

Predicting Fertility Intentions Using Cultural Norms, Economic Security, and Relationship Satisfaction via a Machine Learning Approach


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1. Round 1

1.1. Reviewer 1

Reviewer:

The sentence “Data were collected using standardized instruments including the Cultural Values Scale, Economic Stability Index, Dyadic Adjustment Scale, and a Fertility Intention Scale” requires explicit citation and psychometric justification within the current sample; report Cronbach’s alpha, composite reliability, and confirmatory factor analysis results rather than relying solely on prior studies.

The statement “Relationship satisfaction and quality further contribute to fertility intentions” requires greater analytical specificity; indicate whether dyadic data were collected from both partners or only individual self-reports, as this has implications for measurement validity and potential common method bias.

In the Methods section, the sentence “Data preprocessing included normalization, missing data imputation, and categorical encoding” is insufficiently detailed; please specify the imputation technique (e.g., MICE, mean substitution), normalization method (e.g., min-max scaling vs. z-score), and encoding scheme (e.g., one-hot encoding), as these choices influence model performance.

Response: Revised and uploaded the new document.

1.2. Reviewer 2

Reviewer:

In the Introduction, the statement “Fertility intentions represent a central construct in demographic, sociological, and psychological research” is conceptually broad but lacks theoretical anchoring; it would benefit from explicit linkage to a formal framework such as the Theory of Planned Behavior or Life Course Theory to strengthen conceptual coherence.

The paragraph beginning “Cultural norms constitute a foundational dimension shaping fertility intentions” presents general claims without operational clarity; please specify how “cultural norms” were dimensionally modeled (e.g., collectivism vs. traditionalism) and whether these subdimensions were analyzed separately or aggregated.

In the sentence “Economic security represents another critical determinant of fertility intentions,” the construct is treated as unidimensional; however, the measurement tool appears multidimensional—please clarify whether latent subcomponents (income stability, employment security, perceived future prospects) were modeled independently or collapsed into a composite score.

Response: Revised and uploaded the new document.

2. Revised

Editor’s decision: Accepted.

Editor in Chief’s decision: Accepted.