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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.prj
Last changed: 02-Mar-2021 12:20:34
Last saved: 02-Mar-2021 12:32:03
Raw data path (directory): C:\Users\Dell Inspiron\Documents\
Raw data file: base156.xlsx

Model fit and quality indices

Average path coefficient (APC)=0.306, P<0.001
Average R-squared (ARS)=0.307, P<0.001
Average adjusted R-squared (AARS)=0.299, P<0.001
Average block VIF (AVIF)=1.285, acceptable if <= 5, ideally <= 3.3
Average full collinearity VIF (AFVIF)=1.684, acceptable if <= 5, ideally <= 3.3
Tenenhaus GoF (GoF)=0.475, small >= 0.1, medium >= 0.25, large >= 0.36
Sympson's paradox ratio (SPR)=0.833, acceptable if >= 0.7, ideally = 1
R-squared contribution ratio (RSCR)=0.982, 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: 4
Number of indicators used in model: 13
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	GESPAS	DESSOC
GESACT	0.637			0.096
GESPAS	-0.225			
DESSOC	0.337	0.364		-0.178

P values

	RECC	GESACT	GESPAS	DESSOC
GESACT	<0.001			0.111
GESPAS		0.002		
DESSOC	<0.001	<0.001		0.011

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* Standard errors for path coefficients *
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	RECC	GESACT	GESPAS	DESSOC
GESACT	0.07			0.078
GESPAS	0.076			
DESSOC	0.074	0.074		0.077

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* Effect sizes for path coefficients *
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	RECC	GESACT	GESPAS	DESSOC
GESACT	0.414			0.018
GESPAS	0.051			
DESSOC	0.202	0.22		0.052

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* Combined loadings and cross-loadings *
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	RECC	GESACT	GESPAS	DESSOC	Type (a	SE	P value
RC2	0.822	-0.246	0.056	0.175	Reflect	0.067	<0.001
RC3	0.819	0.417	0.002	-0.339	Reflect	0.067	<0.001
RC4	0.85	-0.164	-0.056	0.158	Reflect	0.067	<0.001
GEA2	0.044	0.873	0.105	-0.13	Reflect	0.066	<0.001
GEA3	0.012	0.891	-0.026	-0.109	Reflect	0.066	<0.001
GEA5	-0.032	0.831	-0.082	0.162	Reflect	0.067	<0.001
GEA8	-0.027	0.809	-0.001	0.094	Reflect	0.067	<0.001
GEP8	0.198	-0.192	0.839	0.007	Reflect	0.067	<0.001
GEP9	0.061	-0.093	0.857	0.222	Reflect	0.066	<0.001
GEP10	-0.266	0.292	0.823	-0.239	Reflect	0.067	<0.001
DS1	-0.003	-0.045	-0.026	0.895	Reflect	0.066	<0.001
DS5	0.066	-0.059	0.044	0.919	Reflect	0.066	<0.001
DS7	-0.064	0.106	-0.019	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	GESPAS	DESSOC
RC2	0.765	-0.26	0.059	0.185
RC3	0.736	0.455	0.002	-0.37
RC4	0.742	-0.184	-0.063	0.178
GEA2	0.046	0.774	0.11	-0.136
GEA3	0.012	0.764	-0.027	-0.113
GEA5	-0.043	0.72	-0.109	0.214
GEA8	-0.035	0.739	-0.001	0.123
GEP8	0.219	-0.212	0.967	0.008
GEP9	0.065	-0.098	0.999	0.235

GEP10	-0.305	0.335	0.868	-0.274
DS1	-0.004	-0.049	-0.028	0.766
DS5	0.07	-0.064	0.047	0.756
DS7	-0.073	0.121	-0.022	0.749

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	GESPAS	DESSOC
RC2	0.893	-0.246	0.056	0.175
RC3	0.742	0.417	0.002	-0.339
RC4	0.857	-0.164	-0.056	0.158
GEA2	0.044	0.94	0.105	-0.13
GEA3	0.012	0.958	-0.026	-0.109
GEA5	-0.032	0.734	-0.082	0.162
GEA8	-0.027	0.763	-0.001	0.094
GEP8	0.198	-0.192	0.862	0.007
GEP9	0.061	-0.093	0.915	0.222
GEP10	-0.266	0.292	0.74	-0.239
DS1	-0.003	-0.045	-0.026	0.919
DS5	0.066	-0.059	0.044	0.931
DS7	-0.064	0.106	-0.019	0.863

