce. The current study investigates whether and how air pollution, as a hazardous environmental condition, influences online consumption patterns across 28 major cities in China. Based on analysis of panel data collected on the daily sales of 327,425 items for an online group-buying site over a 16-months period, we supply robust empirical evidence that attests to the severity of air pollution as having an amplification effect on the sales of e-commerce sites. Furthermore, we found air pollution to exert a spillover effect on online sales: poor air quality not only has a positive influence on online sales for the same day but this influence spills over into subsequent days as well. Our study also reveals stronger time-lag effects on the sales of cheap products than on expensive ones. Finally, we discovered that increased revenue caused by air pollution on a specific date does not depress online sales in the future, thereby implying an overall positive impact of smog on e-commerce revenue. In line with our observations, we argue that the appeal and utility of e-commerce sites are not static in nature, but dynamically changes in response to use contexts, such as environmental conditions.

Biography

Chee-Wee Tan is a Professor in the Department of Digitization at Copenhagen Business School (Denmark). He holds a PhD in Business Administration from the University of British Columbia (Canada) as well as Master of Science and Bachelor of Science degrees from the National University of Singapore (Singapore). Chee-Wee's research interests focus on design and innovation issues related to the delivery of digital services. Particularly, he is interested in discovering how value can be extracted from digital services and exploring ways by which contemporary technological trends can contribute to the design of innovative services. Findings from his research has been presented at numerous international conferences and he has articles published or forthcoming in journals such as MIS Quarterly (MISQ), Information Systems Research (ISR), Journal of the American Society for

Information Science and Technology (JASIST), European Journal of Information Systems (EJIS) and Decision Support Systems (DSS) among others. Chee-Wee currently serves as an Associate Editor for MISQ and is a past recipient of the Outstanding Associate Editor Award for services rendered to MISQ. He is also serving as a guest editor for two special issues, one on 'Embracing the Internet of Things (IoT) to Drive Data-Driven Decisions' at the Journal of Management Analytics (JMA) and one on 'Omnichannel Business: Opportunities and Challenges' at Decision Support Systems (DSS). In addition, Chee-Wee is also serving as an advisory board member for Industrial Management & Data Systems (IMDS) and a Special Issue on 'Transformative Value of Cloud Computing' at Journal of Management Information Systems (JMIS).