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* General SEM analysis results *
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General project information

Version of WarpPLS used: 7.0
License holder: Jorge Alcaraz
Type of license: Individual license
License start date: 13-Oct-2021
License end date: 13-Oct-2022
Project path (directory): C:\Users\Jorge Luis García\Dropbox\Articulos en proceso\Maribel Mendoza Solis\Gestión de negocios\Round 2\
Project file: Modelo 2.prj
Last changed: 04-Jan-2022 20:21:59
Last saved: 04-Jan-2022 20:22:19
Raw data path (directory): C:\Users\Dell Inspiron\Documents\
Raw data file: base156.xlsx

Model fit and quality indices

Average path coefficient (APC)=0.462, P<0.001
Average R-squared (ARS)=0.433, P<0.001
Average adjusted R-squared (AARS)=0.427, P<0.001
Average block VIF (AVIF)=1.664, acceptable if <= 5, ideally <= 3.3
Average full collinearity VIF (AFVIF)=1.855, acceptable if <= 5, ideally <= 3.3
Tenenhaus GoF (GoF)=0.568, small >= 0.1, medium >= 0.25, large >= 0.36
Sympson's paradox ratio (SPR)=1.000, acceptable if >= 0.7, ideally = 1
R-squared contribution ratio (RSCR)=1.000, acceptable if >= 0.9, ideally = 1
Statistical suppression ratio (SSR)=1.000, acceptable if >= 0.7
Nonlinear bivariate causality direction ratio (NLBCDR)=1.000, acceptable if >= 0.7

General model elements

Missing data imputation algorithm: Arithmetic Mean Imputation
Outer model analysis algorithm: PLS Regression
Default inner model analysis algorithm: Warp3
Multiple inner model analysis algorithms used? No
Resampling method used in the analysis: Stable3
Number of data resamples used: 100
Number of cases (rows) in model data: 156
Number of latent variables in model: 3
Number of indicators used in model: 10
Number of iterations to obtain estimates: 5
Range restriction variable type: None
Range restriction variable: None
Range restriction variable min value: 0.000
Range restriction variable max value: 0.000
Only ranked data used in analysis? No

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* Path coefficients and P values *
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Path coefficients

	RECC	GESACT	DESSOC
GESACT	0.65		
DESSOC	0.362	0.375	

P values

	RECC	GESACT	DESSOC
GESACT	<0.001		
DESSOC	<0.001	<0.001	

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* Standard errors for path coefficients *
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	RECC	GESACT	DESSOC
GESACT	0.07		
DESSOC	0.074	0.074	

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* Effect sizes for path coefficients *
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	RECC	GESACT	DESSOC
GESACT	0.422		
DESSOC	0.217	0.226	

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* Combined loadings and cross-loadings *
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	RECC	GESACT	DESSOC	Type (a	SE	P value
RC2	0.822	-0.242	0.159	Reflect	0.067	<0.001
RC3	0.819	0.417	-0.343	Reflect	0.067	<0.001
RC4	0.85	-0.168	0.177	Reflect	0.067	<0.001
GEA2	0.028	0.873	-0.164	Reflect	0.066	<0.001
GEA3	0.023	0.891	-0.099	Reflect	0.066	<0.001
GEA5	-0.027	0.831	0.183	Reflect	0.067	<0.001
GEA8	-0.027	0.809	0.098	Reflect	0.067	<0.001
DS1	0.016	-0.067	0.895	Reflect	0.066	<0.001
DS5	0.054	-0.044	0.919	Reflect	0.066	<0.001
DS7	-0.071	0.112	0.899	Reflect	0.066	<0.001

Notes: Loadings are unrotated and cross-loadings are oblique-rotated. SEs and P values are for loadings. P values < 0.05 are desirable for reflective indicators.

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* Normalized combined loadings and cross-loadings *
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	RECC	GESACT	DESSOC
RC2	0.769	-0.257	0.169
RC3	0.738	0.454	-0.373
RC4	0.754	-0.189	0.199
GEA2	0.028	0.775	-0.167
GEA3	0.024	0.766	-0.105
GEA5	-0.037	0.725	0.245
GEA8	-0.036	0.74	0.128
DS1	0.017	-0.072	0.779
DS5	0.059	-0.047	0.764
DS7	-0.081	0.127	0.761

Note: Loadings are unrotated and cross-loadings are oblique-rotated, both after separate Kaiser normalizations.

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* Pattern loadings and cross-loadings *

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	RECC	GESACT	DESSOC
RC2	0.895	-0.242	0.159
RC3	0.744	0.417	-0.343
RC4	0.853	-0.168	0.177
GEA2	0.028	0.968	-0.164
GEA3	0.023	0.943	-0.099
GEA5	-0.027	0.724	0.183
GEA8	-0.027	0.76	0.098
DS1	0.016	-0.067	0.93
DS5	0.054	-0.044	0.916
DS7	-0.071	0.112	0.866

Note: Loadings and cross-loadings are oblique-rotated.

