Augmenting small firm default risk prediction with bank transaction information

Vuong Minh Giang*[1] and Jean-Christophe Statnik[2]

[1]Lille University Management Lab - ULR 4999 – Université de Lille, Université de Lille : ULR4999 – France

[2]Lille University Management Lab - ULR 4999 – Université de Lille, Université de Lille : ULR4999 – France

Abstract

Predicting default risk among small firms presents a persistent challenge due to limited access to standardized financial information and the inherently volatile nature of such enterprises. Traditional credit risk models often rely on financial statements, which are backward-looking and subject to managerial discretion, thus limiting their predictive power. This study investigates whether bank transaction data - capturing real-time financial behavior through cash flows, payment patterns, and account balances - can enhance default prediction models for small firms. Utilizing a unique dataset from a major Vietnamese commercial bank, we develop an ensemble model that integrates conventional financial ratios with transaction-based features. The results show that augmenting baseline financial models with transaction data significantly improves predictive performance. Notably, transaction-derived indicators consistently outperform traditional metrics across various specifications and robustness checks. The study also provides a rare out-of-time test during a period heavily impacted by the COVID-19 pandemic, offering insights into model stability under economic stress. By focusing on Vietnamese SMEs, this research addresses a notable gap in the literature and contributes empirical evidence supporting the value of behavioral data in credit risk assessment, with practical implications for more inclusive and responsive lending practices in emerging markets.

*Speaker