

To address the reliability concern for the three-item WILL_BROAD scale (Q34–Q36), we conducted a unidimensional reliability check with 95% confidence intervals and item-drop diagnostics. We report Cronbach’s α and McDonald’s ω with 95% CIs, along with Cronbach’s α if each item is dropped and basic item descriptives (means and standard deviations with 95% CIs). Item-drop results indicate that removing Q34 increases α to 0.730, suggesting that Q34 contributes most to the comparatively lower internal consistency of WILL_BROAD. Full details are provided in Supplementary Tables S1A and S1B (N = 102).

Table S1A. Item-level reliability diagnostics for WILL_BROAD (Q34–Q36) and internal-consistency estimates.

Coefficient	Estimate	SE	95% CI (Lower)	95% CI (Upper)
McDonald’s ω	0.698	0.047	0.606	0.790
Cronbach’s α	0.681	0.064	0.555	0.807

Table S1B. Item-drop diagnostics and item descriptives (Q34–Q36)

Item	α if item dropped	Lower 95% CI	Upper 95% CI	Mean	Mean 95% CI (L)	Mean 95% CI (U)	SD	SD 95% CI (L)	SD 95% CI (U)
Q34	0.730	0.595	0.865	4.147	3.953	4.341	0.999	0.878	1.159
Q35	0.430	0.174	0.686	3.922	3.714	4.129	1.069	0.940	1.240
Q36	0.607	0.445	0.769	3.578	3.329	3.828	1.285	1.130	1.491

Supplementary Tables S2A–S2C report robustness checks for the positive RISK coefficient in the WILL_BROAD model. Following Reviewer 3’s request, we conducted hierarchical regression to examine incremental model fit and coefficient stability when adding BENEFIT, RISK, CONTROL, and TRANSPARENCY beyond TRUST, and a bootstrap sensitivity analysis (BCa; 2,000 resamples) for the regression coefficients. These checks assess whether the positive multivariable RISK coefficient is stable under resampling and when controlling for institutional trust.

Table S2A. Hierarchical regression model fit predicting WILL_BROAD (N = 102)

Model	Predictors	R	R ²	Adjusted R ²	RMSE	R ² Change	F Change	df1	df2	p
M0	TRUST	0.472	0.223	0.215	0.778	0.223	28.706	1	100	<0.001
M1	TRUST, BENEFIT, RISK, CONTROL, TRANSPARENCY	0.579	0.336	0.301	0.734	0.113	4.071	4	96	0.004

Note: M0 includes TRUST only. M1 adds BENEFIT, RISK, CONTROL, and TRANSPARENCY.

Table S2B. Coefficients for WILL_BROAD models for Standard (analytic) coefficients (95% CI)

Predictor	Model	B	SE	β	t	p	95% CI (Lower)	95% CI (Upper)
TRUST	M0	0.452	0.084	0.472	5.358	<0.001	0.285	0.619
TRUST	M1	0.460	0.094	0.481	4.897	<0.001	0.274	0.647
BENEFIT	M1	0.200	0.120	0.160	1.665	0.099	-0.038	0.438
RISK	M1	0.192	0.081	0.225	2.365	0.020	0.031	0.353
CONTROL	M1	0.173	0.108	0.177	1.599	0.113	-0.042	0.388

TRANSPARENCY	M1	-0.084	0.108	-0.083	-0.780	0.437	-0.300	0.131
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Table S2C. Coefficients for WILL_BROAD models for Bootstrap coefficients (BCa 95% CI; 2,000 resamples)

Predictor	Model	Bootstrap B (median)	Bootstrap SE	p*	BCa 95% CI (Lower)	BCa 95% CI (Upper)
TRUST	M0	0.451	0.100	<0.001	0.253	0.653
TRUST	M1	0.461	0.106	<0.001	0.223	0.640
BENEFIT	M1	0.195	0.109	0.060	-0.010	0.430
RISK	M1	0.191	0.072	0.055	0.009	0.339
CONTROL	M1	0.164	0.114	0.108	-0.049	0.397
TRANSPARENCY	M1	-0.077	0.108	0.395	-0.296	0.127

Note: Bootstrapping based on 2,000 replicates; bias-corrected accelerated (BCa). Coefficient estimate is based on the median of the bootstrap distribution

To examine construct distinctiveness—particularly between CONTROL and TRANSPARENCY, which were strongly correlated at the composite level ($r = 0.596$)—we conducted an exploratory factor analysis (EFA) on Items Q10–Q29 (Tables S3A and S3B). Sampling adequacy was acceptable (KMO overall MSA = 0.783), and Bartlett’s test indicated that the correlation matrix was factorable ($\chi^2(190) = 1038.007$, $p < 0.001$). We extracted a five-factor solution and applied promax rotation to allow correlated factors. The rotated five-factor solution explained 59.8% of the variance and showed that items loaded largely as intended, with CONTROL (Q19–Q20) and TRANSPARENCY (Q21–Q23) forming distinct factors.

