Information System Success: Individual and Organizational Determinants[1]

by

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Management Science

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Online Supplement

Appendix A: Meta Analysis Sample

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[a] This study was excluded since it used same data set as Rai and Bajwa (1997).
[b] This study did not examine IS success, but it examined relationships among the non-IS success constructs in our model.

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[c] This study was excluded since it uses same data set as Doll and Torkzadeh (1990).
[d] This study did not examine IS success, but it examined relationships among the non-IS success constructs in our model.
[e] This study did not examine IS success, but it examined relationships among the non-IS success constructs in our model.

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[f] This study was excluded since it uses same data set as Guimaraes, Staples and McKeen (2003).
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[h] This study did not examine IS success, but it examined relationships among the non-IS success constructs in our model.
[i] This study was excluded since it uses same data set as Lee, Kim and Lee (1995).
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[k] This study did not examine IS success, but it examined relationships among the non-IS success constructs in our model.
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[m] This study did not examine IS success, but it examined relationships among the non-IS success constructs in our model.
[n] This study was excluded since it uses same data set as Yoon and Guimaraes (1995).

Appendix B: Study Correlations Coded for Meta-Analysis

Obs#[a]	Sty#[b]	Var1[c]	Var2	N[d]	ObsR[e]	CorR[f]
1	1	SQ	PU	116	0.60	0.69
2	1	SQ	PU	73	0.75	0.79
3	1	SQ	SU	116	0.30	0.35
4	1	SQ	SU	73	0.42	0.48
5	1	PU	SU	116	0.35	0.41
6	1	PU	SU	73	0.44	0.48
7	2	SQ	SU	73	0.49	0.57
8	3	SQ	PU	76	0.72	0.83
9	4	EXP	TRG	230	-0.01	-0.02
10	4	EXP	ATT	230	0.16	0.19
11	4	EXP	SQ	230	0.24	0.28
12	4	EXP	PU	230	0.19	0.21
13	4	TRG	ATT	230	0.08	0.10
14	4	TRG	SQ	230	0.00	0.01
15	4	TRG	PU	230	0.09	0.11
16	4	ATT	SQ	230	0.87	1.02
17	4	ATT	PU	230	0.76	0.85
18	4	SQ	PU	230	0.60	0.66
19	5	SQ	PU	288	0.55	0.60
20	6	TRG	ATT	71	0.11	0.13
21	6	TRG	SQ	71	0.13	0.15
22	6	ATT	SQ	71	0.60	0.67
23	7	TMS	FC	151	0.39	0.53
24	7	TMS	ATT	151	0.23	EX1[g]
25	7	TMS	PU	151	0.25	0.35
26	7	TMS	SU	151	0.76	EX1
27	7	FC	ATT	151	0.11	EX1
28	7	FC	PU	151	0.15	0.18
29	7	FC	SU	151	0.25	EX1
30	7	ATT	PU	151	0.40	EX1
31	7	ATT	SU	151	0.17	EX1
32	7	PU	SU	151	0.16	EX1
33	8	TMS	FC	143	0.26	0.35
34	8	TMS	ATT	143	0.46	0.62
35	8	TMS	US	143	0.37	0.46
36	8	FC	ATT	143	0.04	0.05
37	8	FC	US	143	0.05	0.06
38	8	ATT	US	143	0.44	0.52
39	9	PART	US	52	0.43	0.48
40	10	FC	US	614	0.07	0.08
41	10	TRG	US	614	0.10	0.12
42	10	ATT	US	614	0.14	0.16
43	10	SQ	US	614	0.26	0.31
44	11	FC	EXP	506	0.27	0.31
45	11	FC	ATT	506	0.51	0.60
46	11	FC	SU	506	0.14	0.17
47	11	FC	US	506	0.15	0.17
48	11	EXP	ATT	506	0.26	0.30
49	11	EXP	SU	506	0.16	0.18
50	11	EXP	US	506	0.17	0.19
51	11	ATT	SU	506	0.19	0.22
52	11	ATT	US	506	0.32	0.36
53	11	US	SU	506	0.18	0.21
54	12	EXP	US	133	0.03	0.03
55	12	TRG	US	133	0.17	0.20
56	12	US	SU	133	0.00	0.00
57	14	TMS	FC	69	0.25	0.29
58	15	PU	US	46	0.28	0.30
59	15	PU	SU	46	0.04	0.04
60	15	US	SU	46	0.01	0.01
61	16	PART	SQ	75	-0.01	-0.01
62	17	PART	SU	200	0.28	0.34
63	17	PART	US	200	0.18	0.19
64	17	US	SU	200	0.28	0.33
65	18	FC	SU	38	-0.16	-0.19
66	18	EXP	SU	38	0.11	0.13
67	18	EXP	US	38	0.12	0.14
68	18	PU	SU	38	0.19	0.22
69	19	ATT	PU	77	0.67	0.72
70	19	ATT	PU	175	0.74	0.76
71	19	ATT	US	77	0.80	0.86
72	19	ATT	US	175	0.80	0.83
73	19	PU	US	77	0.55	0.58
74	19	PU	US	175	0.68	0.70

