

SEM Structural Model

Test: SEM Structural Model

Design: Predictive paths to the academic construct score after the measurement model is fixed.

Variables: Academic score, Social score, studytime, failures

Null hypothesis: All structural slopes are zero and academic R-squared is zero.

Formula: $\text{Academic} = \beta_0 + \beta_1 \text{Social} + \beta_2 \text{Studytime} + \beta_3 \text{Failures} + \text{zeta}$.

Source rows: 649

Calculated metrics:

social_path: -0.0470898201207388

studytime_path: 0.203047070350936

failures_path: -0.372573999374448

social_p_value: 0.181481899955996

academic_r_squared: 0.208490582064094

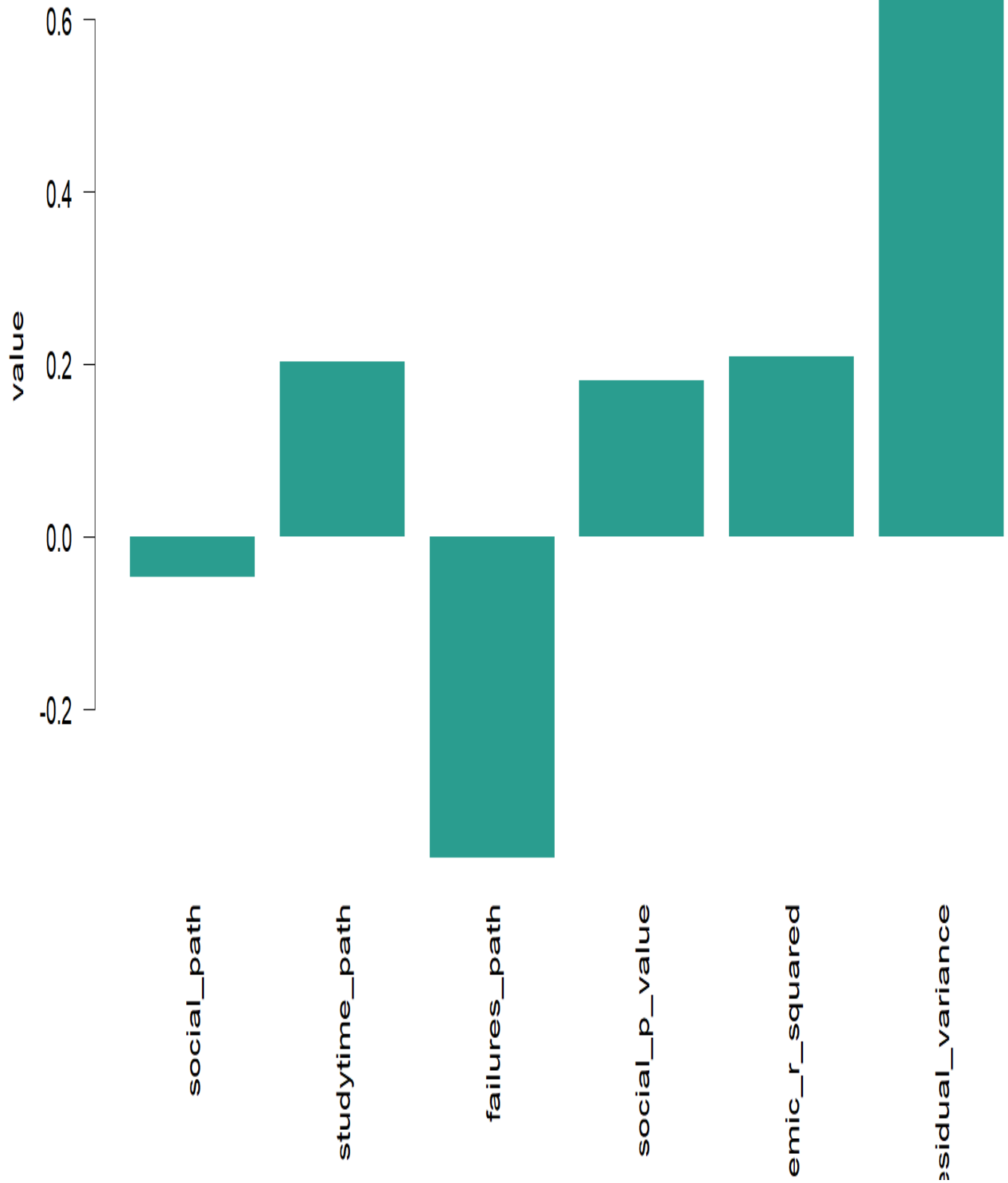
residual_variance: 0.791509417935906

Interpretation:

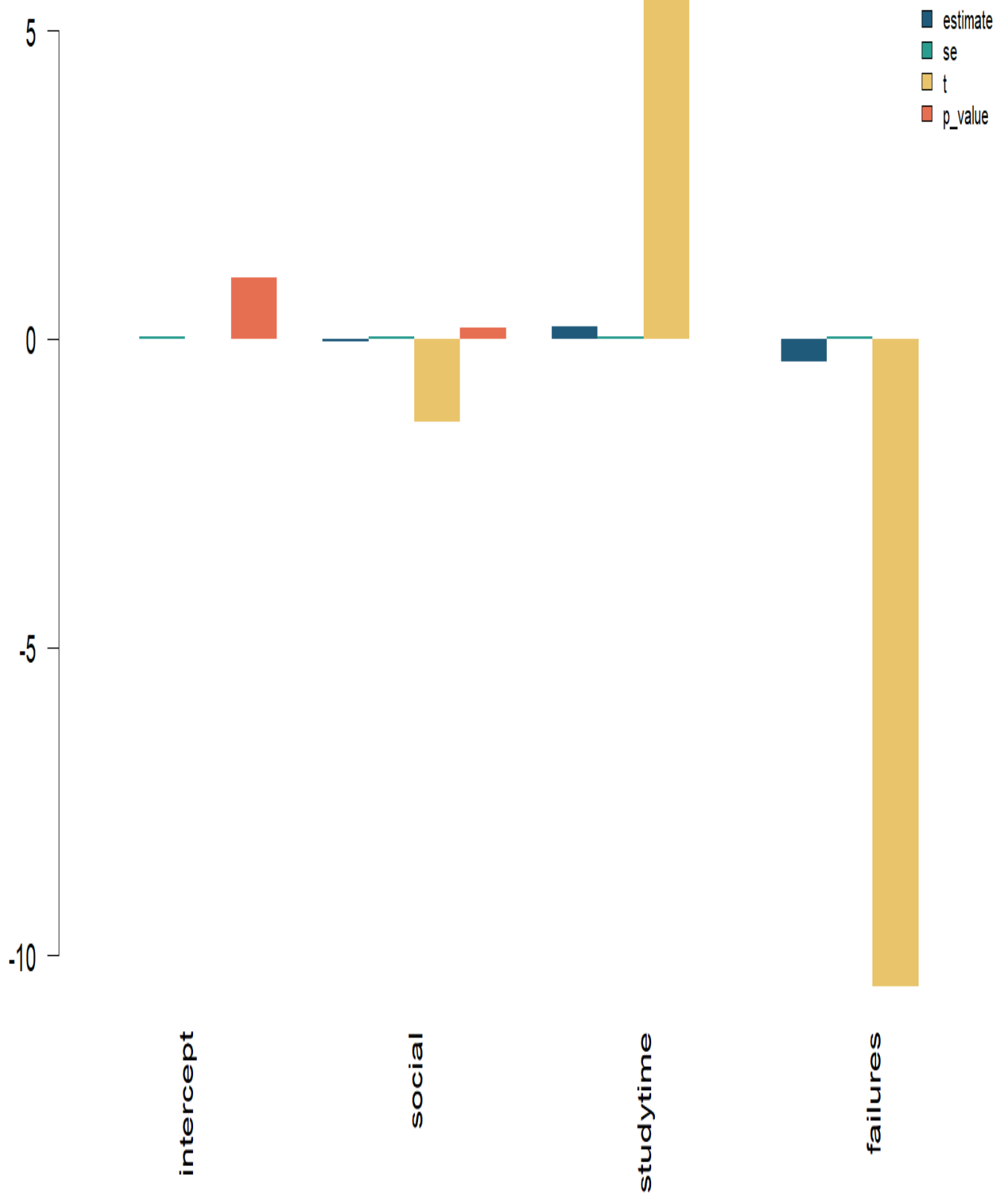
The structural model isolates predictive paths.