Table S3A. Rotated factor loadings (pattern matrix) for Items Q10–Q29 (five-factor EFA; promax rotation).

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Uniqueness
Q25	0.792					0.329
Q26	0.799					0.357
Q27	0.794					0.282
Q28	0.766					0.328
Q29	0.727					0.359
Q21	0.715					0.417
Q22	0.796					0.417
Q23	0.722					0.467
Q24	0.789					0.368
Q19	0.568					0.616
Q20	0.535					0.618
Q14	0.535					0.380
Q15	0.717					0.326
Q16	0.771					0.300
Q17	0.723					0.490
Q18	0.824					0.395
Q10	0.633					0.463
Q11	0.773					0.364
Q12	0.851					0.331

Q13	0.601	0.542	0.435
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Note: Loadings < 0.30 were suppressed. Q13 showed a moderate cross-loading (0.601 and 0.542). Rotation method: promax.

Table S3B. Factor characteristics and variance explained for the rotated five-factor EFA solution (promax).

Factor	Rotated SumSq Loadings	Proportion of variance	Cumulative proportion
1	3.241	0.162	0.162
2	2.997	0.150	0.312
3	2.747	0.137	0.449
4	2.261	0.113	0.562
5	0.713	0.036	0.598

To address concerns about potential influential observations, we inspected standard regression diagnostics for both models (WILL_ACAD and WILL_BROAD), including residual distributions, Q–Q plots, and residuals versus predicted values (homoscedasticity). We also examined influence statistics using Cook’s distance and standardized residuals. Following common heuristics for $N = 102$, we flagged cases with Cook’s $D > 4/N \approx 0.039$ and/or $|\text{standardized residual}| > 3$. Diagnostic plots are provided in Figure S1, and flagged cases together with sensitivity re-estimation results are summarized in Tables S4A–S4D.

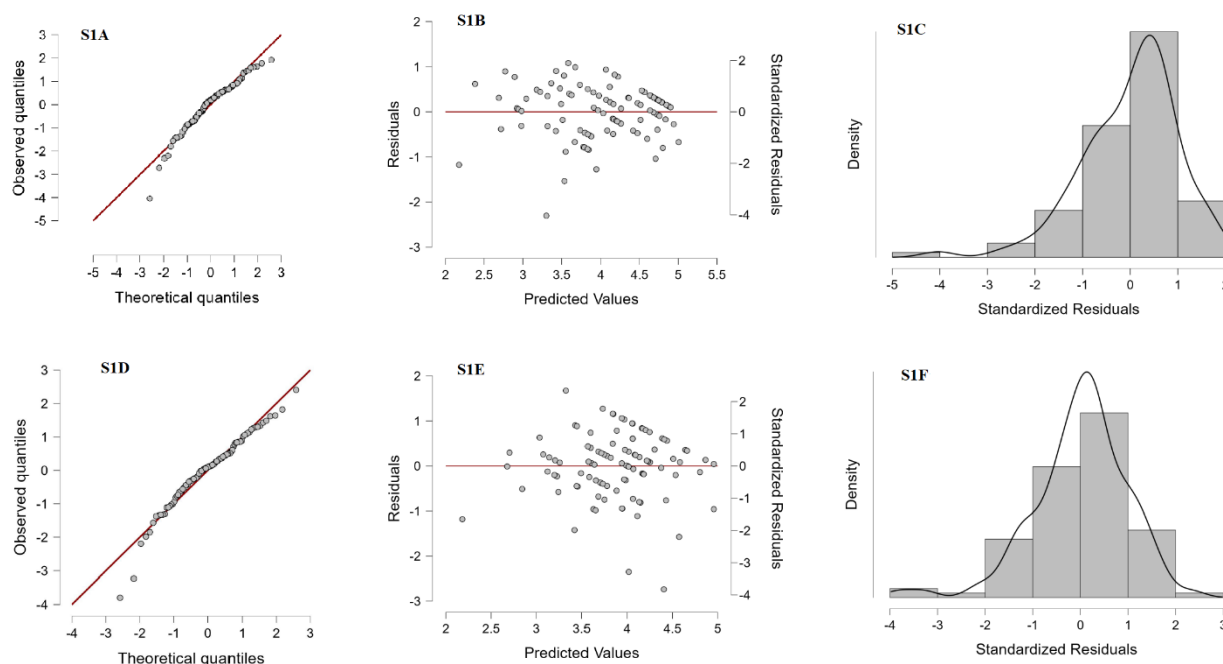


Figure S1. S1A: Residuals vs Predicted (WILL_ACAD); S1B: Standardized residuals histogram (WILL_ACAD); S1C: Q–Q plot standardized residuals (WILL_ACAD); S1D: Residuals vs Predicted (WILL_BROAD); S1E: Standardized residuals histogram (WILL_BROAD); S1F: Q–Q plot standardized residuals (WILL_BROAD).