[a] Observation#: Unique identifier for each of the 630 findings coded from 121 studies in our sample.

[b] Study#: Unique identifier for the 130 studies in our sample. Same as what is used in Appendix A of the online supplement.

[c] Var1 and Var2: Constructs represented in a given relationship. Identifiers same as what is used in Table 2 of the paper.

[d] N: Sample size reported by the study for a given relationship.

[e] Observed R: Effect size reported by the study for a given relationship.

[f] Partially corrected R: Observed effect size corrected for measurement errors only (using reliabilities).

[g] EX1 refers to Exclusion Reason 1, i.e., when reliability for either variable in the bivariate relationship was below 0.60.

Obs#	Sty#	Var1	Var2	N	ObsR	CorR
75	20	ATT	SU	40	0.26	0.30
76	21	SQ	US	126	0.36	0.41
77	22	FC	ATT	408	0.31	EX1
78	22	FC	SQ	408	0.14	EX1
79	22	FC	PU	408	0.39	EX1
80	22	ATT	SQ	408	0.18	0.25
81	22	ATT	PU	408	0.59	0.77
82	22	SQ	PU	408	0.09	0.11
83	23	US	SU	79	0.23	0.27
84	24	TMS	EXP	634	0.23	0.38
85	24	TMS	SQ	634	0.25	0.36
86	24	TMS	PU	634	0.42	0.61
87	24	TMS	SU	634	0.23	0.36
88	24	EXP	SQ	634	0.22	0.32
89	24	EXP	PU	634	0.40	0.57
90	24	EXP	SU	634	0.36	0.53
91	24	SQ	PU	634	0.35	0.46
92	24	SQ	SU	634	0.24	0.32
93	24	PU	SU	634	0.50	0.69
94	25	TMS	SU	101	0.05	0.06
95	25	TMS	US	101	0.01	0.01
96	25	PART	SU	101	0.37	0.41
97	25	PART	US	101	0.35	0.39
98	26	EXP	TRG	165	-0.13	-0.16
99	26	TRG	SU	165	-0.18	-0.22
100	27	SQ	PU	184	0.64	0.68
101	27	SQ	SU	184	0.45	0.52
102	27	PU	SU	184	0.63	0.71
103	28	SQ	PU	107	0.17	0.19
104	28	SQ	SU	107	0.20	0.23
105	28	PU	SU	107	0.68	0.79
106	30	PART	US	564	0.32	0.35
107	31	PART	US	618	0.31	0.33
108	32	US	SU	370	0.71	EX1
109	33	FC	SQ	341	0.17	0.27
110	33	FC	PU	341	0.00	0.00
111	33	SQ	PU	341	0.29	0.33
112	34	FC	PART	118	0.09	0.10
113	34	FC	PU	118	-0.01	-0.02
114	34	PART	PU	118	0.29	0.32
115	35	EXP	PU	279	0.04	0.05
116	35	EXP	PU	240	0.06	0.07
117	35	EXP	SU	279	0.16	0.19
118	35	EXP	SU	240	0.10	0.12
119	35	PU	SU	279	0.31	0.36
120	35	PU	SU	240	0.31	0.36
121	36	EXP	US	108	0.15	0.17

