

**CITY UNIVERSITY OF HONG KONG**  
**香港城市大學**

**Application of Human Resource Predictive  
Analytics: Reduce the Risk of Employee Turnover at  
Selection Using Pre-Hire Predictors of Voluntary  
Turnover of Call Center Agents**

人力資源預測性分析的應用：在揀選員工的過程中，通過對客戶服務中心人員  
自願離職的預測性分析以降低流失員工的風險

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## **ABSTRACT**

The focus of this study is to identify pre-hire predictors of voluntary turnover to screen out job applicants at higher risk of turnover at call centers in the Asia Pacific context. Voluntary employee turnover is costly and disruptive to business. Retention ought to begin from selection and getting selection right is one of the best interventions to reduce turnover.

While there are numerous studies on turnover, very few use biographical data (biodata) to analyze “stayers” and “leavers” at selection in order to minimize turnover. In addition, research into the prevention or reduction of employee turnover at selection is not extensive, especially in the geographical context of Asia Pacific. A key aim of this research is to further the case of using a key aim is to further the case of using biodata and personality traits of Five Factor Model as pre-hire predictors of voluntary employee turnover in call centers. This study uses turnover intention as a proxy for actual voluntary turnover as the dependent variable. The independent variables are the pre-hire predictors of voluntary turnover and personality traits from the Five Factor Model. The biodata as pre-hire variables are required to be factual, verifiable, theory-based and legitimate.

The sample consisted of 442 call center agents from a multi-national logistics company. The biodata found to be significant pre-hire predictors of turnover of call center agents are: a) number of previous employers in the past five years, b) provided additional information (at the time of application) and c) reapplied for a job in the company. In addition, the personality traits of emotional stability, openness to experience and conscientiousness are also significant pre-hire predictors for the combined sample from China and Malaysia. Interestingly, the personality trait of agreeableness is not a significant predictor. Another surprise finding is that none of the personality traits are significant for the Malaysia sub-group and thus, though previous research found the personality traits as significant predictor of turnover intention or turnover, this study could be the first that found otherwise.

***Key words*** biodata; personality traits; pre-hire predictors; selection; turnover; call centers; human resources analytics.