Table S4A. Flagged observations for the WILL_ACAD regression model (Cook’s $D > 4/N \approx 0.039$ and/or $|\text{std. residual}| > 3$).

Case number	Std. residual	Cook’s D	Flag reason
47	-2.307	0.284	Cook’s D
55	-4.032	0.136	Cook’s D + $ \text{std. residual} > 3$

97	1.778	0.055	Cook's D
98	-2.715	0.086	Cook's D
100	1.921	0.052	Cook's D

Table S4B. Sensitivity re-estimation of the WILL_ACAD model excluding flagged cases.

Predictor	Full sample (N=102): B (p)	Excluding flagged cases (N=97): B (p)
TRUST	0.561 (<.001)	0.475 (p < .001)
BENEFIT	0.313 (0.001)	0.297 (p < .001)
RISK	-0.052 (0.421)	-0.097 (p = 0.074)
CONTROL	0.159 (0.069)	0.119 (p = 0.139)
TRANSPARENCY	-0.022 (0.798)	0.015 (p = 0.850)

Note: Excluding flagged cases did not materially change the direction or substantive interpretation of the WILL_ACAD model (TRUST and BENEFIT remained positive and statistically significant).

Table S4C. Flagged observations for the WILL_BROAD regression model (Cook's D > 4/N $\approx$ 0.039 and/or |std. residual| > 3).

Case number	Std. residual	Cook's D	Flag reason
11	1.265	0.061	Cook's D
14	2.404	0.110	Cook's D
30	-3.798	0.090	Cook's D + std. residual > 3
47	-1.850	0.183	Cook's D
95	-3.231	0.033	std.residual > 3
97	1.819	0.058	Cook's D

Table S4D. Sensitivity re-estimation of the WILL_BROAD model excluding flagged cases.

Predictor	Full sample (N=102): B (p)	Excluding flagged cases (N=96): B (p)
TRUST	0.460 (<.001)	0.509 (p < .001)
RISK	0.192 (0.020)	0.182 (p = .008)
BENEFIT	0.200 (0.099)	0.140 (p = .178)
CONTROL	0.173 (0.113)	0.152 (p = .122)
TRANSPARENCY	-0.084 (0.437)	-0.009 (p = .932)

Note: Excluding flagged cases did not materially change the direction or substantive interpretation of the WILL_BROAD model (TRUST remained the strongest predictor and RISK remained a positive predictor).

As a robustness check for the Pearson correlation analysis reported in the main manuscript, we computed Spearman's rho correlations for the composite variables. The direction of associations was consistent with Pearson's r; however, a small number of correlations differed slightly in statistical significance (see Table S5).

Table S5. Pearson's r and Spearman's rho correlation matrix for composite variables (N = 102).

Variable		BENEFIT	RISK	CONTROL	TRANSP ARENCY	TRUST	WILL_ ACAD	WILL_B ROAD
1. BENEFIT	Pearson's r	-						
	p-value	-						
	Spearman's rho	-						
	p-value	-						
2. RISK	Pearson's r	-0.020	-					
	p-value	0.842	-					
	Spearman's rho	-0.022	-					
	p-value	0.825	-					
3. CONTROL	Pearson's r	-0.003	0.395***	-				
	p-value	0.977	<.001	-				
	Spearman's rho	0.029	0.403***	-				
	p-value	0.769	<.001	-				
4. TRANSPARENCY	Pearson's r	0.167	0.251*	0.596***	-			
	p-value	0.093	0.011	<.001	-			
	Spearman's rho	0.211*	0.220*	0.580***	-			
	p-value	0.033	0.026	<.001	-			
5. TRUST	Pearson's r	0.434***	-0.299***	-0.088	-0.059	-		
	p-value	<.001	0.002	0.377	0.554	-		
	Spearman's rho	0.482***	-0.308**	-0.049	0.044	-		
	p-value	<.001	0.002	0.626	0.661	-		
6. WILL_ACAD	Pearson's r	0.507***	-0.185	0.073	0.067	0.708***	-	
	p-value	<.001	0.062	0.466	0.502	<.001	-	
	Spearman's rho	0.520***	-0.221*	0.036	0.148	0.780***	-	
	p-value	<.001	0.026	0.723	0.138	<.001	-	
7. WILL_BROAD	Pearson's r	0.350***	0.127	0.173	0.077	0.472***	0.606***	-
	p-value	<.001	0.204	0.082	0.444	<.001	<.001	-
	Spearman's rho	0.348***	0.167	0.192	0.164	0.465***	0.518***	-
	p-value	<.001	0.093	0.053	0.100	<.001	<.001	-

Note: * p < .05; ** p < .01; *** p < .001

Appendix S1. Attention-check item and exclusion rule

Item 30 (instructed-response check): “To confirm you are paying attention, please select ‘Agree’ for this statement.”

Correct response: Agree

Exclusion rule: Responses were excluded if Item 30 was answered with any option other than “Agree”.