Obs#	Sty#	Var1	Var2	N	ObsR	CorR
122	36	EXP	US	79	0.03	0.03
123	37	US	SU	170	0.26	0.30
124	38	EXP	ATT	69	0.18	0.22
125	39	TMS	FC	252	0.80	0.96
126	40	TMS	EXP	118	0.15	0.18
127	40	TMS	TRG	118	0.33	0.40
128	40	TMS	PART	118	-0.10	-0.11
129	40	TMS	PU	118	-0.06	-0.07
130	40	EXP	TRG	118	0.16	0.20
131	40	EXP	PART	118	0.13	0.15
132	40	EXP	PU	118	0.15	0.18
133	40	EXP	US	118	0.16	0.19
134	40	TRG	PART	118	0.10	0.12
135	40	TRG	PU	118	0.15	0.19
136	40	TRG	US	118	0.14	0.17
137	40	PART	PU	118	0.25	0.29
138	40	PART	US	118	0.06	0.07
139	40	PU	US	118	0.48	0.58
140	41	EXP	TRG	228	-0.13	-0.16
141	41	EXP	PART	228	0.34	0.39
142	41	EXP	SQ	228	0.33	0.37
143	41	TRG	PART	228	0.48	0.55
144	41	TRG	SQ	228	0.54	0.61
145	41	PART	SQ	228	0.74	0.80
146	43	TMS	ATT	114	0.23	0.30
147	43	TMS	PART	114	-0.06	-0.07
148	43	TMS	SQ	114	0.34	0.39
149	43	TMS	PU	114	0.28	0.35
150	43	TMS	SU	114	0.25	0.29
151	43	ATT	PART	114	0.21	0.27
152	43	ATT	SQ	114	0.07	0.09
153	43	ATT	PU	114	0.18	0.26
154	43	ATT	SU	114	0.43	0.59
155	43	ATT	US	114	0.19	0.26
156	43	PART	SQ	114	-0.05	-0.06
157	43	PART	PU	114	0.31	0.37
158	43	PART	SU	114	0.09	0.10
159	43	PART	US	114	0.20	0.23
160	43	SQ	PU	114	0.41	0.52
161	43	SQ	SU	114	0.35	0.42
162	43	SQ	US	114	0.37	0.44
163	43	PU	US	114	0.22	0.29
164	43	PU	SU	114	0.36	0.47
165	43	US	SU	114	0.50	0.61
166	44	TMS	FC	185	0.06	0.08
167	44	TMS	SQ	185	-0.14	-0.17
168	44	FC	SQ	185	-0.22	-0.26

Obs#	Sty#	Var1	Var2	N	ObsR	CorR
169	45	US	SU	168	0.28	0.33
170	46	TMS	EXP	106	-0.05	-0.06
171	46	TMS	TRG	106	0.28	0.35
172	46	TMS	ATT	106	0.02	0.02
173	46	TMS	SQ	106	0.27	0.32
174	46	TMS	PU	106	0.42	0.49
175	46	TMS	SU	106	0.42	0.51
176	46	EXP	TRG	106	0.02	0.02
177	46	EXP	ATT	106	0.36	0.43
178	46	EXP	SQ	106	0.12	0.14
179	46	EXP	PU	106	-0.04	-0.05
180	46	EXP	SU	106	0.06	0.07
181	46	TRG	ATT	106	0.15	0.18
182	46	TRG	SQ	106	0.49	0.59
183	46	TRG	PU	106	0.46	0.55
184	46	TRG	SU	106	0.59	0.73
185	46	ATT	SQ	106	0.24	0.28
186	46	ATT	PU	106	0.02	0.02
187	46	ATT	SU	106	0.16	0.19
188	46	SQ	PU	106	0.65	0.74
189	46	SQ	SU	106	0.51	0.61
190	46	PU	SU	106	0.58	0.68
191	47	TMS	US	111	0.14	0.16
192	47	PART	US	111	0.17	0.19
193	47	PU	US	111	-0.22	-0.24
194	48	PART	US	93	0.05	0.06
195	49	SQ	PU	585	0.61	0.66
196	50	FC	EXP	422	0.24	0.29
197	50	FC	TRG	422	0.29	0.35
198	50	FC	ATT	422	0.21	0.25
199	50	FC	SU	422	0.28	0.33
200	50	EXP	TRG	422	0.11	0.13
201	50	EXP	ATT	422	0.37	0.43
202	50	EXP	SU	422	0.35	0.42
203	50	TRG	ATT	422	0.11	0.13
204	50	TRG	SU	422	0.13	0.15
205	50	ATT	SU	422	0.36	0.43
206	51	EXP	SU	471	0.19	0.23
207	51	TRG	SU	471	0.10	0.12
208	51	ATT	SU	471	0.27	0.31
209	51	SQ	SU	471	0.31	0.36
210	52	TMS	FC	187	0.55	0.70
211	52	TMS	EXP	187	0.21	0.28
212	52	TMS	TRG	187	0.01	0.01
213	52	TMS	ATT	187	0.24	0.30
214	52	TMS	PU	187	0.22	0.27
215	52	TMS	SU	187	0.24	0.31

