Lampiran 1. Kuisioner Penelitian

KUESIONER PENELITIAN

Kepada,
Yth. Saudara/i
di Tempat

Dengan hormat,

Sehubungan dengan penyusunan tesis sebagai salah satu syarat untuk menyelesaikan program studi Magister Manajemen di Fakultas Ekonomi dan Bisnis Universitas Muhammadiyah Jember, peneliti memohon kesediaan saudara/i untuk mengisi dan menjawab pertanyaan-pertanyaan yang tersedia dalam kuesioner dengan jujur dan sesuai dengan keadaan sebenarnya. Penelitian ini bertujuan untuk mengetahui "Pengaruh Bauran Pemasaran dan Kualitas Layanan terhadap Loyalitas Pelanggan melalui Kepuasan Pelanggan (Studi pada Pelanggan PT. Trajek Group di Kota Jember)". Informasi yang saudara/i berikan hanya akan digunakan untuk kepentingan terbatas, dalam artian hanya digunakan dalam kepentingan penelitian ini saja. Peneliti menjamin kerahasiaan informasi dan jawaban yang anda berikan.

Demikian atas kesediaan dan kerjasama saudara/i yang berkenan untuk meluangkan waktu mengisi kuesioner ini, peneliti mengucapkan terimakasih.

Hormat saya,

Lery Handika Putra
NIM 2220412012

LEMBAR KUESIONER

A. Identitas Responden

1. No. Responden : (diisi peneliti)
2. Nama :
3. Apakah saudara/i pernah menggunakan layanan PT. Trajek Group Tour Travel?
   - o Pernah (Lanjut ke pertanyaan berikutnya)
   - o Tidak Pernah (Berhenti Sampai Di Sini)

4. Apakah saudara/i pernah menggunakan layanan PT. Trajek Group Tour Travel sebanyak?
   - o 1 kali
   - o 2 s.d 3 kali
   - o 4 s.d 5 kali
   - o 6 s.d 7 kali
   - o Lebih dari 7 kali

5. Terakhir menggunakan layanan PT. Trajek Group Tour Travel pada tahun?
   - o 2024
   - o 2023
   - o 2022
   - o 2021

6. Jenis Kelamin L/P :
7. Usia :
8. Pendidikan terakhir :
   - o SD/SMP/SMA
   - o Diploma
   - o Sarjana
   - o Pasca Sarjana

9. Profesi Responden :
   - o Pelajar/ Mahasiswa
   - o Pegawai Swasta
   - o TNI/POLRI
   - o PNS
   - o Wiraswata
   - o Ibu Rumah Tangga
   - o Lain-Lain……(Sebutkan)

10. Domisili Kota :

B. Petunjuk Kuesioner

1. Pertanyaan-pertanyaan berikut ini mohon diisi dengan jujur dan sesuai dengan keadaan dan kenyataan yang sebenarnya.
2. Berilah tanda *check list* (√) pada salah satu jawaban yang telah disediakan, sesuai dengan apa yang anda alami atau rasakan saat ini.
3. Setiap jawaban pada masing-masing pertanyaan akan diberikan skor sebagai berikut:

SS	= Sangat Setuju	(skor 5)
S	= Setuju	(skor 4)
CS	= Cukup Setuju	(skor 3)
TS	= Tidak Setuju	(skor 2)
STS	= Sangat Tidak Setuju	(skor 1)

C. Daftar Pernyataan

1. Bauran Pemasaran

No	Pernyataan	SS	S	CS	TS	STS
1	PT. Trajek Group Tour Travel menawarkan paket wisata yang baik tidak hanya menawarkan paket standar, tetapi juga paket yang lebih spesifik, seperti wisata minat khusus (ekowisata, dan lain-lain), yang lebih menarik dan unik					
2	PT. Trajek Group Tour Travel menawarkan paket wisata dengan tingkat harga yang terjangkau					
3	PT. Trajek Group Tour Travel melakukan dengan jelas dan akurat					
4	PT. Trajek Group Tour Travel memiliki saluran distribusi yang luas, baik online maupun offline, untuk memudahkan pemesanan					

