Understanding Customer Risk Adjustment in Commercial Banks: A Machine Learning Approach

by

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Date	:	**Tuesday, 30 November 2021**
Time	:	**2:30 pm – 4:00 pm (Hong Kong Time)**
		Click here to join Zoom
Zoom Details	:	**Meeting ID: 931 1775 4236 (Passcode: 164650)**

Abstract: Understanding customers' risk preferences is important for financial firms to effectively target offerings and manage relationships; however, assessing customers' risk preference, particularly at scale and over time, is challenging. Lacking for efficient measures, we have limited understanding on risk preferences and the associated decision-making. Especially, little research has been carried out on when and how customers adjust their portfolio from the perspective of managing risk. To fill this research gap, we employ machine learning techniques to leverage rich data on customers' behavior that is commonly available to commercial banks to measure customers' risk preferences. Using real-world data from a large commercial bank, we first identify customers' risk preferences over time. Then, with the developed measure, we provide theoretical insights on how customers' risk preferences, current portfolio risk and attention (i.e., observe financial products) jointly affect their portfolio adjustment. Further, a field experiment in a marketing campaign shows that, telemarketers doubled their conversion rates with our measure. These results suggest that the risk preference measure generated by machine learning has significant theoretical and practical implications.

Bio: Sean Xu is a Professor and an Associate Dean at School of Economics and Management (SEM), Tsinghua University. He is the director of Tsinghua SEM's Research Center for AI-enabled Management (AIM). At his admin post, he supervises the school's MBA and master's programs. His current research interest focuses on digital enablement (particularly business transformation enabled by analytics in education and financial industries) and IT governance. His research has been published in *Management Science*, *MIS Quarterly*, *Information Systems Research*, *Journal of MIS*, *Strategic Management Journal*, *Contemporary Accounting Research*, and *Journal of Management Studies*, among others. He won the *MIS Quarterly* Best Paper Award for 2013. His editorial services include Senior Editor for *MIS Quarterly* (2016-present) and Associate Editor for *Information Systems Research* (2012-2015). *Information Systems Research* named him "Best Associate Editor" in 2013. He serves the president of AIS China Chapter.