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

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* Normalized pattern loadings and cross-loadings *
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	RECC	GESACT	GESPAS	DESSOC
RC2	0.946	-0.26	0.059	0.185
RC3	0.81	0.455	0.002	-0.37
RC4	0.965	-0.184	-0.063	0.178
GEA2	0.046	0.984	0.11	-0.136
GEA3	0.012	0.993	-0.027	-0.113
GEA5	-0.043	0.97	-0.109	0.214
GEA8	-0.035	0.992	-0.001	0.123
GEP8	0.219	-0.212	0.952	0.008
GEP9	0.065	-0.098	0.965	0.235
GEP10	-0.305	0.335	0.848	-0.274
DS1	-0.004	-0.049	-0.028	0.998
DS5	0.07	-0.064	0.047	0.994
DS7	-0.073	0.121	-0.022	0.99

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	GESPAS	DESSOC
RC2	0.822	0.45	-0.11	0.516
RC3	0.819	0.645	-0.065	0.382
RC4	0.85	0.497	-0.196	0.551
GEA2	0.547	0.873	0.056	0.454
GEA3	0.563	0.891	-0.062	0.494
GEA5	0.544	0.831	-0.141	0.571
GEA8	0.518	0.809	-0.062	0.522
GEP8	-0.076	-0.094	0.839	-0.184
GEP9	-0.012	0.029	0.857	-0.023
GEP10	-0.296	-0.089	0.823	-0.354
DS1	0.513	0.504	-0.219	0.895
DS5	0.554	0.545	-0.173	0.919
DS7	0.513	0.571	-0.205	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	GESPAS	DESSOC
RC2	0.765	0.418	-0.103	0.48
RC3	0.736	0.58	-0.059	0.344
RC4	0.742	0.434	-0.171	0.481
GEA2	0.485	0.774	0.05	0.403
GEA3	0.483	0.764	-0.053	0.423
GEA5	0.471	0.72	-0.122	0.494
GEA8	0.473	0.739	-0.057	0.477
GEP8	-0.088	-0.108	0.967	-0.213
GEP9	-0.014	0.034	0.999	-0.027
GEP10	-0.312	-0.094	0.868	-0.374
DS1	0.439	0.431	-0.188	0.766
DS5	0.455	0.449	-0.142	0.756
DS7	0.428	0.476	-0.171	0.749

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

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* Indicator weights *
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	RECC	GESACT	GESPAS	DESSOC	Type (a	SE	P value	VIF	WLS	ES
RC2	0.397	0	0	0	Reflect	0.073	<0.001	1.567	1	0.327
RC3	0.396	0	0	0	Reflect	0.073	<0.001	1.553	1	0.324
RC4	0.411	0	0	0	Reflect	0.073	<0.001	1.699	1	0.349
GEA2	0	0.301	0	0	Reflect	0.075	<0.001	2.651	1	0.263
GEA3	0	0.307	0	0	Reflect	0.075	<0.001	2.895	1	0.274
GEA5	0	0.286	0	0	Reflect	0.075	<0.001	1.97	1	0.238
GEA8	0	0.279	0	0	Reflect	0.075	<0.001	1.822	1	0.226
GEP8	0	0	0.396	0	Reflect	0.073	<0.001	1.673	1	0.332
GEP9	0	0	0.405	0	Reflect	0.073	<0.001	1.775	1	0.347
GEP10	0	0	0.389	0	Reflect	0.074	<0.001	1.588	1	0.32
DS1	0	0	0	0.365	Reflect	0.074	<0.001	2.435	1	0.326
DS5	0	0	0	0.375	Reflect	0.074	<0.001	2.91	1	0.344
DS7	0	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	GESPAS	DESSOC
	0.396	0.051	0.474