2. Kualitas Layanan

No	Pernyataan	SS	S	CS	TS	STS
1	PT. Trajek Group Tour Travel memberikan layanan sesuai dengan yang dijanjikan dengan segera dan akurat					
2	Staf PT. Trajek Group Tour Travel untuk membantu para pelanggan dan memberikan layanan dengan tanggap					
3	Staf PT. Trajek Group Tour Travel memiliki komptensi dan pengetahuan dalam memberikan layanan					
4	Staf PT. Trajek Group Tour Travel memiliki pemahaman yang baik atas kebutuhan pelanggan					
5	PT. Trajek Group Tour Travel memiliki fasilitas yang memadai untuk kebutuhan layanan konsumen					

No	Pernyataan	SS	S	CS	TS	STS
1	Layanan PT. Trajek Group Tour Travel secara keseluruhan mampu memenuhi harapan					
2	PT. Trajek Group Tour Travel mampu memberikan layanan perjalanan wisata dan jasa terkait, seperti tiket, akomodasi, dan paket wisata yang memuaskan bagi pelanggan					
3	Kinerja layanan PT. Trajek Group Tour Travel yang dirasakan pelanggan sesuai dengan harapan pelanggan					
4	Pelanggan bersedia untuk menggunakan kembali layanan PT. Trajek Group Tour Travel					
5	Pelanggan bersedia untuk memberikan rekomendasi kepada teman dan keluarga untuk menggunakan layanan PT. Trajek Group Tour Travel					
6	Pelanggan tidak memiliki keluhan atas layanan PT. Trajek Group Tour Travel					

5. Loyalitas Pelanggan

No	Pernyataan	SS	S	CS	TS	STS
1	Konsumen memberikan testimoni yang baik setelah menggunakan layanan PT. Trajek Group Tour Travel					
2	Konsumen merekomendasikan layanan PT. Trajek Group Tour Travel kepada orang terdekat					
3	Konsumen menggunakan kembali layanan PT. Trajek Group Tour Travel					

Lampiran 2

No.	X1.1	X1.2	X1.3	X1.4	X2.1	X2.2	X2.3	X2.4	X2.5
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No.	Z1	Z2	Z3	Z4	Z5	Z6	Y1	Y2	Y3
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132	4	4	4	4	3	4	5	3	3
133	5	4	4	5	4	5	5	4	3
134	5	4	5	4	4	4	4	4	3
135	1	2	2	2	1	2	1	2	2
136	5	5	5	5	5	5	5	5	5
137	5	5	5	5	5	5	5	5	5
138	5	5	4	5	4	5	5	4	4
139	5	4	4	4	5	4	4	5	5
140	4	5	4	4	4	4	5	4	4
141	5	4	4	5	4	4	5	5	5
142	4	4	4	4	4	4	4	5	5
143	5	5	5	5	5	5	4	5	4
144	4	4	4	4	4	4	5	4	5
145	5	5	4	4	4	5	5	5	4
146	5	5	4	4	5	5	5	5	5
147	3	2	3	2	1	2	1	2	2
148	4	5	5	5	5	4	5	5	5
149	4	4	4	4	4	5	4	5	4
150	5	4	5	5	5	4	5	5	5
151	5	5	4	4	4	5	5	4	4
152	4	5	5	4	4	4	5	4	5

153	5	5	4	5	5	4	5	5	5
154	2	2	2	2	2	1	1	1	2
155	5	5	4	4	4	5	5	4	4
156	5	5	4	5	5	5	5	5	4
157	5	5	5	5	5	5	5	3	3
158	4	4	4	4	4	4	5	4	4
159	5	4	4	5	4	4	4	4	3
160	4	5	5	4	5	5	4	5	5
161	2	3	3	2	2	1	2	2	2
162	3	4	4	3	3	4	4	4	4
163	4	5	4	4	4	5	5	5	4
164	4	4	4	4	4	4	4	4	3
165	5	5	5	4	4	4	5	4	4
166	4	4	4	5	4	5	4	4	4
167	4	4	4	4	5	4	5	3	5
168	4	5	4	4	4	5	5	4	4
169	1	3	2	1	2	2	2	2	2
170	4	4	4	4	4	5	4	4	4
171	5	5	5	5	5	4	5	4	5
172	4	4	4	4	4	5	5	4	5
173	2	2	2	2	1	3	1	2	2
174	5	5	5	5	5	5	4	5	4
175	4	4	4	4	4	4	4	5	4
176	3	4	3	4	4	4	4	4	4
177	5	5	4	5	5	4	5	5	4
178	5	5	5	5	4	5	5	3	3
179	4	5	4	5	4	5	5	4	4
180	5	4	4	4	4	5	4	5	4

