

Adjusted Goodness-of-Fit Index

Standalone verified Python analysis

Test: Adjusted Goodness-of-Fit Index

Design: Degrees-of-freedom-adjusted absolute fit for the two-factor CFA.

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

Null hypothesis: The adjusted goodness-of-fit does not exceed the conventional adequate-fit region.

Formula: $AGFI = 1 - [p(p+1)/(2df)](1-GFI)$.

Source rows: 649

Calculated metrics:

agfi: 0.980666923747394

gfi: 0.9926350185704358

df: 8

observed_moments: 21

Independent reference values:

agfi: 0.980666923747394

gfi: 0.9926350185704358

df: 8

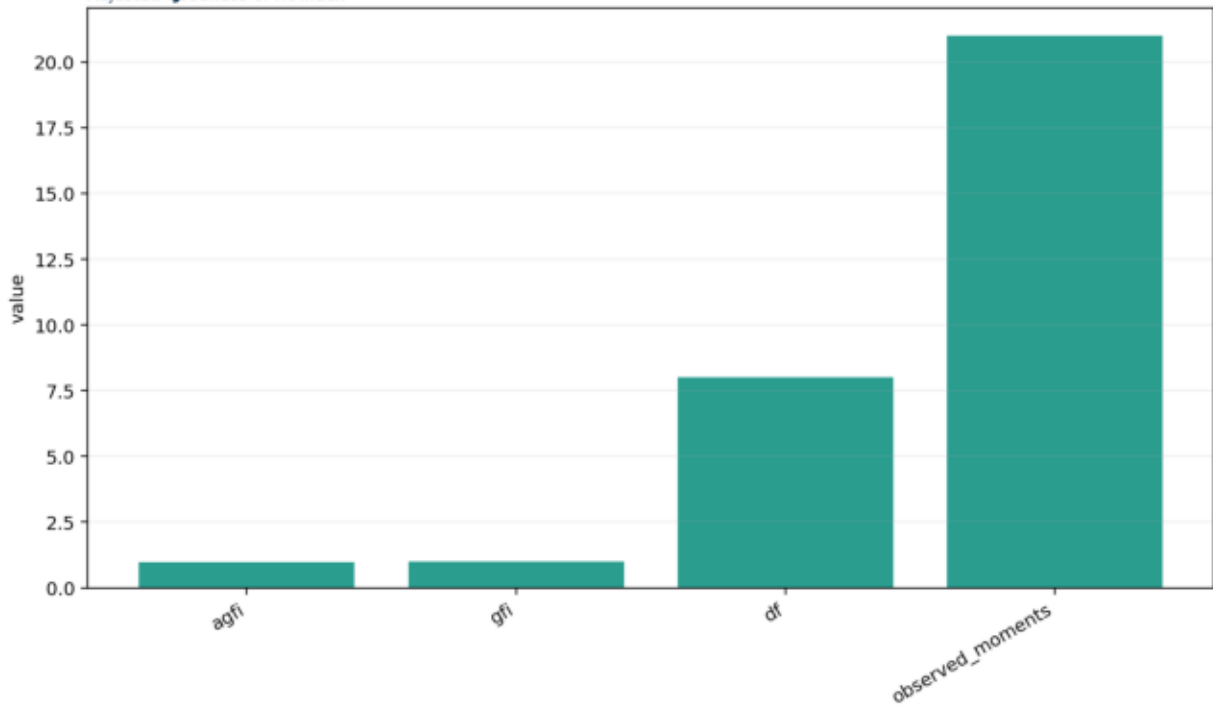
observed_moments: 21

Interpretation:

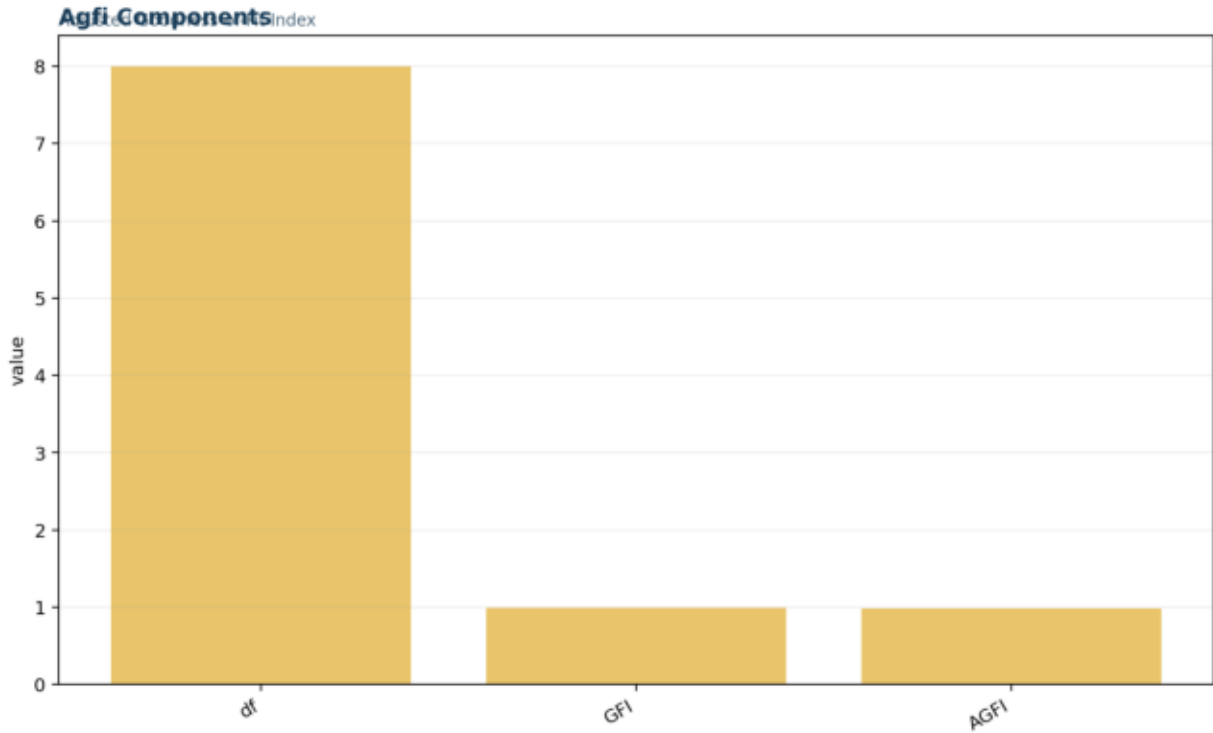
AGFI applies the covariance-model degrees-of-freedom penalty to GFI.

AGFI=0.980667 after adjusting 0.992635 GFI over 8 df.