Obs#	Sty#	Var1	Var2	N	ObsR	CorR
216	52	TMS	US	187	0.21	0.25
217	52	FC	EXP	187	0.28	0.36
218	52	FC	TRG	187	0.26	0.34
219	52	FC	ATT	187	0.30	0.36
220	52	FC	PU	187	0.29	0.35
221	52	FC	SU	187	0.39	0.49
222	52	FC	US	187	0.04	0.05
223	52	EXP	TRG	187	0.40	0.55
224	52	EXP	ATT	187	0.28	0.35
225	52	EXP	PU	187	0.04	0.05
226	52	EXP	SU	187	0.30	0.39
227	52	EXP	US	187	0.13	0.16
228	52	TRG	ATT	187	0.31	0.39
229	52	TRG	PU	187	0.01	0.01
230	52	TRG	US	187	0.07	0.09
231	52	TRG	SU	187	0.40	0.54
232	52	ATT	PU	187	0.15	0.17
233	52	ATT	SU	187	0.04	0.04
234	52	ATT	US	187	0.16	0.18
235	52	PU	US	187	0.07	0.08
236	52	PU	SU	187	0.07	0.08
237	52	US	SU	187	0.14	0.17
238	53	FC	US	104	0.36	0.42
239	53	EXP	US	104	0.26	0.32
240	53	ATT	US	104	0.21	0.24
241	53	US	SU	104	0.27	0.33
242	54	TMS	SU	85	0.23	0.28
243	54	FC	SU	85	0.03	0.04
244	54	EXP	SU	85	0.18	0.22
245	54	ATT	SU	85	0.18	0.22
246	54	US	SU	85	0.20	0.23
247	55	TMS	FC	225	0.55	0.65
248	55	TMS	FC	251	0.19	0.23
249	55	TMS	EXP	225	0.09	0.11
250	55	TMS	EXP	251	0.00	0.00
251	55	TMS	TRG	251	0.03	0.04
252	55	TMS	TRG	225	0.08	0.10
253	55	TMS	ATT	225	0.18	0.21
254	55	TMS	ATT	251	0.09	0.11
255	55	TMS	PU	225	0.24	0.29
256	55	TMS	PU	251	0.06	0.08
257	55	TMS	SU	225	0.11	0.13
258	55	TMS	SU	251	0.03	0.04
259	55	FC	EXP	225	0.18	0.22
260	55	FC	EXP	251	0.21	0.25
261	55	FC	TRG	251	0.07	0.09
262	55	FC	TRG	225	0.00	0.00