Lampiran 3
Hasil Analisis SEM-PLS

```
******************************
* General SEM analysis results *
******************************

General project information
---------------------------

Version of WarpPLS used: 7.0
License holder: Trial license (3 months)
Type of license: Trial license (3 months)
License start date: 07-Mar-2025
License end date: 05-Jun-2025
Project path (directory): F:\DATA\LERY RPL UMJ\
Project file: SEM PLS.prj
Last changed: 19-Apr-2025 19:31:31
Last saved: Never (needs to be saved)
Raw data path (directory): F:\DATA\LERY RPL UMJ \
Raw data file: INPUT PLS.csv


Model fit and quality indices
-----------------------------

Average path coefficient (APC)=0.373, P<0.001
Average R-squared (ARS)=0.830, P<0.001
Average adjusted R-squared (AARS)=0.827, P<0.001
Average block VIF (AVIF)=7.502, acceptable if <= 5, ideally <= 3.3
Average full collinearity VIF (AFVIF)=5.977, acceptable if <= 5, ideally <= 3.3
Tenenhaus GoF (GoF)=0.822, 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: 180
Number of latent variables in model: 4
Number of indicators used in model: 18
Number of iterations to obtain estimates: 4
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

****
* Path coefficients and P values *
****

Path coefficients

	X1	X2	Z	Y
Z	0.266	0.659		
Y	0.355	0.289	0.295	

P values

	X1	X2	Z	Y
Z	<0.001	<0.001		
Y	<0.001	<0.001	<0.001	

****
* Standard errors for path coefficients *
****

	X1	X2	Z	Y
Z	0.071	0.065		
Y	0.069	0.070	0.070	

****
* Effect sizes for path coefficients *
****

	X1	X2	Z	Y
Z	0.231	0.595		
Y	0.316	0.257	0.260	

****
* Combined loadings and cross-loadings *
****

	X1	X2	Z	Y	Type (a	SE	P value
X1.1	0.924	0.137	-0.066	-0.025	Reflect	0.062	<0.001
X1.2	0.896	0.073	0.032	-0.057	Reflect	0.062	<0.001
X1.3	0.927	-0.175	0.073	-0.014	Reflect	0.062	<0.001
X1.4	0.914	-0.033	-0.038	0.095	Reflect	0.062	<0.001
X2.1	-0.034	0.908	-0.062	-0.054	Reflect	0.062	<0.001
X2.2	-0.075	0.904	0.115	-0.117	Reflect	0.062	<0.001
X2.3	-0.003	0.904	0.019	0.048	Reflect	0.062	<0.001
X2.4	0.159	0.898	-0.136	0.111	Reflect	0.062	<0.001
X2.5	-0.046	0.900	0.063	0.013	Reflect	0.062	<0.001
Z1	-0.047	0.056	0.897	-0.093	Reflect	0.062	<0.001
Z2	0.033	-0.071	0.905	-0.019	Reflect	0.062	<0.001
Z3	-0.047	0.061	0.889	-0.094	Reflect	0.062	<0.001
Z4	0.152	-0.009	0.921	0.032	Reflect	0.062	<0.001
Z5	-0.118	0.119	0.886	0.257	Reflect	0.062	<0.001
Z6	0.022	-0.162	0.849	-0.087	Reflect	0.063	<0.001
Y1	0.055	-0.044	0.248	0.907	Reflect	0.062	<0.001
Y2	0.155	0.095	-0.164	0.903	Reflect	0.062	<0.001
Y3	-0.214	-0.051	-0.085	0.891	Reflect	0.062	<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.

****
* Normalized combined loadings and cross-loadings *
****

	X1	X2	Z	Y
X1.1	0.556	0.153	-0.074	-0.028
X1.2	0.554	0.084	0.037	-0.066
X1.3	0.565	-0.166	0.070	-0.014
X1.4	0.558	-0.037	-0.042	0.106
X2.1	-0.032	0.555	-0.059	-0.052
X2.2	-0.076	0.553	0.116	-0.118
X2.3	-0.004	0.546	0.022	0.057
X2.4	0.195	0.542	-0.166	0.136
X2.5	-0.053	0.550	0.073	0.015
Z1	-0.048	0.057	0.558	-0.095
Z2	0.034	-0.073	0.554	-0.019
Z3	-0.049	0.063	0.558	-0.097
Z4	0.194	-0.012	0.542	0.041
Z5	-0.165	0.166	0.542	0.359
Z6	0.021	-0.151	0.564	-0.081
Y1	0.077	-0.062	0.346	0.542
Y2	0.181	0.111	-0.192	0.551
