



## Modeling the facets of burnout in Lisbon airport border officers using PLSc-SEM estimator

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### ABSTRACT

Border officers experience stressful moments during the working day at the border point at Lisbon airport (Portugal) that can lead to “emotional exhaustion,” which is the core component of burnout, and relates with “cognitive fatigue (weariness)” and “physical fatigue.” These theoretical concepts cannot be measured (or observed) directly by what are considered latent variables/constructs that are available in Shirom-Melamed Burnout Measure (SMBM). These constructs are, however, operationalized by the questions available in the SMBM, which correspond to observed variables (or manifest variables) expressed in an ordinal scale of seven categories. This questionnaire, reliable and internationally validated, was used in our research and considering the specialized literature, we proposed a hypothetical structural path model that expresses a priori perceptions about the causal relationships between the mentioned latent constructs, where “physical fatigue” is the target construct. A reflective model was estimated based on the sample of primary data and using a Variance-Covariance estimator of Structural Equations Modeling (VB-SEM), the consistent Partial Least Squares (PLSc), that corrects for bias to consistently estimate SEM's with common factors. The results obtained allow a better understanding of the profile and characteristics of Portuguese border officers who work at Lisbon airport, as well as reveal that the latent exogenous construct “emotional exhaustion” has a high positive direct effect on the “cognitive fatigue,” and through this latter (mediator construct), an indirect effect on the endogenous construct “physical fatigue.” In turn, “cognitive fatigue” has the greatest positive direct effect on “physical fatigue.” The biggest difference identified was between the direct effect of “Emotional exhaustion” on “Physical fatigue,” which is higher for workers with more years of service, as expected. However, the multigroup analysis (using the nonparametric Permutation test) showed that this difference was not statistically significant.

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## 1. Introduction

The Foreigners and Borders Service (SEF - Serviço de Estrangeiros e Fronteiras) is a Portuguese security service that controls the movement of people at the borders, their stay and the activities of foreigners in Portuguese territory. At the Lisbon airport border point, the