Obs#	Sty#	Var1	Var2	N	ObsR	CorR
263	55	FC	ATT	225	0.29	0.32
264	55	FC	ATT	251	0.32	0.37
265	55	FC	PU	225	0.33	0.38
266	55	FC	PU	251	0.27	0.32
267	55	FC	SU	225	0.27	0.30
268	55	FC	SU	251	0.13	0.15
269	55	EXP	TRG	251	0.59	0.73
270	55	EXP	TRG	225	0.42	0.53
271	55	EXP	ATT	225	0.40	0.48
272	55	EXP	ATT	251	0.44	0.52
273	55	EXP	PU	225	0.51	0.62
274	55	EXP	PU	251	0.47	0.57
275	55	EXP	SU	225	0.63	0.74
276	55	EXP	SU	251	0.54	0.63
277	55	TRG	ATT	251	0.25	0.29
278	55	TRG	ATT	225	0.15	0.18
279	55	TRG	PU	251	0.22	0.27
280	55	TRG	PU	225	0.23	0.28
281	55	TRG	SU	251	0.31	0.36
282	55	TRG	SU	225	0.30	0.35
283	55	ATT	PU	225	0.57	0.66
284	55	ATT	PU	251	0.64	0.74
285	55	ATT	SU	225	0.41	0.45
286	55	ATT	SU	251	0.42	0.47
287	55	PU	SU	225	0.52	0.59
288	55	PU	SU	251	0.49	0.56
289	56	PART	SQ	185	0.06	0.07
290	56	PART	PU	185	0.45	0.49
291	56	PART	SU	185	0.14	0.16
292	56	PART	US	185	0.46	0.48
293	56	SQ	PU	185	0.04	0.04
294	56	SQ	SU	185	0.04	0.05
295	56	SQ	US	185	0.07	0.08
296	56	PU	US	185	0.63	0.68
297	56	PU	SU	185	0.22	0.26
298	56	US	SU	185	0.22	0.25
299	57	TMS	EXP	450	0.08	0.09
300	57	TMS	ATT	450	0.07	0.08
301	57	TMS	SQ	450	0.14	0.16
302	57	TMS	PU	450	0.20	0.22
303	57	TMS	SU	450	0.11	0.12
304	57	EXP	ATT	450	0.26	0.29
305	57	EXP	SQ	450	0.30	0.31
306	57	EXP	PU	450	0.22	0.22
307	57	EXP	SU	450	0.33	0.34
308	57	ATT	PU	450	0.15	0.17
309	57	ATT	SU	450	0.14	0.16
310	57	SQ	PU	450	0.52	0.55
311	57	SQ	SU	450	0.27	0.29
312	57	PU	SU	450	0.45	0.47
313	59	TMS	FC	105	0.52	0.61
314	59	TMS	FC	107	0.68	0.80
315	59	TMS	EXP	105	0.21	0.26
316	59	TMS	EXP	107	0.03	0.04
317	59	TMS	TRG	107	0.20	0.25
318	59	TMS	TRG	105	0.15	0.18
319	59	TMS	SQ	105	0.24	0.29
320	59	TMS	SQ	107	0.20	0.24
321	59	TMS	PU	105	0.15	0.18
322	59	TMS	PU	107	0.13	0.15
323	59	TMS	SU	105	0.29	0.35
324	59	TMS	SU	107	0.23	0.27
325	59	FC	EXP	105	0.14	0.17
326	59	FC	EXP	107	0.09	0.11
327	59	FC	TRG	107	0.09	0.12
328	59	FC	TRG	105	0.14	0.16
329	59	FC	SQ	105	0.07	0.08
330	59	FC	SQ	107	0.31	0.39
331	59	FC	PU	105	0.08	0.10
332	59	FC	PU	107	0.40	0.49
333	59	FC	SU	105	0.19	0.23
334	59	FC	SU	107	0.32	0.39
335	59	EXP	TRG	107	0.42	0.55
336	59	EXP	TRG	105	0.36	0.43
337	59	EXP	SQ	105	0.24	0.29
338	59	EXP	SQ	107	0.28	0.36
339	59	EXP	PU	105	0.19	0.24
340	59	EXP	PU	107	0.29	0.36
341	59	EXP	SU	105	0.45	0.56
342	59	EXP	SU	107	0.27	0.34
343	59	TRG	SQ	107	0.28	0.37
344	59	TRG	SQ	105	0.24	0.28
345	59	TRG	PU	107	0.33	0.42
346	59	TRG	PU	105	0.36	0.42
347	59	TRG	SU	107	0.28	0.34
348	59	TRG	SU	105	0.55	0.66
349	59	SQ	PU	105	0.37	0.43
350	59	SQ	PU	107	0.40	0.50
351	59	SQ	SU	105	0.27	0.33
352	59	SQ	SU	107	0.27	0.34
353	59	PU	SU	105	0.39	0.47
354	59	PU	SU	107	0.40	0.49
355	60	TMS	PU	471	0.27	0.32
356	60	TMS	SU	471	0.21	0.23

Obs#	Sty#	Var1	Var2	N	ObsR	CorR
357	60	PU	SU	471	0.40	0.46
358	61	TMS	FC	379	0.44	0.53
359	61	TMS	EXP	379	-0.02	-0.02
360	61	TMS	TRG	379	0.13	0.16
361	61	TMS	PU	379	0.35	0.41
362	61	TMS	SU	379	0.24	0.29
363	61	TMS	US	379	0.27	0.31
364	61	FC	EXP	379	0.04	0.05
365	61	FC	TRG	379	0.22	0.27
366	61	FC	PU	379	0.27	0.31
367	61	FC	SU	379	0.09	0.11
368	61	FC	US	379	0.32	0.37
369	61	EXP	TRG	379	0.36	0.44
370	61	EXP	PU	379	0.22	0.25
371	61	EXP	SU	379	0.18	0.22
372	61	EXP	US	379	0.11	0.13
373	61	TRG	PU	379	0.12	0.14
374	61	TRG	US	379	0.13	0.15
375	61	TRG	SU	379	0.20	0.25
376	61	PU	US	379	0.36	0.40
377	61	PU	SU	379	0.27	0.32
378	61	US	SU	379	0.22	0.26
379	62	PU	US	371	0.48	0.51
380	62	PU	SU	371	0.37	0.40
381	62	US	SU	371	0.39	0.42
382	63	TMS	FC	358	0.27	0.29
383	63	TMS	TRG	358	0.08	0.08
384	63	TMS	SQ	358	0.08	0.09
385	63	TMS	PU	358	0.30	0.32
386	63	TMS	SU	358	0.20	0.23
387	63	FC	TRG	358	0.18	0.20
388	63	FC	SQ	358	0.07	0.07
389	63	FC	PU	358	0.16	0.17
390	63	FC	SU	358	0.13	0.15
391	63	TRG	SQ	358	0.10	0.10
392	63	TRG	SU	358	0.17	0.20
393	63	SQ	PU	358	0.47	0.50
394	63	SQ	SU	358	0.44	0.50
395	63	PU	SU	358	0.42	0.48
396	64	TMS	EXP	63	0.10	0.14
397	64	TMS	TRG	63	0.12	0.17
398	64	TMS	PART	63	0.04	0.06
399	64	TMS	SQ	63	0.20	0.29
400	64	TMS	PU	63	0.18	0.24
401	64	TMS	SU	63	0.34	EX1
402	64	EXP	TRG	63	0.10	0.13
403	64	EXP	PART	63	0.13	0.17