Y3	-0.173	-0.041	-0.069	0.570

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

****

* Pattern loadings and cross-loadings *
****

	X1	X2	Z	Y
X1.1	0.881	0.137	-0.066	-0.025
X1.2	0.854	0.073	0.032	-0.057
X1.3	1.033	-0.175	0.073	-0.014
X1.4	0.891	-0.033	-0.038	0.095
X2.1	-0.034	1.046	-0.062	-0.054
X2.2	-0.075	0.972	0.115	-0.117
X2.3	-0.003	0.846	0.019	0.048
X2.4	0.159	0.780	-0.136	0.111
X2.5	-0.046	0.868	0.063	0.013
Z1	-0.047	0.056	0.969	-0.093
Z2	0.033	-0.071	0.960	-0.019
Z3	-0.047	0.061	0.958	-0.094
Z4	0.152	-0.009	0.768	0.032
Z5	-0.118	0.119	0.647	0.257
Z6	0.022	-0.162	1.058	-0.087
Y1	0.055	-0.044	0.248	0.667
Y2	0.155	0.095	-0.164	0.822
Y3	-0.214	-0.051	-0.085	1.216

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

****
* Normalized pattern loadings and cross-loadings *
****

	X1	X2	Z	Y
X1.1	0.985	0.153	-0.074	-0.028
X1.2	0.994	0.084	0.037	-0.066
X1.3	0.984	-0.166	0.070	-0.014
X1.4	0.993	-0.037	-0.042	0.106
X2.1	-0.032	0.996	-0.059	-0.052
X2.2	-0.076	0.983	0.116	-0.118
X2.3	-0.004	0.998	0.022	0.057
X2.4	0.195	0.957	-0.166	0.136
X2.5	-0.053	0.996	0.073	0.015
Z1	-0.048	0.057	0.993	-0.095
Z2	0.034	-0.073	0.997	-0.019
Z3	-0.049	0.063	0.992	-0.097
Z4	0.194	-0.012	0.980	0.041
Z5	-0.165	0.166	0.904	0.359
Z6	0.021	-0.151	0.985	-0.081
Y1	0.077	-0.062	0.346	0.933
Y2	0.181	0.111	-0.192	0.958
Y3	-0.173	-0.041	-0.069	0.982

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

****
* Structure loadings and cross-loadings *
****

	X1	X2	Z	Y
X1.1	0.924	0.817	0.780	0.796
X1.2	0.896	0.792	0.768	0.772
X1.3	0.927	0.781	0.774	0.788
X1.4	0.914	0.792	0.771	0.792
X2.1	0.778	0.908	0.801	0.778
X2.2	0.771	0.904	0.817	0.772
X2.3	0.791	0.904	0.814	0.797
X2.4	0.811	0.898	0.799	0.802
X2.5	0.773	0.900	0.812	0.784
Z1	0.742	0.799	0.897	0.765
Z2	0.767	0.803	0.905	0.783
Z3	0.737	0.793	0.889	0.758
Z4	0.814	0.838	0.921	0.819
Z5	0.758	0.815	0.886	0.805
Z6	0.697	0.738	0.849	0.716
Y1	0.798	0.808	0.826	0.907
Y2	0.798	0.796	0.772	0.903
Y3	0.726	0.748	0.749	0.891

Note: Loadings and cross-loadings are unrotated.

****
* Normalized structure loadings and cross-loadings *
****

	X1	X2	Z	Y
X1.1	0.556	0.492	0.469	0.479
X1.2	0.554	0.489	0.475	0.477
X1.3	0.565	0.476	0.472	0.480
X1.4	0.558	0.483	0.470	0.484
X2.1	0.476	0.555	0.490	0.475
X2.2	0.471	0.553	0.500	0.472
X2.3	0.478	0.546	0.492	0.481
X2.4	0.489	0.542	0.482	0.484
X2.5	0.472	0.550	0.496	0.479
Z1	0.462	0.498	0.558	0.477
Z2	0.470	0.492	0.554	0.480
Z3	0.463	0.498	0.558	0.476
Z4	0.479	0.494	0.542	0.482
Z5	0.464	0.499	0.542	0.493
Z6	0.463	0.491	0.564	0.476
Y1	0.477	0.483	0.494	0.542
Y2	0.487	0.486	0.472	0.551
Y3	0.465	0.479	0.479	0.570

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

****
* Indicator weights *
****

	X1	X2	Z	Y	Type (a	SE	P value	VIF	WLS	ES	
X1.1	0.276	0.000	0.000	0.000	Reflect	0.070	<0.001		3.956	1	0.255
X1.2	0.267	0.000	0.000	0.000	Reflect	0.071	<0.001		3.036	1	0.240
X1.3	0.276	0.000	0.000	0.000	Reflect	0.070	<0.001		3.994	1	0.256
X1.4	0.273	0.000	0.000	0.000	Reflect	0.071	<0.001		3.587	1	0.249
X2.1	0.000	0.223	0.000	0.000	Reflect	0.071	0.001	3.835	1	0.202	
X2.2	0.000	0.222	0.000	0.000	Reflect	0.071	0.001	3.742	1	0.200	
X2.3	0.000	0.222	0.000	0.000	Reflect	0.071	0.001	3.658	1	0.201	
