

CONTRIBUTION BEHAVIOR IN VIRTUAL COMMUNITIES: COGNITIVE, EMOTIONAL, AND SOCIAL INFLUENCES

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Appendix A

Results of Assessing Common Method Bias

We examined the robustness of the results with four approaches. First, as Podsakoff et al. (2003) recommend, we employed Harman's one-factor test. This test assesses the threat of common method bias by indicating whether a single latent factor offers a viable alternative explanation of the analysis. The one-factor latent model yielded a chi-square of 6063.27 (d.f. = 209). The fit of the one-factor model was significantly worse than that of the measurement model. Therefore, we gained preliminary evidence that the measurement model was robust to common method variance.

Second, considering possible limitations of Harman's one-factor test, we employed Lindell and Whitney's (2001) marker variable assessment technique. We chose attractiveness of uploaded photos (AUP) as the marker variable for the analysis, because it is theoretically unrelated to our dependent variable of we-intentions. The we-intentions and AUP exhibited nonsignificant correlations of .02. Therefore, we used AUP's measured correlation with the dependent variable as an indication of method variance. None of the significant correlations in the overall model became insignificant after adjustment, providing additional evidence against the existence of common method bias in our data.

Third, we added an unmeasured latent method factor and allowed all self-reported items to load on both their theoretical constructs and the method factor (Bagozzi 2011). This model fit well: $\chi^2[199] = 451.31$, $p \approx .00$, RMSEA = .036, SRMR = .035, NNFI = .99, and CFI = .99. All item loadings on the common method factor were much lower than the loadings on their respective constructs, and the structural model estimates for our hypothesized effects remained virtually unchanged after we introduced the method factor, which also suggests that common method bias did not bias the results.

Finally, common method bias was unlikely to explain the hypothesized moderating effect of members' experience level on the link between we-intentions and contribution behavior, because the survey respondents should not have easily anticipated any complicated interactive relationships in the framework (Aiken and West 1991). Collectively, across the four criteria we examined, we can conclude that common method bias does not present a significant threat to the study.

Appendix B

Correlation Matrix of Latent Variables for Full Sample

	M ^a	SD ^b	QN	QL	WEI	DES	SN	GN	CSI	ASI	ESI	PAE	NAE	ATT	PBC
Quantity of Contribution (QN)	— ^c	— ^d	n/a												
Quality of Contribution (QL)	— ^e	— ^f	.85 (.04)	n/a											
We-Intentions (WEI)	3.97	.76	.33 (.03)	.35 (.03)	.90*										
Desires (DES)	5.38	1.19	.34 (.03)	.33 (.03)	.76 (.03)	.92									
Subjective Norms (SN)	5.18	1.45	.24 (.03)	.22 (.03)	.58 (.03)	.49 (.03)	.77								
Group Norms (GN)	4.95	1.29	.05 (.03)	.08 (.03)	.47 (.03)	.60 (.03)	.51 (.03)	.86							
Cognitive Social Identity (CSI)	4.43	1.21	.03 (.03)	.01 (.03)	.44 (.03)	.55 (.03)	.58 (.03)	.56 (.03)	.75						
Affective Social Identity (ASI)	5.03	1.18	.15 (.03)	.13 (.03)	.58 (.03)	.78 (.03)	.67 (.03)	.65 (.03)	.76 (.03)	.85					
Evaluative Social Identity (ESI)	3.95	1.44	.11 (.03)	.10 (.03)	.46 (.03)	.61 (.03)	.58 (.03)	.49 (.03)	.58 (.03)	.71 (.03)	.96				
Positive Anticipated Emotions (PAE)	5.45	1.23	.12 (.03)	.10 (.03)	.55 (.03)	.67 (.03)	.67 (.03)	.53 (.03)	.60 (.03)	.69 (.03)	.51 (.03)	.89			
Negative Anticipated Emotions (NAE)	4.15	1.62	.12 (.03)	.11 (.03)	.44 (.03)	.55 (.03)	.63 (.03)	.38 (.04)	.58 (.03)	.64 (.03)	.51 (.03)	.67 (.04)	.90		
Attitudes (ATT)	5.89	1.20	.13 (.03)	.11 (.03)	.36 (.03)	.47 (.03)	.40 (.03)	.46 (.03)	.35 (.03)	.43 (.03)	.34 (.03)	.42 (.03)	.30 (.03)	.95	
Perceived Behavioral Control (PBC)	5.80	1.07	.32 (.03)	.33 (.03)	.61 (.03)	.54 (.03)	.33 (.03)	.40 (.03)	.27 (.03)	.36 (.03)	.31 (.03)	.31 (.03)	.14 (.03)	.25 (.03)	.85

Notes: ^aM = Mean, ^bSD = Standard Deviation. ^cM(QN_{article}) = 5.63, M(QN_{photo}) = 22.48; ^dSD(QN_{article}) = 10.41, SD(QN_{photo}) = 69.18; ^eM(QL_{article}) = 1.36, eM(QL_{photo}) = .74; ^fSD(QL_{article}) = 1.08, SD(QL_{photo}) = 1.14. *The diagonal elements represent the square root of AVE.

Appendix C

Chi-Square to Evaluate Discriminant Validity of Factor Pairs

	QN	QL	WEI	DES	SN	GN	CSI	ASI	ESI	PAE	NAE	ATT
QL	17.50*											
WEI	182.34	179.52										
DES	168.00	168.48	73.30									
SN	352.28	357.99	192.24	139.93								
GN	388.10	368.75	185.79	151.96	128.06							
CSI	831.18	459.00	177.62	148.28	151.03	135.22						
ASI	346.57	36.89	178.37	121.89	157.80	135.45	87.41					
ESI	309.70	315.19	136.88	117.84	161.68	155.67	124.03	83.07				
PAE	28.34	295.86	127.58	96.55	126.70	137.46	10.45	95.93	87.32			
NAE	322.10	337.14	153.05	121.78	205.32	143.51	106.72	101.83	117.30	66.49		
ATT	316.78	328.31	206.70	165.66	255.36	201.27	127.43	111.58	129.93	78.22	64.92	
PBC	207.89	205.93	85.44	115.84	225.64	206.68	222.35	244.49	208.43	218.40	205.77	301.81

Notes: QN = Quantity of Contribution, QL = Quality of Contribution, WEI = We-Intentions, DES = Desires, SN = Subjective Norms, GN = Group Norms, CSI = Cognitive Social Identity, ASI = Affective Social Identity, ESI = Evaluative Social Identity, PAE = Positive Anticipated Emotions, NAE = Negative Anticipated Emotions, ATT = Attitudes, PBC = Perceived Behavioral Control.

*The difference in the chi-square values of the two models (i.e., the baseline and the constrained model), with one degree of freedom.

References

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