

Appendix 1. The Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) results of the latent variables

Before we perform the SEM, we first perform EFA and CFA on the observed variables we are using to represent latent variables. These two types of factor analysis are theoretically based on ordinary factor analysis models to condense data. According to studies on a large number of related variables, the hypothetical few variables (factors and latent variables) can be used to represent the main information of the original variables (observed variables). Specifically, EFA focuses on identifying observed variables that affect the latent variables and measuring the correlation between the observed variable and latent variables. CFA aims at assessing the fit of factor models defined in advance to the actual data, to test whether the factor quantity and loads of the observed variables are consistent with expectations based on pre-established theories.

Thus, EFA and CFA tell us the extent to which the observed proxies of latent variables are good estimators—in this case, how well leadership (a latent variable) is represented by legitimacy, effectiveness, and credibility (as measured by the survey), and how well social capital (a latent variable) is represented by trust, networks and reciprocity (as measured by the survey).

Tables A4-1 and A4-2 show the results of the EFA and CFA, respectively, for each latent variable in our paper. EFA require that each latent variable’s Cronbach’s α should greater than 0.6, and CFA require that each variable’s loading value, composite reliability, and average variance extracted are all greater than 0.5 for reliable estimation. In accordance with the EFA and CFA data test principles, we can see both EFA and CFA yield better results.

Table A4-1. Exploratory factor analysis

	LS	SC	SOC
	$\alpha = 0.775$	$\alpha = 0.690$	$\alpha = 0.774$
LS1	0.842		
LS2	0.780		
LS3	0.624		
SC1		0.790	
SC2		0.788	
SOC1			0.820
SOC2			0.614
Variance explained	35.997%	22.357%	17.646%
KMO value		0.642	
Bartlett test significance		0.000	

Notes: 1) Extraction method: principle axis factor; 2) Rotation method: varimax with Kaiser normalization; 3) α means Cronbach’s α .

Table A4-2. Confirmatory factor analysis

Latent variables	Observed variables	Indicator loading	Composite reliability	Average variance extracted
LS	LS1	0.854	0.8063	0.5841
	LS2	0.775		
	LS3	0.650		
SC	SC1	0.943	0.7972	0.6691
	SC2	0.670		
SOC	SOC1	0.720	0.6909	0.5278
	SOC2	0.733		