Adjusted R-squared coefficients

RECC	GESACT	GESPAS	DESSOC
	0.388	0.045	0.464

Composite reliability coefficients

RECC	GESACT	GESPAS	DESSOC
0.87	0.914	0.878	0.931

Cronbach's alpha coefficients

RECC	GESACT	GESPAS	DESSOC
0.776	0.873	0.791	0.889

Average variances extracted

RECC	GESACT	GESPAS	DESSOC
0.69	0.726	0.705	0.818

Full collinearity VIFs

RECC	GESACT	GESPAS	DESSOC
1.898	1.964	1.066	1.809

Q-squared coefficients

RECC	GESACT	GESPAS	DESSOC
	0.438	0.051	0.477

Minimum and maximum values

RECC	GESACT	GESPAS	DESSOC
-2.643	-2.426	-1.759	-2.193
1.851	1.35	2.261	1.634

Medians (top) and modes (bottom)

RECC	GESACT	GESPAS	DESSOC
-0.031	0.157	-0.071	0.056
1.093	1.35	-0.754	0.358

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

RECC	GESACT	GESPAS	DESSOC
-0.218	-0.559	0.097	-0.232
-0.557	-0.538	-0.604	-0.681

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

RECC	GESACT	GESPAS	DESSOC
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes

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

RECC	GESACT	GESPAS	DESSOC
Yes	No	Yes	Yes
Yes	No	Yes	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	GESPAS	DESSOC
RECC	0.831	0.638	-0.15	0.582

GESACT	0.638	0.852	-0.06	0.597
GESPAS	-0.15	-0.06	0.84	-0.22
DESSOC	0.582	0.597	-0.22	0.904

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

P values for correlations

	RECC	GESACT	GESPAS	DESSOC
RECC	1	<0.001	0.061	<0.001
GESACT	<0.001	1	0.457	<0.001
GESPAS	0.061	0.457	1	0.006
DESSOC	<0.001	<0.001	0.006	1

Correlations among l.v. error terms with VIFs

	(e)GESA	(e)GESP	(e)DESS
(e)GESA	1.004	0.061	-0.012
(e)GESP	0.061	1.006	-0.048
(e)DESS	-0.012	-0.048	1.002

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)GESP	(e)DESS
(e)GESA	1	0.447	0.878
(e)GESP	0.447	1	0.553
(e)DESS	0.878	0.553	1

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* Block variance inflation factors *
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	RECC	GESACT	GESPAS	DESSOC
GESACT	1.019		1.019	
DESSOC	1.685	1.668	1.036	

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	GESPAS	DESSOC
GESACT	-0.022			
DESSOC	0.272		0.035	

