ABSTRACT

Multiple informant data (MID), which are collected from more than one person when measuring a construct, are becoming increasingly popular in research methodology due to its improvement in objectivity, reliability and validity over single-source data. However, in handling the inevitable discrepancies arising from them, there is no consensus among researchers in present literature. Common methods to utilize MID include aggregation by weighted and unweighted means, combination by the "OR" and the "AND" algorithms, separation of measurement score into various components by mixing and matching contexts and perspectives, structural equation modeling and multilevel analysis. In light of this, two Monte Carlo simulation studies are conducted to systematically compare the performance of the methods mentioned across different conditions. This dissertation begins with the description of different constituents in an observed measurement collected from multiple informant data. The second part is a comprehensive review of current techniques for analyzing MID across disciplines. Then, it comes the two simulation studies, one for the fixed panel and the other for the random panel situations. Finally, practical guidelines will be provided to applied researchers based on the results obtained.

摘要

多源數據是指透過不同源頭收集得來的數據，藉以測量人的內在特質。因為它比那些從單一源頭收集的數據客觀、可信而有效，所以在應用研究上日益流行。可是對於處理數據之間無可避免出現的偏差，學術界仍未達成一致共識。普遍處理多源數據，一是先把數據整合起來再作分析，例如平均值、加權平均值、以「或法則」或者「和法則」結合；二是將目標特質從數據中提取出來，例如背景與角度混合相配原則、結構方程模型、多層模型分析。有見及此，筆者進行了兩個蒙特卡羅模擬研究，旨在評鑑這些方法在不同情況下的表現。本文先闡述多源數據的不同組件，再就文獻回顧，綜合評論以上各種方法的優劣。接著是兩個模擬研究，一個關於固定評估小組，另一個設定為隨機評估小組。最後根據研究結果，筆者希望為研究員提供實務性的指引。