

SEM Model Fit Index Panel

Standalone verified Python analysis

Test: SEM Model Fit Index Panel

Design: Exact, incremental, residual, parsimony-adjusted, and information-criterion fit measures.

Variables: G1, G2, G3, famrel, freetime, goout

Null hypothesis: The covariance model has no acceptable fit by any declared index family.

Formula: Panel includes chi-square, CFI/TLI/NFI, RMSEA/SRMR, GFI/AGFI, AIC/BIC.

Source rows: 649

Calculated metrics:

chi_square: 13.76397207713822

df: 8

cfi: 0.9973982062491278

tli: 0.9951216367171145

rmsea: 0.03334482463134081

srmr: 0.03566318315739957

gfi: 0.9926350185704358

Independent reference values:

chi_square: 13.76397207713822

df: 8

cfi: 0.9973982062491278

tli: 0.9951216367171145

rmsea: 0.03334482463134081

srmr: 0.03566318315739957

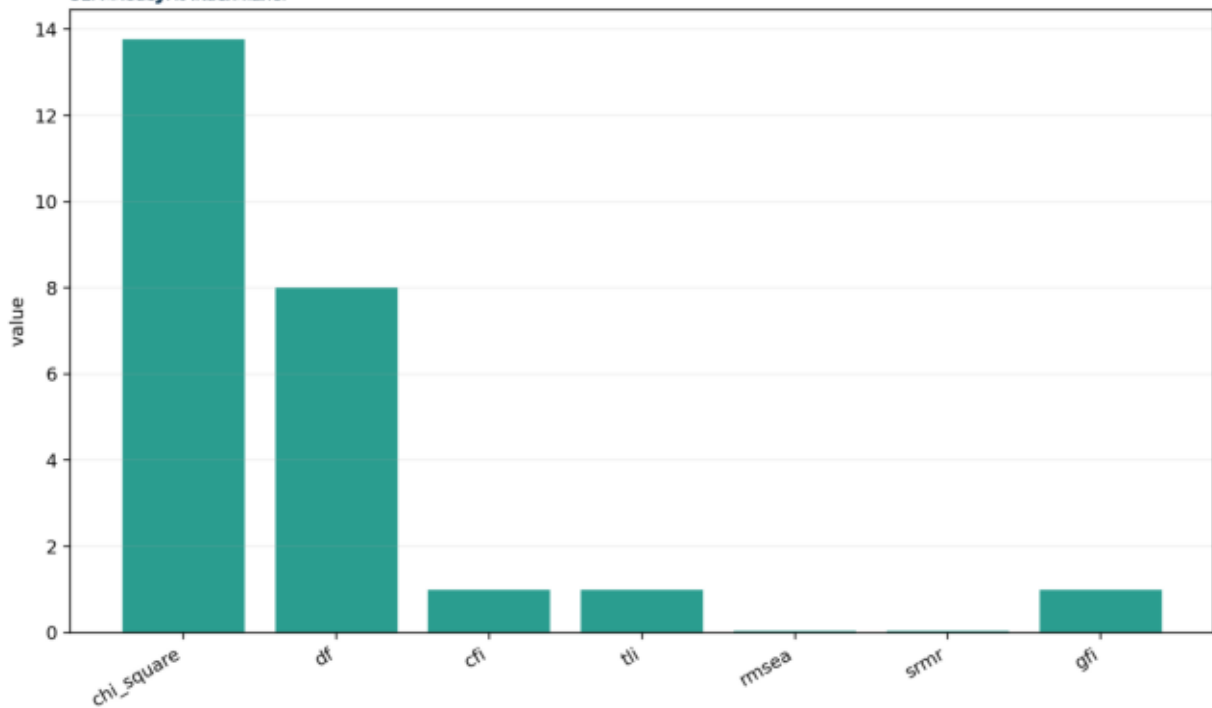
gfi: 0.9926350185704358

Interpretation:

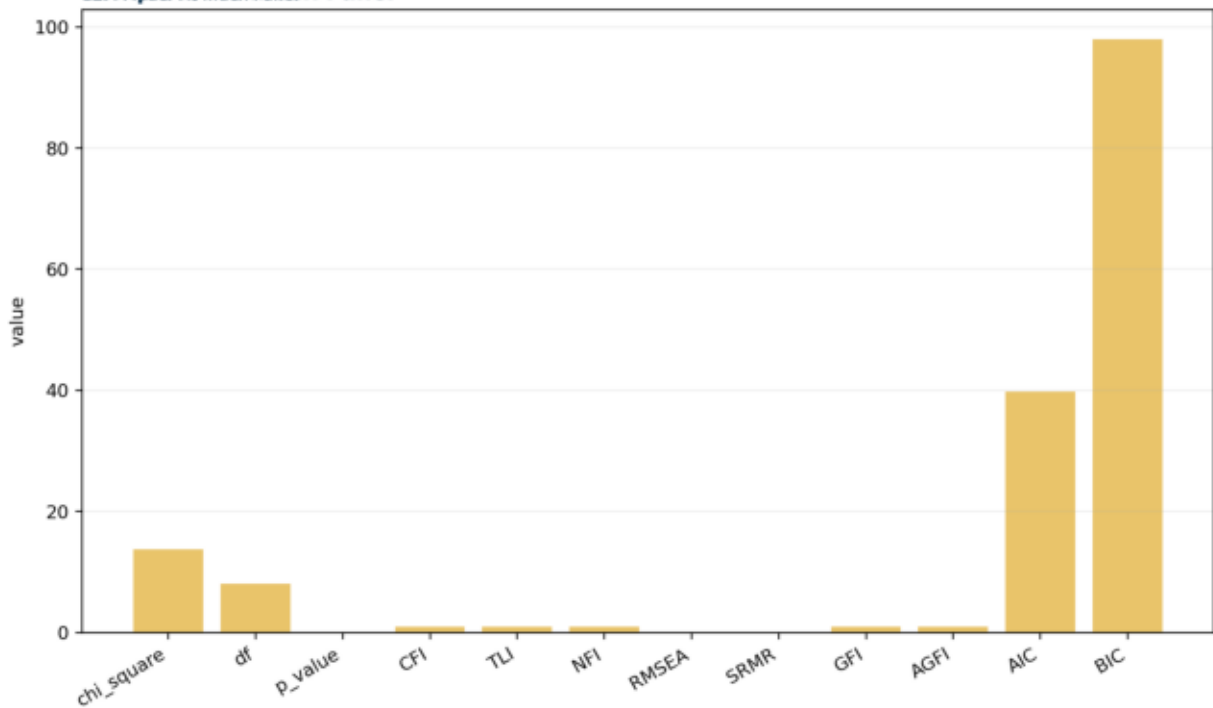
The panel keeps exact, incremental, residual, absolute, and parsimony fit distinct.

CFI=0.997398; RMSEA=0.033345.