X2.4	0.000	0.220	0.000	0.000	Reflect	0.071	0.001	3.721	1	0.198	
X2.5	0.000	0.221	0.000	0.000	Reflect	0.071	0.001	3.788	1	0.199	
Z1	0.000	0.000	0.188	0.000	Reflect	0.072	0.005	3.583	1	0.169	
Z2	0.000	0.000	0.190	0.000	Reflect	0.072	0.004	3.894	1	0.172	
Z3	0.000	0.000	0.186	0.000	Reflect	0.072	0.005	3.483	1	0.166	
Z4	0.000	0.000	0.193	0.000	Reflect	0.072	0.004	4.549	1	0.178	
Z5	0.000	0.000	0.186	0.000	Reflect	0.072	0.005	3.491	1	0.165	
Z6	0.000	0.000	0.178	0.000	Reflect	0.072	0.007	2.759	1	0.151	
Y1	0.000	0.000	0.000	0.373	Reflect	0.069	<0.001		2.606	1	0.338
Y2	0.000	0.000	0.000	0.371	Reflect	0.069	<0.001		2.535	1	0.335
Y3	0.000	0.000	0.000	0.367	Reflect	0.069	<0.001		2.335	1	0.327

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.

****
* Latent variable coefficients *
****

R-squared coefficients

X1	X2	Z	Y
	0.826	0.833	

Adjusted R-squared coefficients

X1	X2	Z	Y
	0.825	0.830	

Composite reliability coefficients

X1	X2	Z	Y
0.954	0.957	0.959	0.928

Cronbach's alpha coefficients

X1 X2 Z Y
0.935 0.943 0.948 0.883

Average variances extracted

X1 X2 Z Y
0.838 0.815 0.795 0.810

Full collinearity VIFs

X1 X2 Z Y
5.103 6.941 6.219 5.647

Q-squared coefficients

X1 X2 Z Y
0.825 0.831

Minimum and maximum values

X1 X2 Z Y
-2.967 -3.109 -3.105 -2.944
1.089 1.017 1.080 1.011

Medians (top) and modes (bottom)

X1 X2 Z Y
0.267 0.318 0.281 0.276
0.006 1.017 -0.115 1.011

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

X1 X2 Z Y
-1.395 -1.525 -1.604 -1.426
1.263 1.576 1.891 1.303

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

X1 X2 Z Y
Yes Yes Yes Yes
Yes Yes Yes Yes

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

X1	X2	Z	Y
No	No	No	No
No	No	No	No

****
* Correlations among latent variables and errors *
****

Correlations among l.vs. with sq. rts. of AVEs

	X1	X2	Z	Y
X1	0.915	0.869	0.845	0.860
X2	0.869	0.903	0.896	0.871
Z	0.845	0.896	0.891	0.869
Y	0.860	0.871	0.869	0.900

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

P values for correlations

	X1	X2	Z	Y
X1	1.000	<0.001	<0.001	<0.001
X2	<0.001	1.000	<0.001	<0.001
Z	<0.001	<0.001	1.000	<0.001
Y	<0.001	<0.001	<0.001	1.000

Correlations among l.v. error terms with VIFs

	(e)Z	(e)Y
(e)Z	1.003	0.050
(e)Y	0.050	1.003

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)Z	(e)Y
(e)Z	1.000	0.505
(e)Y	0.505	1.000

****
* Block variance inflation factors *
****

X1 X2 Z Y

Z6.205 6.205
Y7.710 9.924 7.467

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

****
* Indirect and total effects *
****

Indirect effects for paths with 2 segments

X1 X2 Z Y

Y0.079 0.195

Number of paths with 2 segments

X1 X2 Z Y

Y1 1

P values of indirect effects for paths with 2 segments

X1 X2 Z Y

Y0.066 <0.001

Standard errors of indirect effects for paths with 2 segments
---
X1 X2 Z Y

Y0.052 0.051

Effect sizes of indirect effects for paths with 2 segments

X1 X2 Z Y

Y0.070 0.173

Sums of indirect effects

	X1	X2	Z	Y
Y0.079	0.195			

Number of paths for indirect effects

	X1	X2	Z	Y
Y1	1			

P values for sums of indirect effects

	X1	X2	Z	Y
Y0.066	<0.001			

Standard errors for sums of indirect effects

	X1	X2	Z	Y
Y0.052	0.051			

Effect sizes for sums of indirect effects

	X1	X2	Z	Y
Y0.070	0.173			

Total effects