Number of paths with 2 segments

	RECC	GESACT	GESPAS	DESSOC
GESACT	1			
DESSOC	2		1	

P values of indirect effects for paths with 2 segments

	RECC	GESACT	GESPAS	DESSOC
GESACT	0.351			
DESSOC	<0.001		0.267	

Standard errors of indirect effects for paths with 2 segments

	RECC	GESACT	GESPAS	DESSOC
GESACT	0.056			
DESSOC	0.075		0.056	

Effect sizes of indirect effects for paths with 2 segments

	RECC	GESACT	GESPAS	DESSOC
GESACT	0.014			
DESSOC	0.163		0.01	

Indirect effects for paths with 3 segments

	RECC	GESACT	GESPAS	DESSOC
DESSOC	-0.008			

Number of paths with 3 segments

	RECC	GESACT	GESPAS	DESSOC
DESSOC	1			

P values of indirect effects for paths with 3 segments

	RECC	GESACT	GESPAS	DESSOC
DESSOC	0.432			

Standard errors of indirect effects for paths with 3 segments

	RECC	GESACT	GESPAS	DESSOC
DESSOC	0.046			

Effect sizes of indirect effects for paths with 3 segments

	RECC	GESACT	GESPAS	DESSOC

DESSOC	0.005

Sums of indirect effects

	RECC	GESACT	GESPAS	DESSOC
GESACT	-0.022			
DESSOC	0.264		0.035	

Number of paths for indirect effects

	RECC	GESACT	GESPAS	DESSOC
GESACT	1			
DESSOC	3		1	

P values for sums of indirect effects

	RECC	GESACT	GESPAS	DESSOC
GESACT	0.351			
DESSOC	<0.001		0.267	

Standard errors for sums of indirect effects

	RECC	GESACT	GESPAS	DESSOC
GESACT	0.056			
DESSOC	0.076		0.056	

Effect sizes for sums of indirect effects

	RECC	GESACT	GESPAS	DESSOC
GESACT	0.014			
DESSOC	0.158		0.01	

Total effects

	RECC	GESACT	GESPAS	DESSOC
GESACT	0.615		0.096	
GESPAS	-0.225			
DESSOC	0.601	0.364	-0.143	

Number of paths for total effects

	RECC	GESACT	GESPAS	DESSOC
GESACT	2		1	
GESPAS	1			
DESSOC	4	1	2	

P values for total effects

	RECC	GESACT	GESPAS	DESSOC
GESACT	<0.001			0.111
GESPAS		0.002		
DESSOC	<0.001	<0.001		0.033

Standard errors for total effects

	RECC	GESACT	GESPAS	DESSOC
GESACT		0.07		0.078
GESPAS		0.076		
DESSOC		0.07	0.074	0.078

Effect sizes for total effects

	RECC	GESACT	GESPAS	DESSOC
GESACT		0.4		0.018
GESPAS		0.051		
DESSOC		0.36	0.22	0.042

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* Causality assessment coefficients *
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Path-correlation signs

	RECC	GESACT	GESPAS	DESSOC
GESACT		1		-1
GESPAS		1		
DESSOC		1	1	1

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

R-squared contributions

	RECC	GESACT	GESPAS	DESSOC
GESACT		0.414		-0.018
GESPAS		0.051		
DESSOC		0.202	0.22	0.052

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	GESPAS	DESSOC
GESACT		0.98		0.527
GESPAS		1		
DESSOC		0.562	0.604	0.609

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	GESPAS	DESSOC
GESACT	0.013			0.279
GESPAS	0			
DESSOC	0.262	0.239		0.115

Note: absolute path-correlation differences.

P values for path-correlation differences

	RECC	GESACT	GESPAS	DESSOC
GESACT	0.435		<0.001	
GESPAS	1			
DESSOC	<0.001	<0.001		0.072

Note: P values for absolute path-correlation differences.

Warp2 bivariate causal direction ratios

	RECC	GESACT	GESPAS	DESSOC
GESACT	1.012			0.654
GESPAS	1.094			
DESSOC	1.008	1		0.765

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	GESPAS	DESSOC
GESACT	0.007			0.063
GESPAS	0.017			
DESSOC	0.005	0		0.069

Note: absolute Warp2 bivariate causal direction differences.

P values for Warp2 bivariate causal direction differences

	RECC	GESACT	GESPAS	DESSOC
GESACT	0.463			0.212
GESPAS	0.416			
DESSOC	0.475	0.499		0.192

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

Warp3 bivariate causal direction ratios

	RECC	GESACT	GESPAS	DESSOC
GESACT	0.998			0.855
GESPAS	0.938			
DESSOC	0.993	0.99		0.812

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	GESPAS	DESSOC
GESACT	0.002		0.027	
GESPAS	0.014			
DESSOC	0.004	0.006	0.055	

Note: absolute Warp3 bivariate causal direction differences.

P values for Warp3 bivariate causal direction differences

	RECC	GESACT	GESPAS	DESSOC
GESACT	0.492		0.37	
GESPAS	0.43			
DESSOC	0.48	0.471	0.243	

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