

A Machine-Learning Approach to Employee Change Innovation: Roles of Adaptability and Job Crafting

Zhang. Wei¹, Selin. Karaca^{2*}, Priyanka. Deshmukh³

¹ School of Business Administration, Zhejiang University, Hangzhou, China

² Department of Business Administration and Management, Middle East Technical University, Ankara, Turkey

³ Department of Human Resource Management and Organizational Behavior, Indian Institute of Management Calcutta, Kolkata, India

* Corresponding author email address: selin.karaca@metu.edu.tr

Editor

Arpana Rai
Assistant Professor, Indian Institute
of Management, Udaipur, Mumbai,
India
arpana.raiiimu.ac.in

Reviewers

Reviewer 1: Mehrdad Bayat
Assistant Professor, Department of Management, Payam Noor University, Tehran,
Iran.
Email: bayatmehrdad60@pnu.ac.ir
Reviewer 2: Ali Sargolzaie
Assistant Professor, Department of Management, Zahedan Branch, Islamic Azad
University, Zahedan, Iran.
Email: a.sargolzaie@iauzah.ac.ir

1. Round 1

1.1. Reviewer 1

Reviewer:

The paper states an aim “to... predict employee change innovation... delineating... non-linear predictive roles of psychological adaptability and multidimensional job crafting behaviors”, but explicit RQs and/or hypotheses are not clearly presented in the retrieved sections. Even for prediction-focused studies, you can specify confirmatory expectations (e.g., job crafting dimensions will rank above demographics; adaptability facets will add incremental predictive utility), which improves coherence and reduces the appearance of post-hoc storytelling.

The study uses a purposeful plus snowball approach across Turkish organizations undergoing transitions. This is understandable for reach, but it raises selection bias risk (e.g., more networked, change-involved, or innovation-inclined employees). The manuscript should explicitly discuss external validity limits and, ideally, provide evidence that key distributions (industry, region, role level) are not severely skewed.

The discussion states that increasing structural job resources is the top predictor, followed by adaptability confidence, then challenging demands and adaptability control; demographics add little. Yet the reported importance shares are truncated (“accounting for ... at .”), and the paper should clarify which importance metric is used (gain, permutation importance, SHAP) and how correlated predictors were handled, because naive importance can be unstable and misleading. Adding SHAP summary plots and partial dependence/ICE (with uncertainty) would materially strengthen the interpretive validity.

Authors revised the manuscript and uploaded the new document.

1.2. Reviewer 2

Reviewer:

When asserting that most prior work focuses on incremental rather than breakthrough innovation, the authors should provide at least one systematic review or quantitative summary demonstrating this imbalance.

The retrieved methods state “The final sample consisted of precisely valid responses from full-time employees,” but the exact n is missing in the extract. For a predictive ML paper, n , missingness handling, class/score distribution of the outcome, and descriptive statistics by key demographics are essential to judge model stability and whether the test-set performance is credible.

The constructs (employee change innovation; adaptability dimensions such as confidence/control; job crafting dimensions including increasing structural resources and challenging demands) are mentioned, but scale sources, item counts, sample items, response anchors, scoring, and reliability/validity evidence are not shown in the retrieved sections. Please add a measures table (construct \rightarrow source \rightarrow items \rightarrow example item $\rightarrow \alpha/\omega \rightarrow$ CFA/HTMT where relevant), because model performance is only as good as measurement quality.

The paper argues ML is needed and reports that GBM achieved “nearly half of the variance” explained on “unseen testing data”, but the exact R^2 value is not visible in the excerpt and the validation design is unclear. Please specify: train/validation/test split strategy (random vs. group-aware), cross-validation scheme, hyperparameter tuning method, leakage prevention, preprocessing pipeline, and a baseline model (e.g., linear regression/elastic net) so readers can quantify the incremental benefit of GBM.

Authors revised the manuscript and uploaded the new document.

2. Revised

Editor’s decision after revisions: Accepted.

Editor in Chief’s decision: Accepted.