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* Normalized pattern loadings and cross-loadings *
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	RECC	GESACT	DESSOC
RC2	0.951	-0.257	0.169
RC3	0.809	0.454	-0.373
RC4	0.962	-0.189	0.199
GEA2	0.028	0.986	-0.167
GEA3	0.024	0.994	-0.105
GEA5	-0.037	0.969	0.245
GEA8	-0.036	0.991	0.128
DS1	0.017	-0.072	0.997
DS5	0.059	-0.047	0.997
DS7	-0.081	0.127	0.989

Note: Loadings and cross-loadings shown are after oblique rotation and Kaiser normalization.

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* Structure loadings and cross-loadings *
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	RECC	GESACT	DESSOC
RC2	0.822	0.45	0.516
RC3	0.819	0.645	0.382
RC4	0.85	0.497	0.551
GEA2	0.547	0.873	0.454
GEA3	0.563	0.891	0.494
GEA5	0.544	0.831	0.571
GEA8	0.518	0.809	0.522
DS1	0.513	0.504	0.895
DS5	0.554	0.545	0.919
DS7	0.513	0.571	0.899

Note: Loadings and cross-loadings are unrotated.

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* Normalized structure loadings and cross-loadings *
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	RECC	GESACT	DESSOC
RC2	0.769	0.42	0.482
RC3	0.738	0.581	0.344
RC4	0.754	0.44	0.488
GEA2	0.486	0.775	0.403
GEA3	0.484	0.766	0.424
GEA5	0.475	0.725	0.498
GEA8	0.474	0.74	0.477
DS1	0.447	0.439	0.779
DS5	0.46	0.453	0.764
DS7	0.434	0.483	0.761

Note: Loadings and cross-loadings shown are unrotated and after Kaiser normalization.

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* Indicator weights *
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	RECC	GESACT	DESSOC	Type (a	SE	P value	VIF	WLS	ES
RC2	0.397	0	0	Reflect	0.073	<0.001	1.567	1	0.327
RC3	0.396	0	0	Reflect	0.073	<0.001	1.553	1	0.324
RC4	0.411	0	0	Reflect	0.073	<0.001	1.699	1	0.349
GEA2	0	0.301	0	Reflect	0.075	<0.001	2.651	1	0.263
GEA3	0	0.307	0	Reflect	0.075	<0.001	2.895	1	0.274
GEA5	0	0.286	0	Reflect	0.075	<0.001	1.97	1	0.238
GEA8	0	0.279	0	Reflect	0.075	<0.001	1.822	1	0.226
DS1	0	0	0.365	Reflect	0.074	<0.001	2.435	1	0.326
DS5	0	0	0.375	Reflect	0.074	<0.001	2.91	1	0.344
DS7	0	0	0.366	Reflect	0.074	<0.001	2.515	1	0.329

Notes: P values < 0.05 and VIFs < 2.5 are desirable for formative indicators; VIF = indicator variance inflation factor;
WLS = indicator weight-loading sign (-1 = Simpson's paradox in l.v.); ES = indicator effect size.

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* Latent variable coefficients *
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R-squared coefficients

RECC	GESACT	DESSOC
	0.422	0.443

Adjusted R-squared coefficients

RECC	GESACT	DESSOC
	0.419	0.436

Composite reliability coefficients

RECC	GESACT	DESSOC
0.87	0.914	0.931

Cronbach's alpha coefficients

RECC	GESACT	DESSOC
0.776	0.873	0.889

Average variances extracted

RECC	GESACT	DESSOC
0.69	0.726	0.818

Full collinearity VIFs

RECC	GESACT	DESSOC
1.887	1.938	1.74

Q-squared coefficients

RECC	GESACT	DESSOC
	0.428	0.447

Minimum and maximum values

RECC	GESACT	DESSOC
-2.643	-2.426	-2.193
1.851	1.35	1.634

Medians (top) and modes (bottom)

RECC	GESACT	DESSOC
-0.031	0.157	0.056
1.093	1.35	0.358

Skewness (top) and exc. kurtosis (bottom) coefficients

RECC	GESACT	DESSOC
-0.218	-0.559	-0.232
-0.557	-0.538	-0.681

Tests of unimodality: Rohatgi-Székely (top) and Klaassen-Mokveld-van Es (bottom)

RECC	GESACT	DESSOC
Yes	Yes	Yes
Yes	Yes	Yes

Tests of normality: Jarque–Bera (top) and robust Jarque–Bera (bottom)

RECC	GESACT	DESSOC
Yes	No	Yes
Yes	No	Yes

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* Correlations among latent variables and errors *
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Correlations among l.vs. with sq. rts. of AVEs

	RECC	GESACT	DESSOC
RECC	0.831	0.638	0.582
GESACT	0.638	0.852	0.597
DESSOC	0.582	0.597	0.904

Note: Square roots of average variances extracted (AVEs) shown on diagonal.