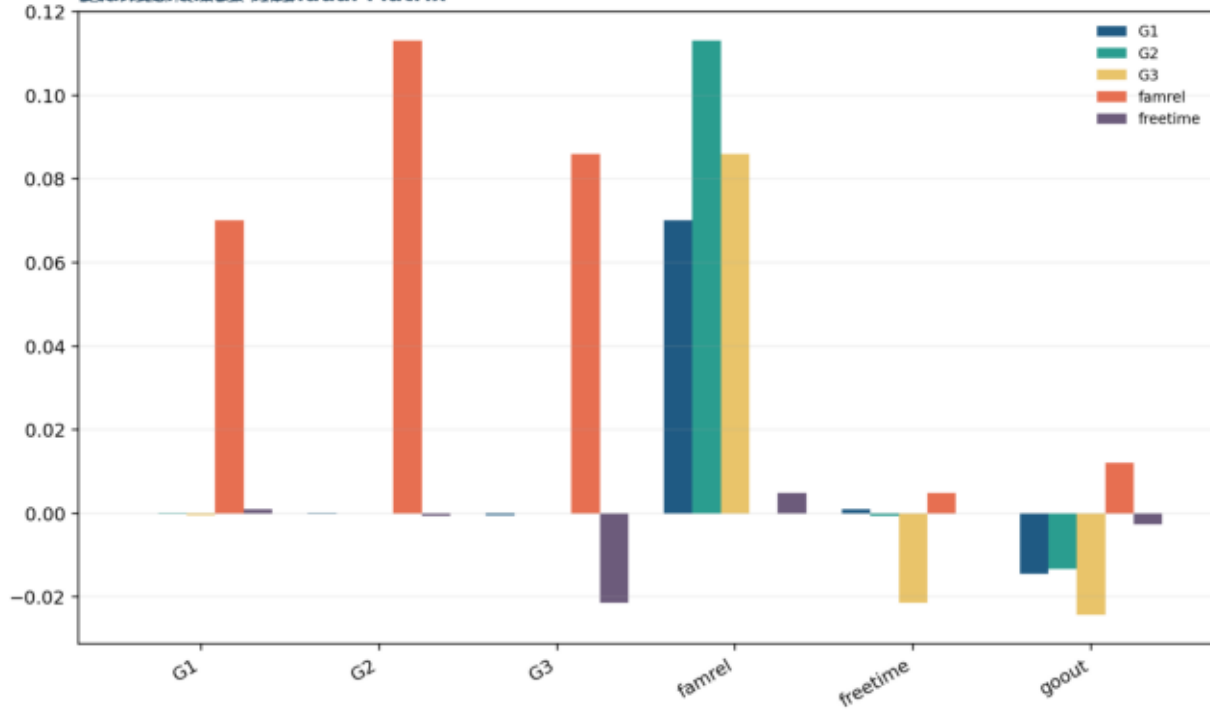
Primary Metrics



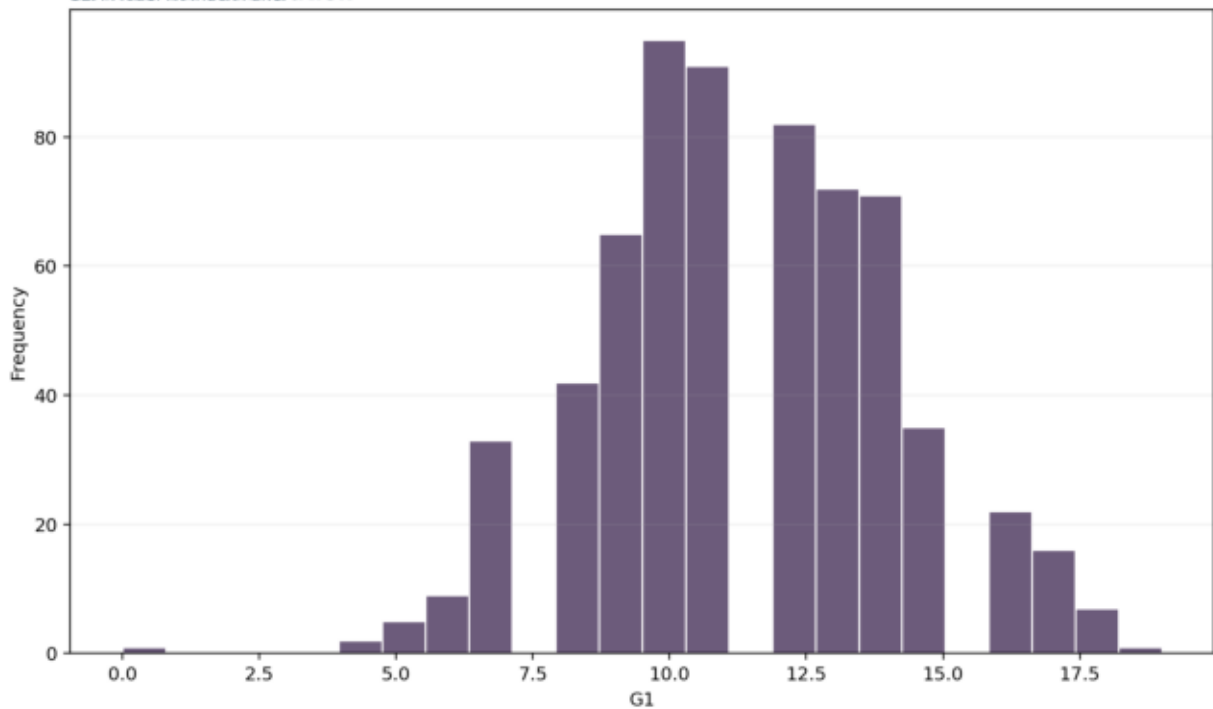
Complete Fit Index Panel



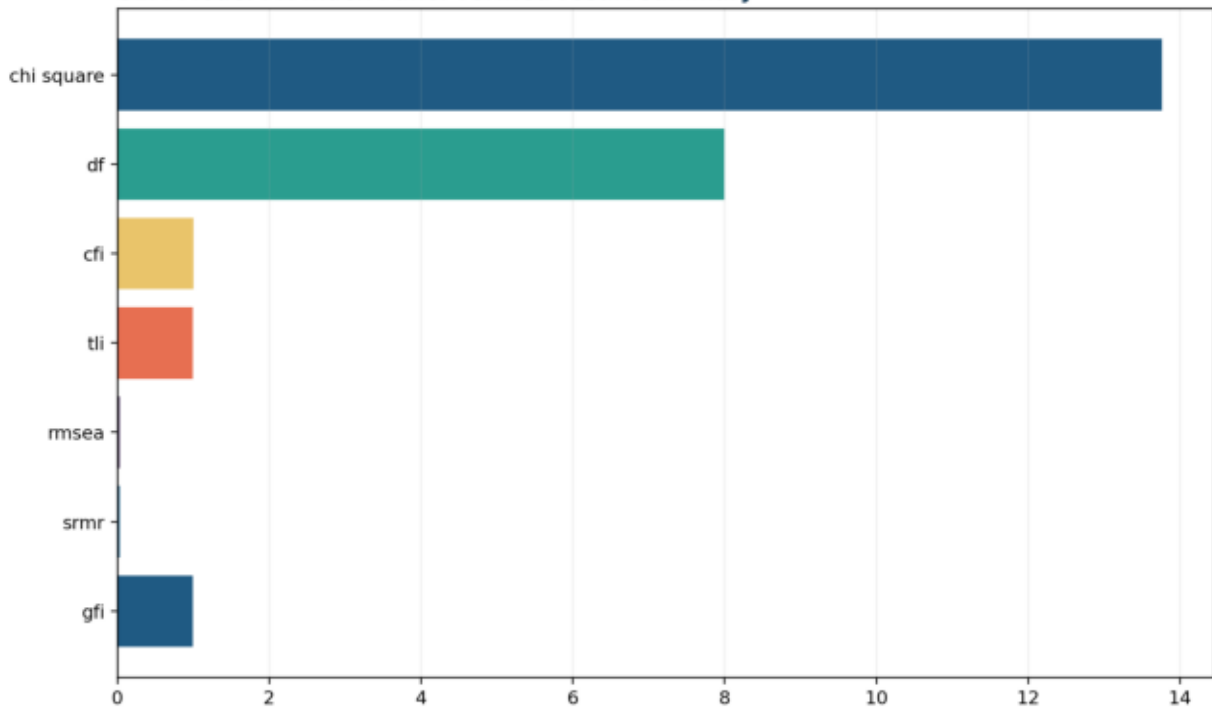
Standardized Residual Matrix



Source G1 Distribution



SEM Model Fit Index Panel verified result summary



Primary Metrics

metric	value
chi_square	13.764
df	8
cfi	0.997398
tli	0.995122
rmsea	0.0333448
srmr	0.0356632
gfi	0.992635

Complete Fit Index Panel

index	value
chi_square	13.764
df	8
p_value	0.0881286
CFI	0.997398
TLI	0.995122
NFI	0.993829
RMSEA	0.0333448
SRMR	0.0356632
GFI	0.992635
AGFI	0.980667
AIC	39.764
BIC	97.9446

Fit Index Families

family	index
exact	chi-square
incremental	CFI
incremental	TLI
residual	RMSEA
residual	SRMR
absolute	GFI
parsimony	AGFI

Standardized Residual Matrix

item	G1	G2	G3	famrel	freetime	goout
G1	9.82827e-09	0.000158759	-0.000478078	0.0700397	0.000923277	-0.0144466
G2	0.000158759	6.59088e-08	-5.69385e-06	0.113189	-0.000677231	-0.0132537
G3	-0.000478078	-5.69385e-06	1.85794e-07	0.0859262	-0.0213567	-0.0243314
famrel	0.0700397	0.113189	0.0859262	9.66359e-09	0.00483956	0.0120124
freetime	0.000923277	-0.000677231	-0.0213567	0.00483956	6.20226e-08	-0.00260153
goout	-0.0144466	-0.0132537	-0.0243314	0.0120124	-0.00260153	8.58988e-08