

Lingnan University 嶺南大學 香港 Hong Kong

Faculty of Business 嶺南大學商學院

Accounting Research Workshop Series

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Measuring Employee Commitment with Dark Data: A Predictive KPI for Ex Ante Employee Turnover Risk

Abstract: Employee commitment to the firm is an economically important but unobservable state variable in human capital management: employees hold private information about their intent to stay, and firms typically learn of a departure only at resignation, when intervention is no longer possible. We develop and validate an ex ante measure of employee-level turnover risk—a forward-looking predictive key performance indicator (KPI)—from two types of "dark" data that firms already collect as a byproduct of operations: attendance records and Office Automation (OA) logs. Machine learning models trained on these data improve out-of-sample turnover prediction by 36–38% over a benchmark based on curated employee profile data, and the two data sources are largely substitutable, consistent with their being noisy signals of the same latent construct. Two validation analyses indicate that the measure captures commitment rather than a statistical artifact: a parsimonious, theory-driven commitment index recovers roughly one-half to two-thirds of the data-driven models' predictive gains, and employees with higher predicted turnover risk exhibit significantly lower engagement on the firm's enterprise social media platform, an independent data source excluded from the prediction models. Our results establish ex ante turnover risk as a measurable leading indicator of human capital risk within the firm.

About the Speaker

Dr Fiona Wang is an Assistant Professor in the Department of Accounting at the National University of Singapore (NUS) Business School. She is primarily interested in how information facilitates firms' management of human capital resources to achieve desired performance outcomes. Her research focuses on the design and implementation of incentive and evaluation systems, practices enhanced by data-driven technologies, as well as informal management controls such as corporate culture and benefits plans.

Date: November 4, 2026 (Wednesday)

Time: 10:30am—12:00noon

Venue: SEK210

Language: English

All are welcome

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