P values for correlations

	RECC	GESACT	DESSOC
RECC	1	<0.001	<0.001
GESACT	<0.001	1	<0.001
DESSOC	<0.001	<0.001	1

Correlations among l.v. error terms with VIFs

	(e)GESA	(e)DESS
(e)GESA	1	-0.009
(e)DESS	-0.009	1

Notes: Variance inflation factors (VIFs) shown on diagonal. Error terms included (a.k.a. residuals) are for endogenous l.vs.

P values for correlations

	(e)GESA	(e)DESS
(e)GESA	1	0.908
(e)DESS	0.908	1

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* Block variance inflation factors *
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	RECC	GESACT	DESSOC
DESSOC	1.664	1.664	

Note: These VIFs are for the latent variables on each column (predictors), with reference to the latent variables on each row (criteria).

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* Indirect and total effects *
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Indirect effects for paths with 2 segments

	RECC	GESACT	DESSOC
DESSOC	0.244		

Number of paths with 2 segments

	RECC	GESACT	DESSOC
DESSOC	1		

P values of indirect effects for paths with 2 segments

	RECC	GESACT	DESSOC
DESSOC	<0.001		

Standard errors of indirect effects for paths with 2 segments
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	RECC	GESACT	DESSOC
DESSOC	0.054		

Effect sizes of indirect effects for paths with 2 segments

	RECC	GESACT	DESSOC
DESSOC	0.146		

Sums of indirect effects

	RECC	GESACT	DESSOC

DESSOC	0.244

Number of paths for indirect effects

	RECC	GESACT	DESSOC
DESSOC		1	

P values for sums of indirect effects

	RECC	GESACT	DESSOC
DESSOC	<0.001		

Standard errors for sums of indirect effects

	RECC	GESACT	DESSOC
DESSOC		0.054	

Effect sizes for sums of indirect effects

	RECC	GESACT	DESSOC
DESSOC		0.146	

Total effects

	RECC	GESACT	DESSOC
GESACT		0.65	
DESSOC		0.606	0.375

Number of paths for total effects

	RECC	GESACT	DESSOC
GESACT		1	
DESSOC		2	1

P values for total effects

	RECC	GESACT	DESSOC
GESACT	<0.001		
DESSOC	<0.001	<0.001	

Standard errors for total effects

	RECC	GESACT	DESSOC
GESACT		0.07	
DESSOC		0.07	0.074

Effect sizes for total effects

	RECC	GESACT	DESSOC
GESACT	0.422		
DESSOC	0.363	0.226	

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* Causality assessment coefficients *
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Path-correlation signs

	RECC	GESACT	DESSOC
GESACT	1		
DESSOC	1	1	

Notes: path-correlation signs; negative sign (i.e., -1) = Simpson's paradox.

R-squared contributions

	RECC	GESACT	DESSOC
GESACT	0.422		
DESSOC	0.217	0.226	

Notes: R-squared contributions of predictor lat. vars.; columns = predictor lat. vars.; rows = criteria lat. vars.; negative sign = reduction in R-squared.

Path-correlation ratios

	RECC	GESACT	DESSOC
GESACT	1		
DESSOC	0.605	0.621	

Notes: absolute path-correlation ratios; ratio > 1 indicates statistical suppression; 1 < ratio <= 1.3: weak suppression; 1.3 < ratio <= 1.7: medium; 1.7 < ratio: strong.

Path-correlation differences

	RECC	GESACT	DESSOC
GESACT	0		
DESSOC	0.237	0.229	

Note: absolute path-correlation differences.

P values for path-correlation differences

	RECC	GESACT	DESSOC
GESACT	1		
DESSOC	0.001	0.002	

Note: P values for absolute path-correlation differences.

Warp2 bivariate causal direction ratios

	RECC	GESACT	DESSOC

GESACT	1.012	
DESSOC	1.008	1

Notes: Warp2 bivariate causal direction ratios; ratio > 1 supports reversed link; 1 < ratio <= 1.3: weak support; 1.3 < ratio <= 1.7: medium; 1.7 < ratio: strong.

Warp2 bivariate causal direction differences

	RECC	GESACT	DESSOC
GESACT	0.007		
DESSOC	0.005	0	

Note: absolute Warp2 bivariate causal direction differences.

P values for Warp2 bivariate causal direction differences

	RECC	GESACT	DESSOC
GESACT	0.463		
DESSOC	0.475	0.499	

Note: P values for absolute Warp2 bivariate causal direction differences.

Warp3 bivariate causal direction ratios

	RECC	GESACT	DESSOC
GESACT	0.998		
DESSOC	0.993	0.99	

Notes: Warp3 bivariate causal direction ratios; ratio > 1 supports reversed link; 1 < ratio <= 1.3: weak support; 1.3 < ratio <= 1.7: medium; 1.7 < ratio: strong.

Warp3 bivariate causal direction differences

	RECC	GESACT	DESSOC
GESACT	0.002		
DESSOC	0.004	0.006	

Note: absolute Warp3 bivariate causal direction differences.

P values for Warp3 bivariate causal direction differences

	RECC	GESACT	DESSOC
GESACT	0.492		
DESSOC	0.48	0.471	

Note: P values for absolute Warp3 bivariate causal direction differences.