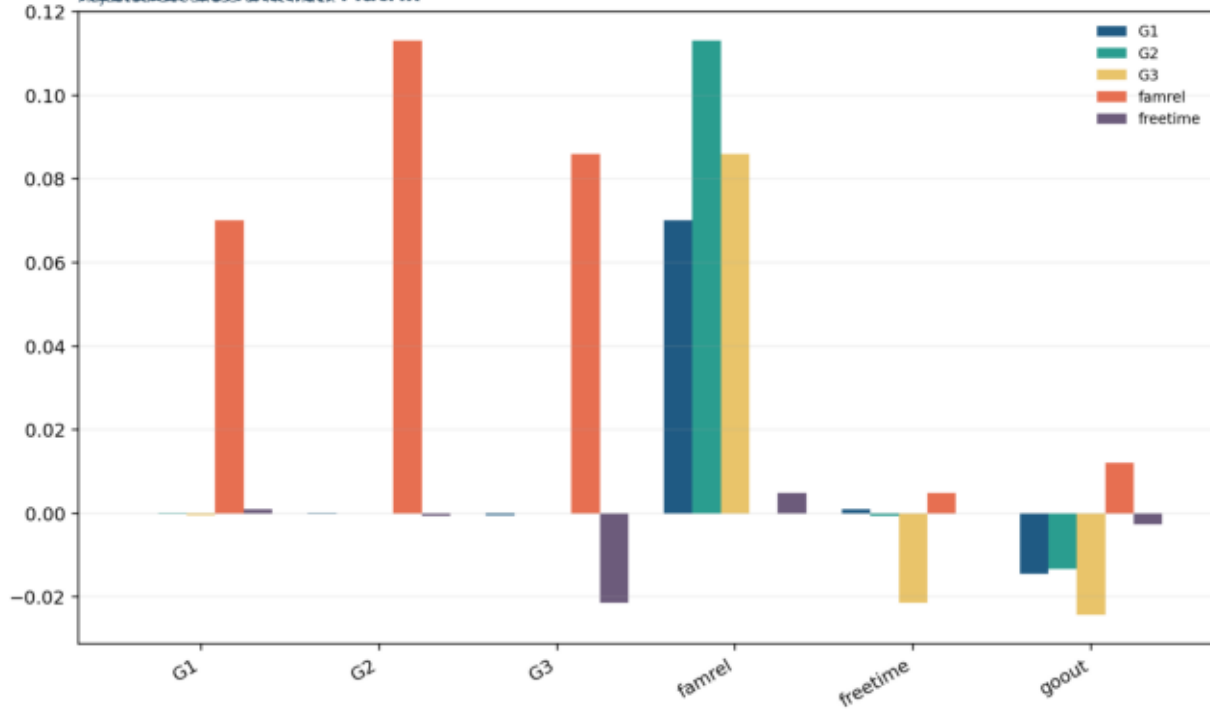
Primary Metrics



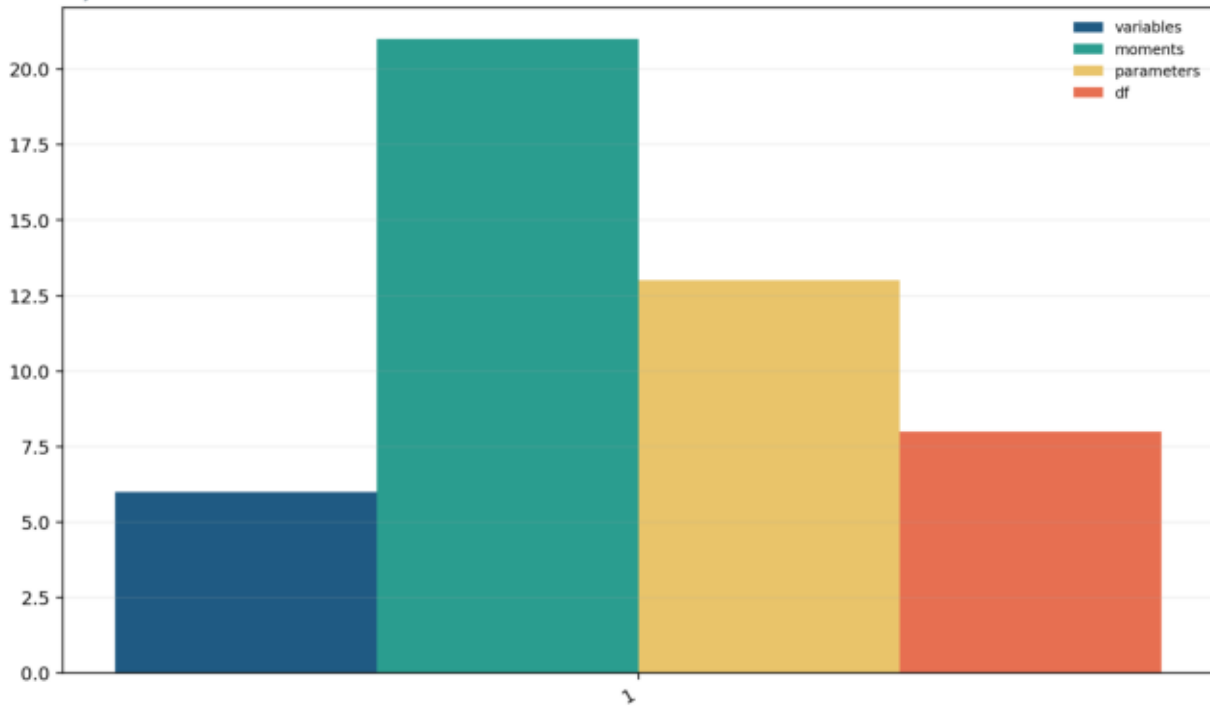
Agfi Components



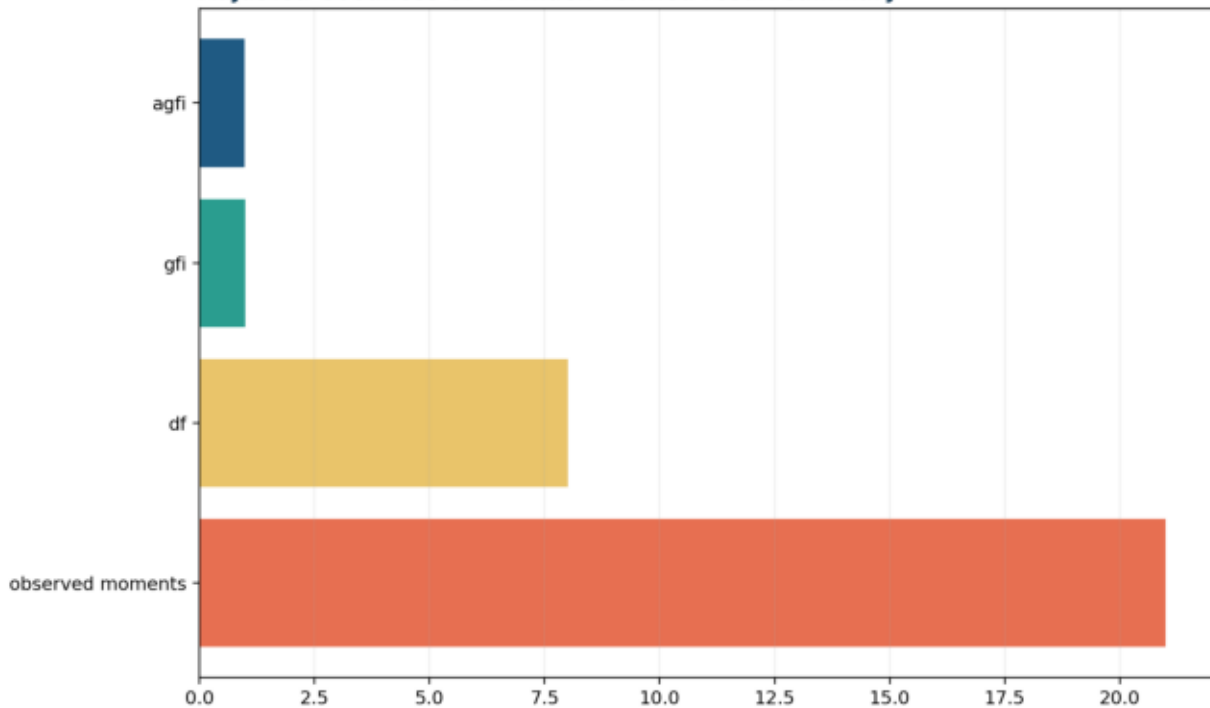
Residual Correlation Matrix



Model Dimensions



Adjusted Goodness-of-Fit Index verified result summary



Primary Metrics

metric	value
agfi	0.980667
gfi	0.992635
df	8
observed_moments	21

Agfi Components

index	value
df	8
GFI	0.992635
AGFI	0.980667

Residual Correlation 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

Model Dimensions

variables	moments	parameters	df
6	21	13	8