

González-Pérez, L.I., & Ramírez-Montoya, M.S. (2024). Appendix C. Results of validation and reliability with Exploratory Factor Analysis for an instrument to measure sustainability maturity in Higher Education.

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2. Descriptive statistical elements
3. KMO and Bartlett Test
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Results of piloting instrument after expert judgment assessment

1. Reliability Statisticals

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N elements
.937	.937	23

2. Descriptive statistical elements

Items	Media	Desv.	Cronbach's alpha	N
R1-G	2.78	.689	.935	121
R2-G	2.88	.766	.934	121
R3-G	2.83	.679	.935	121
R4-G	2.74	.911	.934	121
R5-G	2.61	.830	.933	121
R6-S	2.72	.809	.933	121
R7-S	2.78	.780	.933	121
R8-S	2.79	.744	.934	121
R9-S	2.82	.796	.934	121
R10-S	2.84	.847	.934	121
R11-H	2.93	.793	.934	121
R12-H	2.71	.841	.935	121

R13-H	2.45	.826	.933	121
R14-H	2.74	.736	.933	121
R15-E	2.82	.806	.933	121
R16-E	2.60	.881	.934	121
R17-E	2.48	.807	.936	121
R18-E	2.53	.775	.934	121
R19-W	2.84	.796	.934	121
R20-W	2.87	.695	.935	121
R21-W	2.79	.752	.933	121
R22-W	2.81	.767	.935	121
R23-W	2.66	.802	.934	121

3. KMO and Bartlett Test

KMO and Bartlett Test

Kaiser-Meyer-Olkin measurement of sampling adequacy		0.902
Bartlett's sphericity testx	Approx. Chi-square	1447.537
	gl	253
	Say.	0

4. Communalities

	Communalities	
	Initial	Extraction
R1 – D1G	1	0.424
R2G – D1 G	1	0.512
R8G - D1G	1	0.484
R14G – D1G	1	0.536
R26G – D1G	1	0.599
R7- D2DH	1	0.681
R9- D2DH	1	0.578
R11 - D2DH	1	0.635
R12-D2DH	1	0.600
R13-D3ENV	1	0.586
R15-D3ENV	1	0.703
R16-D3ENV	1	0.625
R17-D3ENV	1	0.636
R10-D4W	1	0.651
R20-D4W	1	0.587
R21-D4W	1	0.512
R22-D4W	1	0.585
R24-D4W	1	0.640
R6-D5S	1	0.589
R25-D5S	1	0.753
R27-D5S	1	0.638
R28-D5S	1	0.593
R29-D5S	1	0.431

