**After removing SE\_S**

latents.modelfive <- 'SALES =~ MasteryGoals\_S + TaskValue

PerfGoals =~ PerfAvGoals + PerfAppGoals

MG\_SE =~ SelfEfficacy\_P + MasteryGoals\_P'

lavaan 0.6-7 ended normally after 41 iterations

Estimator ML

Optimization method NLMINB

Number of free parameters 15

Number of observations 358

Model Test User Model:

Standard Robust

Test Statistic 27.768 23.815

Degrees of freedom 6 6

P-value (Chi-square) 0.000 0.001

Scaling correction factor 1.166

Satorra-Bentler correction

lavaan 0.6-7 ended normally after 41 iterations

Estimator ML

Optimization method NLMINB

Number of free parameters 15

Number of observations 358

Model Test User Model:

Standard Robust

Test Statistic 27.768 23.815

Degrees of freedom 6 6

P-value (Chi-square) 0.000 0.001

Scaling correction factor 1.166

Satorra-Bentler correction

Model Test Baseline Model:

Test statistic 1589.972 1106.733

Degrees of freedom 15 15

P-value 0.000 0.000

Scaling correction factor 1.437

User Model versus Baseline Model:

Comparative Fit Index (CFI) 0.986 0.984

Tucker-Lewis Index (TLI) 0.965 0.959

Robust Comparative Fit Index (CFI) 0.987

Robust Tucker-Lewis Index (TLI) 0.967

Loglikelihood and Information Criteria:

Loglikelihood user model (H0) -1652.977 -1652.977

Loglikelihood unrestricted model (H1) -1639.093 -1639.093

Akaike (AIC) 3335.954 3335.954

Bayesian (BIC) 3394.162 3394.162

Sample-size adjusted Bayesian (BIC) 3346.575 3346.575

Root Mean Square Error of Approximation:

RMSEA 0.101 0.091

90 Percent confidence interval - lower 0.065 0.057

90 Percent confidence interval - upper 0.140 0.128

P-value RMSEA <= 0.05 0.012 0.025

Robust RMSEA 0.098

90 Percent confidence interval - lower 0.059

90 Percent confidence interval - upper 0.141

Standardized Root Mean Square Residual:

SRMR 0.015 0.015

Parameter Estimates:

Standard errors Robust.sem

Information Expected

Information saturated (h1) model Structured

Latent Variables:

Estimate Std.Err z-value P(>|z|)

SALES =~

MasteryGoals\_S 1.000

TaskValue 0.952 0.045 21.326 0.000

PerfGoals =~

PerfAvGoals 1.000

PerfAppGoals 1.421 0.362 3.922 0.000

MG\_SE =~

SelfEfficacy\_P 1.000

MasteryGoals\_P 1.093 0.074 14.736 0.000

Covariances:

Estimate Std.Err z-value P(>|z|)

SALES ~~

PerfGoals 0.067 0.032 2.128 0.033

MG\_SE 0.197 0.022 8.890 0.000

PerfGoals ~~

MG\_SE 0.050 0.029 1.738 0.082

Variances:

Estimate Std.Err z-value P(>|z|)

.MasteryGoals\_S 0.011 0.014 0.786 0.432

.TaskValue 0.058 0.015 3.963 0.000

.PerfAvGoals 0.299 0.189 1.578 0.115

.PerfAppGoals -0.061 0.377 -0.161 0.872

.SelfEfficacy\_P 0.134 0.020 6.859 0.000

.MasteryGoals\_P 0.056 0.028 2.028 0.043

SALES 0.344 0.046 7.463 0.000

PerfGoals 0.731 0.195 3.749 0.000

MG\_SE 0.288 0.034 8.402 0.000

**Summary of CFA Models**

|  |  |  |
| --- | --- | --- |
| Model | Fit Indices | Notes |
| latents.modelthree <- 'SALES =~ SelfEfficacy\_S + MasteryGoals\_S + TaskValue  PerfGoals =~ PerfAvGoals + PerfAppGoals  MG\_SE =~ SelfEfficacy\_P + MasteryGoals\_P | Comparative Fit Index (CFI) 0.967 0.953  Tucker-Lewis Index (TLI) 0.937 0.911  RMSEA 0.132 | Having SALES as a construct and PALS as a separate one, while perf. Goals as one.  The mod. Indices showed a tension between SE\_S and SE\_P so I will put them together under one factor in model 4 |
| latents.modelfour <- 'SALES =~ MasteryGoals\_S + TaskValue  PerfGoals =~ PerfAvGoals + PerfAppGoals  MG\_SE =~ SelfEfficacy\_P + MasteryGoals\_P + SelfEfficacy\_S ' | Comparative Fit Index (CFI) 0.883 0.844  Tucker-Lewis Index (TLI) 0.776 0.702  0.132 | so I tried putting SE\_S and SE\_P together, but the fit decreases |
| latents.modelfive <- 'SALES =~ MasteryGoals\_S + TaskValue  PerfGoals =~ PerfAvGoals + PerfAppGoals  MG\_SE =~ SelfEfficacy\_P + MasteryGoals\_P' | Comparative Fit Index (CFI) 0.986 0.984  Tucker-Lewis Index (TLI) 0.965 0.959  RMSEA 0.101 0.091 | In this model I removed SE\_S |
|  |  |  |
|  |  |  |
|  |  |  |