```
 X1     X2     Z      Y


Z0.266 0.659
Y0.434 0.483 0.295


Number of paths for total effects
-------------------------------------------------
 X1     X2     Z      Y


Z1      1
Y2      2      1


P values for total effects
-------------------------------------------------
 X1     X2     Z      Y


Z<0.001       <0.001
Y<0.001       <0.001       <0.001


Standard errors for total effects
-------------------------------------------------
 X1     X2     Z      Y


Z0.071 0.065
Y0.068 0.068 0.070


Effect sizes for total effects
-------------------------------------------------
 X1     X2     Z      Y


Z0.231 0.595
Y0.385 0.430 0.260



************************************
* Causality assessment coefficients *
************************************

Path-correlation signs
----------------------------------

 X1     X2     Z      Y
```

Z1 1
Y1 1 1

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

R-squared contributions

	X1	X2	Z	Y
Z	0.231	0.595		
Y	0.316	0.257	0.260	

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

	X1	X2	Z	Y
Z	0.306	0.730		
Y	0.400	0.324	0.335	

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

	X1	X2	Z	Y
Z	0.604	0.243		
Y	0.533	0.601	0.586	

Note: absolute path-correlation differences.

P values for path-correlation differences

	X1	X2	Z	Y
Z	<0.001	<0.001		
Y	<0.001	<0.001	<0.001	

Note: P values for absolute path-correlation differences.

Warp2 bivariate causal direction ratios

 X1   X2   Z   Y

Z0.988 0.999
Y0.997 1.008 1.010

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

 X1   X2   Z   Y

Z0.011 0.001
Y0.002 0.007 0.009

Note: absolute Warp2 bivariate causal direction differences.

P values for Warp2 bivariate causal direction differences

 X1   X2   Z   Y

Z0.442 0.495
Y0.487 0.463 0.454

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

Warp3 bivariate causal direction ratios

 X1   X2   Z   Y

Z0.989 0.999
Y1.004 1.005 1.007

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

X1 X2 Z Y

Z0.010 0.001
Y0.003 0.005 0.007

Note: absolute Warp3 bivariate causal

direction differences. P values for

Warp3 bivariate causal direction

differences

X1 X2 Z Y

Z0.449 0.493
Y0.482 0.475 0.465

Note: P values for absolute Warp3 bivariate causal dire