Raw output modellen

Estimator ML

Optimization method NLMINB

Number of model parameters 27

Number of equality constraints 3

Number of observations 8039

Model Test User Model:

Test statistic 707.808

Degrees of freedom 30

P-value (Chi-square) 0.000

Model Test Baseline Model:

Test statistic 3906.151

Degrees of freedom 50

P-value 0.000

User Model versus Baseline Model:

Comparative Fit Index (CFI) 0.824

Tucker-Lewis Index (TLI) 0.707

Loglikelihood and Information Criteria:

Loglikelihood user model (H0) -60440.001

Loglikelihood unrestricted model (H1) -60086.097

Akaike (AIC) 120928.002

Bayesian (BIC) 121095.811

Sample-size adjusted Bayesian (BIC) 121019.544

Root Mean Square Error of Approximation:

RMSEA 0.053

90 Percent confidence interval - lower 0.050

90 Percent confidence interval - upper 0.056

P-value RMSEA <= 0.05 0.069

Standardized Root Mean Square Residual:

SRMR 0.026

Parameter Estimates:

Standard errors Bootstrap

Number of requested bootstrap draws 100

Number of successful bootstrap draws 100

Latent Variables:

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

Refereebias =~

FoulDifference 1.000 2.337 0.439

RedCardDiffrnc 0.041 0.004 10.408 0.000 0.096 0.211

YellwCrdDffrnc 0.572 0.024 23.573 0.000 1.337 0.759

Regressions:

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

Refereebias ~

covid (a) -0.701 0.077 -9.064 0.000 -0.300 -0.145

AvrgAttnd (a4) -0.117 0.047 -2.483 0.013 -0.050 -0.050

FrgnrsShD (a5) -0.089 0.045 -1.997 0.046 -0.038 -0.038

AvrgAttn: (a6) -0.103 0.089 -1.158 0.247 -0.044 -0.023

FrgnrsSD: (a7) -0.029 0.072 -0.395 0.693 -0.012 -0.007

RtngDffrn (d1) 0.043 0.001 29.407 0.000 0.018 0.288

ImprtncDf (d2) 0.002 0.001 3.089 0.002 0.001 0.022

ShtsDffrn (d3) 0.017 0.006 2.838 0.005 0.007 0.048

VAR (d4) 0.068 0.055 1.237 0.216 0.029 0.008

GoalDifference ~

covid (cp) -0.088 0.052 -1.678 0.093 -0.088 -0.023

Refereebs (b) 0.069 0.011 6.202 0.000 0.161 0.088

AvrgAttnd (b4) 0.091 0.028 3.264 0.001 0.091 0.050

FrgnrsShD (b5) 0.045 0.022 2.070 0.038 0.045 0.025

AvrgAttn: (b6) -0.021 0.058 -0.368 0.713 -0.021 -0.006

FrgnrsSD: (b7) 0.020 0.039 0.517 0.605 0.020 0.007

AgeDffrnc (b8) 0.025 0.025 0.998 0.318 0.025 0.014

AgDffrnc: (b9) -0.058 0.043 -1.353 0.176 -0.058 -0.019

RtngDffrn (d1) 0.043 0.001 29.407 0.000 0.043 0.368

ImprtncDf (d2) 0.002 0.001 3.089 0.002 0.002 0.028

VAR (d4) 0.068 0.055 1.237 0.216 0.068 0.010

Variances:

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

.Refereebias 4.899 0.270 18.127 0.000 0.897 0.897

.FoulDifference 22.837 0.432 52.809 0.000 22.837 0.807

.RedCardDiffrnc 0.199 0.006 34.088 0.000 0.199 0.956

.YellwCrdDffrnc 1.317 0.097 13.509 0.000 1.317 0.424

.GoalDifference 2.686 0.050 53.760 0.000 2.686 0.806

R-Square:

Estimate

Refereebias 0.103

FoulDifference 0.193

RedCardDiffrnc 0.044

YellwCrdDffrnc 0.576

GoalDifference 0.194

Defined Parameters:

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

Direct -0.088 0.053 -1.670 0.095 -0.088 -0.023

indirect -0.048 0.009 -5.271 0.000 -0.048 -0.013

mdrtdmdtnffctt -0.007 0.006 -1.153 0.249 -0.007 -0.002

mdrtdffctttndn -0.021 0.059 -0.366 0.714 -0.021 -0.006

mdrtdmdtnffctf -0.002 0.005 -0.378 0.706 -0.002 -0.001

mdrtdffctfrgnr 0.020 0.039 0.515 0.607 0.020 0.007

moderatdffctAg -0.058 0.043 -1.346 0.178 -0.058 -0.019

total -0.136 0.052 -2.625 0.009 -0.136 -0.036

confounderRtng 0.043 0.001 29.259 0.000 0.018 0.288

confndrImprtnc 0.002 0.001 3.073 0.002 0.001 0.022

confounderShts 0.017 0.006 2.823 0.005 0.007 0.048

counfounderVar 0.068 0.056 1.230 0.219 0.029 0.008

Estimator ML

Optimization method NLMINB

Number of model parameters 31

Number of equality constraints 3

Number of observations 8039

Model Test User Model:

Test statistic 712.263

Degrees of freedom 34

P-value (Chi-square) 0.000

Model Test Baseline Model:

Test statistic 3929.151

Degrees of freedom 58

P-value 0.000

User Model versus Baseline Model:

Comparative Fit Index (CFI) 0.825

Tucker-Lewis Index (TLI) 0.701

Loglikelihood and Information Criteria:

Loglikelihood user model (H0) -60430.728

Loglikelihood unrestricted model (H1) -60074.596

Akaike (AIC) 120917.456

Bayesian (BIC) 121113.234

Sample-size adjusted Bayesian (BIC) 121024.255

Root Mean Square Error of Approximation:

RMSEA 0.050

90 Percent confidence interval - lower 0.047

90 Percent confidence interval - upper 0.053

P-value RMSEA <= 0.05 0.531

Standardized Root Mean Square Residual:

SRMR 0.023

Parameter Estimates:

Standard errors Bootstrap

Number of requested bootstrap draws 100

Number of successful bootstrap draws 100

Latent Variables:

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

Refereebias =~

FoulDifference 1.000 2.341 0.440

RedCardDiffrnc 0.041 0.004 9.756 0.000 0.096 0.211

YellwCrdDffrnc 0.571 0.025 22.417 0.000 1.336 0.758

Regressions:

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

Refereebias ~

covid (a) -0.739 0.079 -9.418 0.000 -0.316 -0.152

OccpncyRt (a2) 0.154 0.051 3.052 0.002 0.066 0.066

OccpncyR: (a3) -0.077 0.072 -1.072 0.284 -0.033 -0.021

AvrgAttnd (a4) -0.204 0.050 -4.097 0.000 -0.087 -0.087

FrgnrsShD (a5) -0.076 0.041 -1.869 0.062 -0.032 -0.032

AvrgAttn: (a6) -0.045 0.092 -0.484 0.628 -0.019 -0.010

FrgnrsSD: (a7) -0.044 0.066 -0.669 0.504 -0.019 -0.011

RtngDffrn (d1) 0.043 0.002 26.728 0.000 0.019 0.289

ImprtncDf (d2) 0.002 0.001 2.728 0.006 0.001 0.022

ShtsDffrn (d3) 0.016 0.005 3.148 0.002 0.007 0.045

VAR (d4) 0.071 0.058 1.233 0.218 0.030 0.008

GoalDifference ~

covid (cp) -0.080 0.054 -1.483 0.138 -0.080 -0.021

Refereebs (b) 0.069 0.013 5.253 0.000 0.162 0.089

OccpncyRt (b2) 0.017 0.026 0.667 0.505 0.017 0.009

OccpncyR: (b3) -0.095 0.037 -2.588 0.010 -0.095 -0.033

AvrgAttnd (b4) 0.079 0.031 2.525 0.012 0.079 0.043

FrgnrsShD (b5) 0.045 0.024 1.868 0.062 0.045 0.025

AvrgAttn: (b6) 0.018 0.053 0.336 0.737 0.018 0.005

FrgnrsSD: (b7) 0.020 0.043 0.471 0.638 0.020 0.007

AgeDffrnc (b8) 0.024 0.020 1.240 0.215 0.024 0.013

AgDffrnc: (b9) -0.059 0.037 -1.591 0.112 -0.059 -0.020

RtngDffrn (d1) 0.043 0.002 26.728 0.000 0.043 0.371

ImprtncDf (d2) 0.002 0.001 2.728 0.006 0.002 0.028

VAR (d4) 0.071 0.058 1.233 0.218 0.071 0.011

Variances:

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

.Refereebias 4.899 0.280 17.482 0.000 0.894 0.894

.FoulDifference 22.833 0.372 61.417 0.000 22.833 0.806

.RedCardDiffrnc 0.199 0.005 36.688 0.000 0.199 0.956

.YellwCrdDffrnc 1.319 0.088 14.936 0.000 1.319 0.425

.GoalDifference 2.683 0.047 57.244 0.000 2.683 0.805

R-Square:

Estimate

Refereebias 0.106

FoulDifference 0.194

RedCardDiffrnc 0.044

YellwCrdDffrnc 0.575

GoalDifference 0.195

Defined Parameters:

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

Direct -0.080 0.054 -1.475 0.140 -0.080 -0.021

indirect -0.051 0.012 -4.453 0.000 -0.051 -0.014

mdrtdmdtnffctt -0.003 0.007 -0.448 0.654 -0.003 -0.001

mdrtdffctttndn 0.018 0.054 0.334 0.738 0.018 0.005

mdrtdmdtnffctf -0.003 0.005 -0.677 0.499 -0.003 -0.001

mdrtdffctfrgnr 0.020 0.044 0.469 0.639 0.020 0.007

moderatdffctAg -0.059 0.037 -1.583 0.113 -0.059 -0.020

total -0.132 0.052 -2.534 0.011 -0.132 -0.035

confounderRtng 0.043 0.002 26.594 0.000 0.019 0.289

confndrImprtnc 0.002 0.001 2.714 0.007 0.001 0.022

confounderShts 0.016 0.005 3.132 0.002 0.007 0.045

counfounderVar 0.071 0.058 1.227 0.220 0.030 0.008

Model 2: simpel maar andere DV

stimator ML

Optimization method NLMINB

Number of model parameters 29

Number of equality constraints 3

Number of observations 8039

Model Test User Model:

Test statistic 205.186

Degrees of freedom 19

P-value (Chi-square) 0.000

Model Test Baseline Model:

Test statistic 2721.090

Degrees of freedom 42

P-value 0.000

User Model versus Baseline Model:

Comparative Fit Index (CFI) 0.931

Tucker-Lewis Index (TLI) 0.846

Loglikelihood and Information Criteria:

Loglikelihood user model (H0) -58359.111

Loglikelihood unrestricted model (H1) -58256.518

Akaike (AIC) 116770.222

Bayesian (BIC) 116952.016

Sample-size adjusted Bayesian (BIC) 116869.393

Root Mean Square Error of Approximation:

RMSEA 0.035

90 Percent confidence interval - lower 0.031

90 Percent confidence interval - upper 0.039

P-value RMSEA <= 0.05 1.000

Standardized Root Mean Square Residual:

SRMR 0.015

Parameter Estimates:

Standard errors Bootstrap

Number of requested bootstrap draws 100

Number of successful bootstrap draws 100

Latent Variables:

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

Refereebias =~

FoulDifference 1.000 2.684 0.505

YellwCrdDffrnc 0.430 0.022 19.270 0.000 1.154 0.656

Regressions:

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

Refereebias ~

covid (a) -0.895 0.106 -8.456 0.000 -0.334 -0.161

OccpncyRt (a2) 0.182 0.054 3.387 0.001 0.068 0.068

OccpncyR: (a3) -0.087 0.089 -0.975 0.329 -0.032 -0.021

AvrgAttnd (a4) -0.198 0.066 -2.993 0.003 -0.074 -0.074

FrgnrsShD (a5) -0.076 0.053 -1.417 0.156 -0.028 -0.028

AvrgAttn: (a6) -0.098 0.131 -0.747 0.455 -0.036 -0.019

FrgnrsSD: (a7) -0.057 0.083 -0.693 0.488 -0.021 -0.013

RtngDffrn (d1) 0.053 0.002 31.064 0.000 0.020 0.310

ImprtncDf (d2) 0.002 0.001 2.805 0.005 0.001 0.025

ShtsDffrn (d3) 0.006 0.007 0.966 0.334 0.002 0.016

VAR (d4) 0.121 0.076 1.605 0.109 0.045 0.013

PointsDifference ~

covid (cp) -0.151 0.073 -2.079 0.038 -0.151 -0.029

Refereebs (b) 0.036 0.014 2.469 0.014 0.095 0.038

OccpncyRt (b2) 0.009 0.043 0.217 0.828 0.009 0.004

OccpncyR: (b3) -0.129 0.059 -2.185 0.029 -0.129 -0.032

AvrgAttnd (b4) 0.116 0.047 2.467 0.014 0.116 0.046

FrgnrsShD (b5) 0.062 0.034 1.818 0.069 0.062 0.024

AvrgAttn: (b6) 0.006 0.082 0.070 0.944 0.006 0.001

FrgnrsSD: (b7) 0.010 0.058 0.176 0.860 0.010 0.002

AgeDffrnc (b8) 0.069 0.037 1.856 0.063 0.069 0.027

AgDffrnc: (b9) -0.085 0.055 -1.530 0.126 -0.085 -0.020

RtngDffrn (d1) 0.053 0.002 31.064 0.000 0.053 0.328

ImprtncDf (d2) 0.002 0.001 2.805 0.005 0.002 0.026

VAR (d4) 0.121 0.076 1.605 0.109 0.121 0.013

Variances:

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

.Refereebias 6.389 0.415 15.384 0.000 0.887 0.887

.FoulDifference 21.030 0.554 37.985 0.000 21.030 0.745

.YellwCrdDffrnc 1.758 0.086 20.498 0.000 1.758 0.569

.PointsDiffernc 5.550 0.055 100.004 0.000 5.550 0.859

R-Square:

Estimate

Refereebias 0.113

FoulDifference 0.255

YellwCrdDffrnc 0.431

PointsDiffernc 0.141

Defined Parameters:

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

Direct -0.151 0.073 -2.069 0.039 -0.151 -0.029

indirect -0.032 0.014 -2.324 0.020 -0.032 -0.006

mdrtdmdtnffctt -0.003 0.005 -0.758 0.449 -0.003 -0.001

mdrtdffctttndn 0.006 0.082 0.069 0.945 0.006 0.001

mdrtdmdtnffctf -0.002 0.003 -0.691 0.490 -0.002 -0.000

mdrtdffctfrgnr 0.010 0.058 0.175 0.861 0.010 0.002

moderatdffctAg -0.085 0.056 -1.523 0.128 -0.085 -0.020

total -0.183 0.073 -2.488 0.013 -0.183 -0.035

confounderRtng 0.053 0.002 30.908 0.000 0.020 0.310

confndrImprtnc 0.002 0.001 2.791 0.005 0.001 0.025

confounderShts 0.006 0.007 0.961 0.337 0.002 0.016

counfounderVar 0.121 0.076 1.597 0.110 0.045 0.013

Model 3:

stimator ML

Optimization method NLMINB

Number of model parameters 29

Number of equality constraints 3

Number of observations 8039

Model Test User Model:

Test statistic 200.778

Degrees of freedom 19

P-value (Chi-square) 0.000

Model Test Baseline Model:

Test statistic 3215.278

Degrees of freedom 42

P-value 0.000

User Model versus Baseline Model:

Comparative Fit Index (CFI) 0.943

Tucker-Lewis Index (TLI) 0.873

Loglikelihood and Information Criteria:

Loglikelihood user model (H0) -55442.438

Loglikelihood unrestricted model (H1) -55342.049

Akaike (AIC) 110936.876

Bayesian (BIC) 111118.669

Sample-size adjusted Bayesian (BIC) 111036.046

Root Mean Square Error of Approximation:

RMSEA 0.034

90 Percent confidence interval - lower 0.030

90 Percent confidence interval - upper 0.039

P-value RMSEA <= 0.05 1.000

Standardized Root Mean Square Residual:

SRMR 0.014

Parameter Estimates:

Standard errors Bootstrap

Number of requested bootstrap draws 100

Number of successful bootstrap draws 100

Latent Variables:

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

Refereebias =~

FoulDifference 1.000 2.522 0.476

YellwCrdDffrnc 0.481 0.024 20.385 0.000 1.214 0.691

Regressions:

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

Refereebias ~

covid (a) -0.821 0.095 -8.625 0.000 -0.325 -0.157

OccpncyRt (a2) 0.167 0.064 2.612 0.009 0.066 0.066

OccpncyR: (a3) -0.070 0.081 -0.866 0.386 -0.028 -0.018

AvrgAttnd (a4) -0.178 0.070 -2.530 0.011 -0.071 -0.071

FrgnrsShD (a5) -0.062 0.044 -1.404 0.160 -0.025 -0.025

AvrgAttn: (a6) -0.096 0.113 -0.857 0.392 -0.038 -0.020

FrgnrsSD: (a7) -0.049 0.077 -0.642 0.521 -0.020 -0.012

RtngDffrn (d1) 0.046 0.001 35.391 0.000 0.018 0.285

ImprtncDf (d2) 0.002 0.001 3.348 0.001 0.001 0.022

ShtsDffrn (d3) 0.012 0.006 1.953 0.051 0.005 0.031

VAR (d4) 0.077 0.065 1.188 0.235 0.031 0.009

GoalDifference ~

covid (cp) -0.106 0.051 -2.072 0.038 -0.106 -0.028

Refereebs (b) 0.037 0.010 3.581 0.000 0.094 0.051

OccpncyRt (b2) 0.023 0.025 0.955 0.340 0.023 0.013

OccpncyR: (b3) -0.102 0.038 -2.724 0.006 -0.102 -0.036

AvrgAttnd (b4) 0.064 0.032 2.000 0.046 0.064 0.035

FrgnrsShD (b5) 0.037 0.024 1.518 0.129 0.037 0.020

AvrgAttn: (b6) 0.025 0.058 0.424 0.672 0.025 0.007

FrgnrsSD: (b7) 0.019 0.040 0.473 0.636 0.019 0.006

AgeDffrnc (b8) 0.021 0.022 0.936 0.349 0.021 0.011

AgDffrnc: (b9) -0.055 0.034 -1.656 0.098 -0.055 -0.018

RtngDffrn (d1) 0.046 0.001 35.391 0.000 0.046 0.392

ImprtncDf (d2) 0.002 0.001 3.348 0.001 0.002 0.030

VAR (d4) 0.077 0.065 1.188 0.235 0.077 0.012

Variances:

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

.Refereebias 5.710 0.325 17.545 0.000 0.897 0.897

.FoulDifference 21.680 0.473 45.837 0.000 21.680 0.773

.YellwCrdDffrnc 1.611 0.095 16.956 0.000 1.611 0.522

.GoalDifference 2.694 0.054 49.909 0.000 2.694 0.803

R-Square:

Estimate

Refereebias 0.103

FoulDifference 0.227

YellwCrdDffrnc 0.478

GoalDifference 0.197

Defined Parameters:

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

Direct -0.106 0.052 -2.062 0.039 -0.106 -0.028

indirect -0.031 0.008 -3.611 0.000 -0.031 -0.008

mdrtdmdtnffctt -0.004 0.004 -0.813 0.416 -0.004 -0.001

mdrtdffctttndn 0.025 0.059 0.422 0.673 0.025 0.007

mdrtdmdtnffctf -0.002 0.003 -0.606 0.545 -0.002 -0.001

mdrtdffctfrgnr 0.019 0.040 0.471 0.638 0.019 0.006

moderatdffctAg -0.055 0.034 -1.647 0.100 -0.055 -0.018

total -0.137 0.052 -2.621 0.009 -0.137 -0.036

confounderRtng 0.046 0.001 35.214 0.000 0.018 0.285

confndrImprtnc 0.002 0.001 3.331 0.001 0.001 0.022

confounderShts 0.012 0.006 1.944 0.052 0.005 0.031

counfounderVar 0.077 0.065 1.182 0.237 0.031 0.009

Model 4:

Model 5:

Model 6: