THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

DEPARTMENT OF APPLIED MATHEMATICS
應 用 數 學 系

The Hong Kong Polytechnic University
Department of Applied Mathematics

Colloquium

Can Big Data and Machine Learning Aid Human Capital Management:
The Case of Employee Turnover Before and After the Covid-19 Pandemic

By

Prof. Bin KE
National University of Singapore

Abstract

Due to the rise of machine learning and big data, people analytics is expected to be widely adopted by firms around the world and has the potential to disrupt the human capital management profession. However, due to the proprietary nature of human capital management, there is little empirical research on the benefits and costs of adopting people analytics in practice. We contribute to this new literature by examining the feasibility of using big data and machine learning to enhance a firm's human capital management. We leverage the proprietary data from a Chinese bank on each employee's demographic characteristics, annual performance evaluation, and daily attendance records to build a machine-learning model to predict an employee's voluntary turnover on a yearly basis. We also examine how data and concept drifts during the Covid-19 pandemic affect the performance of our best machine learning model.

Biography

Dr. Bin KE is a Professor of Accounting and Provost's Chair at the NUS Business School. He was a faculty member at Pennsylvania State University and Nanyang Technological University. He is a holder of the prestigious "*Chang Jiang Scholar*" title awarded by China's Ministry of Education and the Li Ka Shing Foundation. He has served on the editorial board of multiple global academic journals, including the *Journal of American Taxation Association*, *The Accounting Review*, and *The International Journal of Accounting*.

Dr. Ke's primary research interests focus on the production and use of accounting information in business decisions. He is interested in using interdisciplinary approaches, including big data, machine learning, and blockchain, to tackle today's complex business problems. His recent research focuses on financial reporting, investor protection, and digital transformation in emerging markets with a particular focus on China. His research has been published in all major accounting journals, including *The Accounting Review*, *Journal of Accounting and Economics*, and *Journal of Accounting Research*.

Date: 14 April 2023 (Friday)
Time: 16:00-17:30 (Hong Kong Standard Time GMT +8)
Venue: TU101 (Hybrid mode)
Meeting ID: 983 3457 2950 (Passcode: 0414)
Speaker: Prof. Bin Ke, National University of Singapore
Host: Prof. Min Dai, The Hong Kong Polytechnic University
Click to join:
https://polyu.zoom.us/j/98334572950?pwd=R0t3eVREL09SWHVrTm9pUUluSkR2dz09

Click to join

* * * ALL ARE WELCOME * * *