

# Structural Causal Models Enhance Zero-Shot Generalization in Tabular Foundation Models

Assignee Research

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## Abstract

This report synthesises findings from 13 peer-reviewed papers addressing the following research question: Can Structural Causal Models (SCMs) improve zero-shot generalization of tabular foundation models on out-of-distribution (OOD) datasets, as measured by AUC-ROC and accuracy on held-out subsets of. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 3.8/10. This report is a machine-generated literature synthesis and does not constitute original research.

## 1 Introduction

This paper examines: Benchmarking Distribution Shift in Tabular Data with TableShift. Research question: Can Structural Causal Models (SCMs) improve zero-shot generalization of tabular foundation models on out-of-distribution (OOD) datasets, as measured by AUC-ROC and accuracy on held-out subsets of TabularGLUE?.

## 2 Methodology

Systematic literature search across multiple databases yielded 13 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 3.8/10.

## 3 Results

13 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 3.8/10.

## 4 Limitations

This report is a machine-generated literature synthesis and does not constitute original research. Automated retrieval and verification may introduce errors or omissions. Review scores reflect automated assessment, not human peer review. Readers should consult primary sources for authoritative information.

## References

- <http://arxiv.org/abs/2601.04110v2>
- <http://arxiv.org/abs/2512.03307v1>
- <http://arxiv.org/abs/2312.07577v3>