R2 0.208490582064094

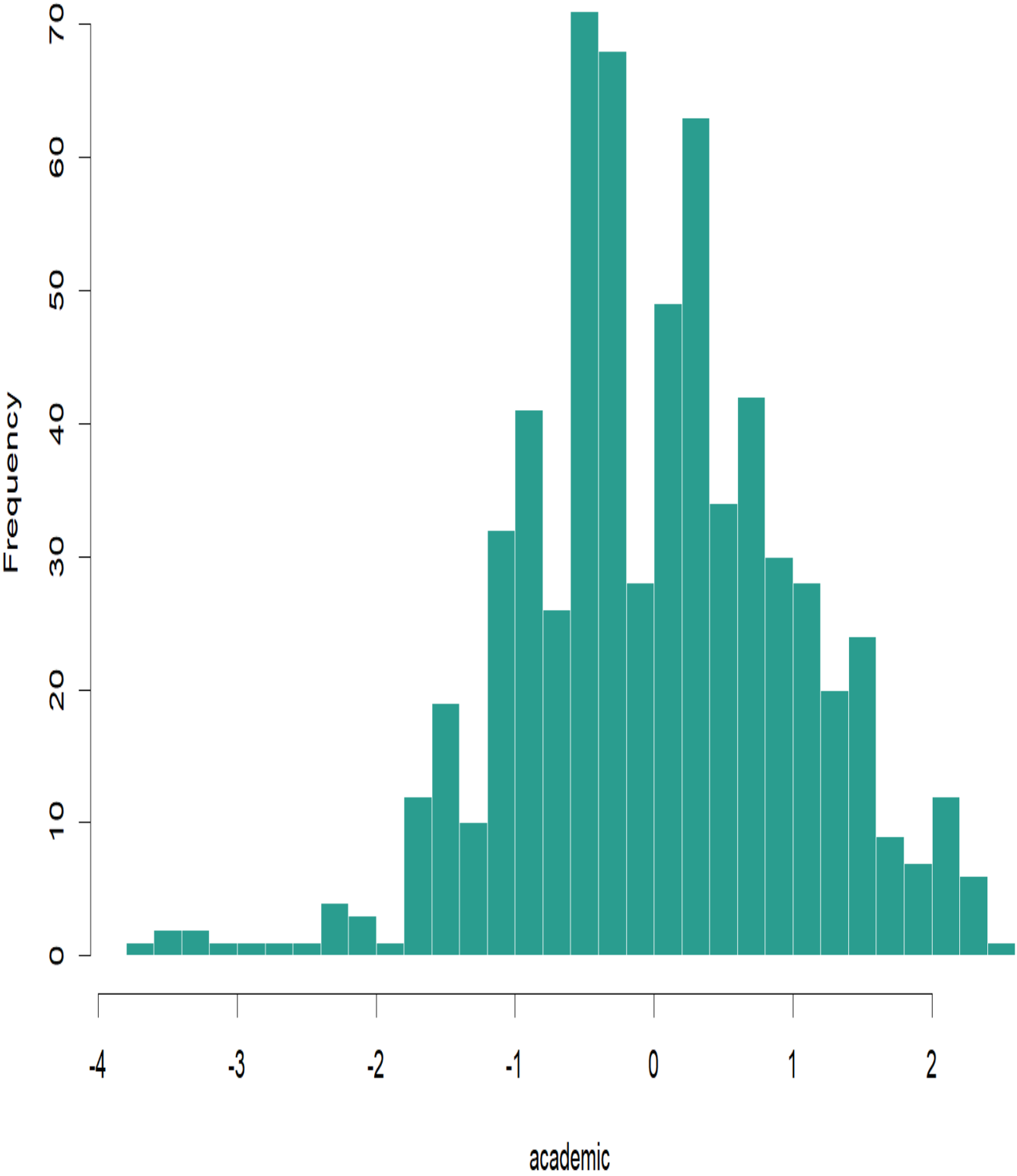
SEM Structural Model - primary metrics



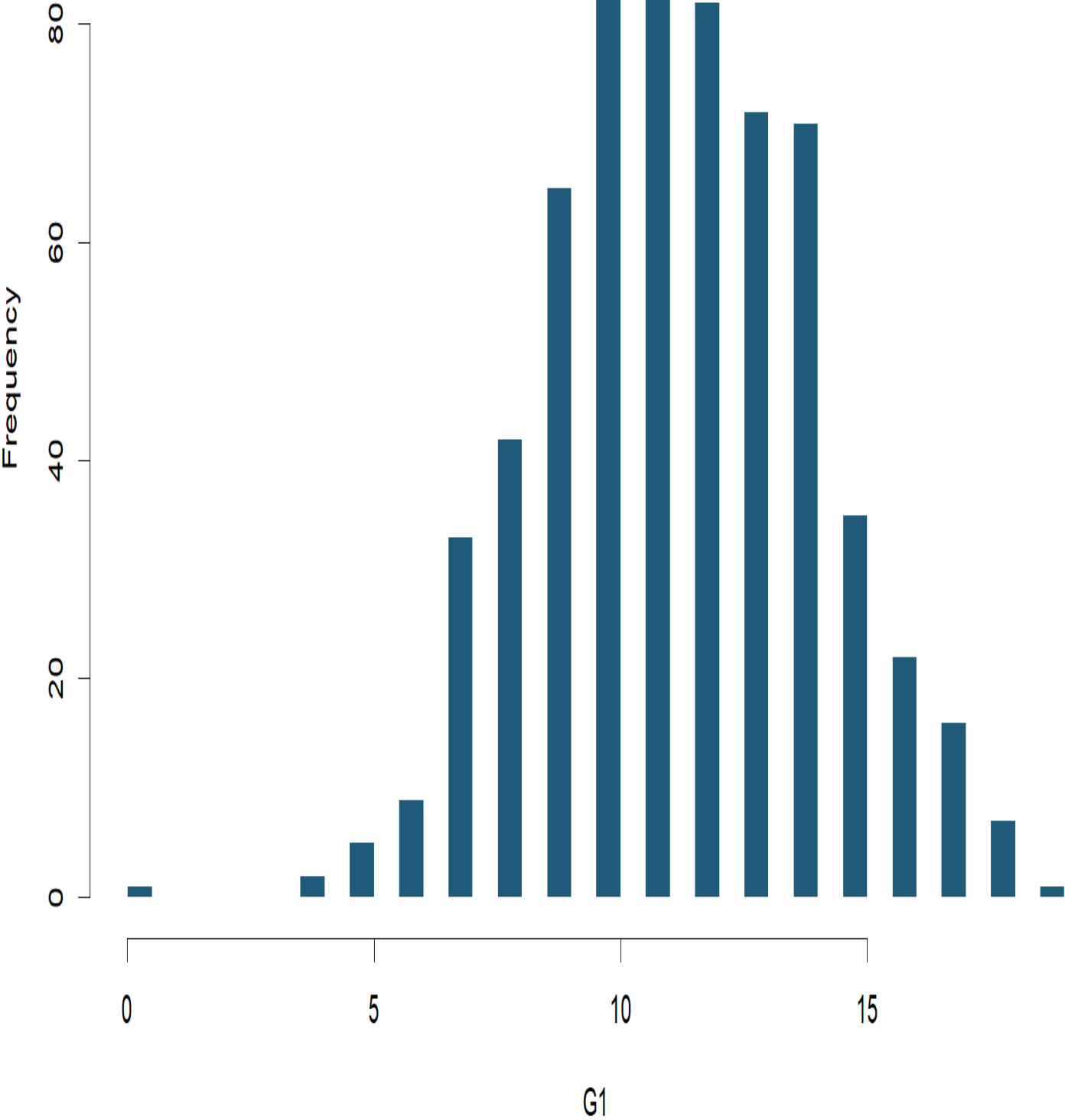
SEM Structural Model - structural model coefficients



SEM Structural Model - structural model scores



SEM Structural Model source G1



SEM Structural Model verified results