5. Total variance explained

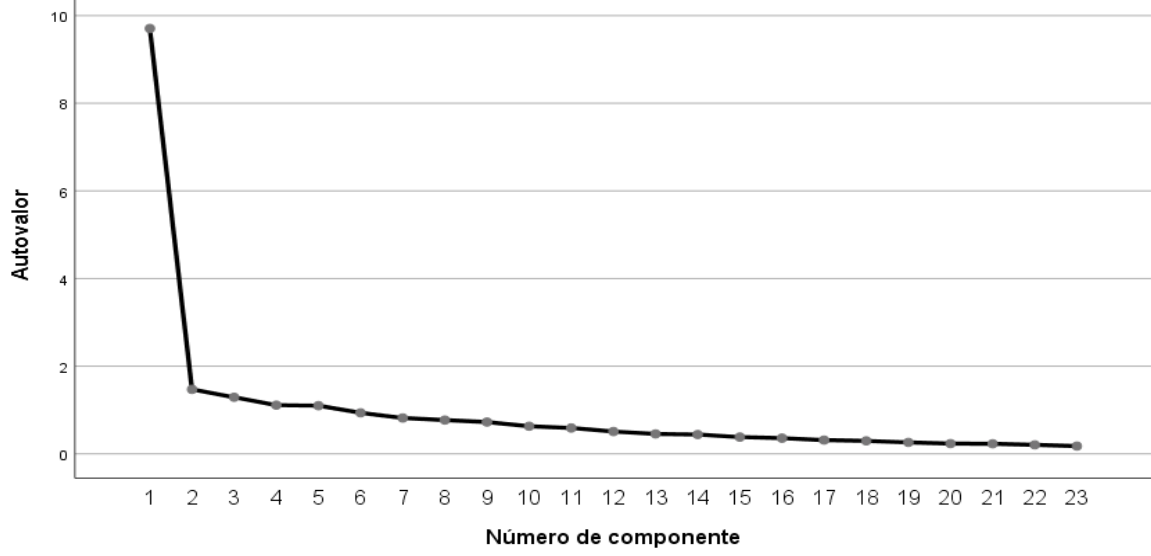
Component	Total variance explained			Sums of loads squared from extraction	
	Initial eigenvalues			Total	% variance
	Total	% variance	Cumulative %		
1	9.706	42.199	42.199	9.706	42.199
2	1.472	6.399	48.598	1.472	6.399
3	1.29	5.61	54.208	1.29	5.61
4	1.11	4.827	59.035	1.11	4.827
5	1.099	4.777	63.812		
6	0.937	4.072	67.884		
7	0.818	3.557	71.441		
8	0.77	3.347	74.788		
9	0.725	3.152	77.94		
10	0.629	2.735	80.675		
11	0.59	2.563	83.238		
12	0.509	2.213	85.451		
13	0.455	1.977	87.427		
14	0.44	1.912	89.339		
15	0.382	1.662	91.001		
16	0.358	1.556	92.556		
17	0.313	1.362	93.918		
18	0.295	1.283	95.202		
19	0.26	1.132	96.334		
20	0.234	1.016	97.35		
21	0.229	0.994	98.344		
22	0.205	0.891	99.235		
23	0.176	0.765	100		

Component	Total variance explained			
	Sums of loads squared from extraction	Sums of loads squared by rotation		
		Cumulative %	Total	% variance
1	42.199	3.882	16.877	16.877

2	48.598	3.357	14.595	31.473
3	54.208	3.355	14.589	46.062
4	59.035	2.984	12.974	59.035
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Extraction method:
principal component
analysis.

Gráfico de sedimentación



6. Component Matrix & Rotated Component Arraya

Component Matrix				
	Component			
	1	2	3	4
R25-D5S	0.745		- 0.443	
R12-D2DH	0.722			
R13-D3ENV	0.718			
R21-D4W	0.702			
R26- D1G	0.693			
R6--D5S	0.689			
R12-D2DH	0.685			
R10-D4W	0.675			
R15- D3ENV	0.666			
R28--D5S	0.655			
R24-D4W	0.646			-0.452
R14 - D1G	0.638			
R27--D5S	0.635		- 0.467	
R12-D2DH	0.633			
R29--D5S	0.631			
R2- D1G	0.625			
R1- D1G	0.622			
R17- D3ENV	0.617	0.489		
R20-D4W	0.608			
R12-D2DH	0.602			
R22-D4W	0.591			-0.463
R8- D1G	0.584			
R16- D3ENV	0.512	0.499		

Extraction
method:
principal
component
analysis.¹⁰
a. 4 extracted
components.

Rotated Component Arraya				
	Component			
	1	2	3	4
R25-D5S	0.765			
R27-D5S	0.697			
R6--D5S	0.646			
R28- -D5S	0.629			
R1-D1G	0.498			
R2-D1G	0.489			
R29-D5S	0.481			
R21 D4W	0.426			
R16- D3ENV		0.766		
R15- D3ENV		0.753		
R17- D3ENV		0.690		
R4 14		0.592		
R13- D3ENV		0.526		
R26G – D1G		0.494		0.466
R20-D4W			0.701	
R9- D2DH			0.694	
R10-D4W			0.626	
R7- D2DH			0.609	
R12- D2DH			0.565	
R8- D1G				0.589
R11- D2DH				0.518
R22-D4W				0.694
R24-D4W				0.712

7. Component Transformation Matrix

Extraction method: principal component analysis. Rotation method: Varimax with Kaiser normalization.
The rotation has converged into 10 iterations.

Component Transformation Matrix

Component	1	2	3	4
1	0.557	0.482	0.49	0.466
2	-0.09	0.801	-0.582	-0.109
3	-0.756	0.324	0.568	-0.029
4	0.332	0.146	0.313	-0.877