Obs#	Sty#	Var1	Var2	N	ObsR	CorR
404	64	EXP	SQ	63	0.30	0.39
405	64	EXP	PU	63	0.31	0.38
406	64	EXP	SU	63	0.28	EX1
407	64	TRG	PART	63	0.18	0.23
408	64	TRG	SQ	63	0.08	0.10
409	64	TRG	PU	63	0.04	0.05
410	64	PART	SQ	63	-0.12	-0.16
411	64	PART	PU	63	0.23	0.29
412	64	PART	SU	63	0.09	EX1
413	64	SQ	PU	63	0.39	0.49
414	64	SQ	SU	63	0.31	EX1
415	64	PU	SU	63	0.36	EX1
416	65	PART	US	306	0.43	0.46
417	66	ATT	PART	111	-0.08	-0.09
418	66	ATT	SQ	111	0.52	0.57
419	66	ATT	PU	111	0.57	0.65
420	66	PART	SQ	111	-0.08	-0.08
421	66	PART	PU	111	0.13	0.15
422	66	SQ	PU	111	0.29	0.34
423	67	TMS	FC	57	0.23	0.28
424	68	FC	US	324	0.65	0.75
425	68	SQ	US	324	0.54	0.61
426	69	FC	US	226	0.66	0.75
427	69	SQ	US	226	0.53	0.59
428	70	PART	US	146	0.24	0.28
429	70	PART	US	146	0.34	0.37
430	71	TRG	ATT	290	0.08	0.09
431	71	ATT	SQ	290	0.08	0.09
432	72	SQ	PU	177	0.47	0.54
433	72	SQ	SU	177	0.09	0.11
434	72	PU	SU	177	0.42	0.48
435	73	PART	US	29	0.25	0.29
436	75	PART	US	91	0.28	0.30
437	75	PART	US	91	0.33	0.35
438	75	PART	US	31	0.10	0.11
439	75	PART	US	31	0.20	0.21
440	76	EXP	PU	259	0.03	0.03
441	76	PU	SU	259	-0.03	-0.04
442	77	FC	EXP	97	0.10	0.12
443	78	TMS	US	96	0.42	0.54
444	78	TMS	US	59	0.54	0.69
445	78	PU	US	96	0.26	0.28
446	78	PU	US	59	0.36	0.39
447	79	EXP	SU	311	0.18	0.22
448	80	TMS	US	53	0.31	0.37
449	81	ATT	SU	236	0.38	0.46
450	81	ATT	US	236	0.47	0.55

Obs#	Sty#	Var1	Var2	N	ObsR	CorR
451	81	US	SU	236	0.29	0.33
452	82	TMS	TRG	88	-0.11	-0.14
453	82	TMS	SU	88	0.20	0.24
454	82	TRG	SU	88	0.23	0.28
455	83	TMS	SQ	161	0.51	0.59
456	83	TMS	PU	161	0.38	0.42
457	83	SQ	PU	161	0.33	0.37
458	84	ATT	SU	60	0.15	0.19
459	85	ATT	PART	32	0.33	0.38
460	85	ATT	US	32	0.60	0.69
461	85	PART	US	32	0.50	0.56
462	86	PART	US	172	0.57	0.64
463	87	FC	PART	97	0.18	0.20
464	88	FC	SU	66	0.07	0.08
465	88	FC	SU	39	-0.08	-0.10
466	88	TRG	SU	66	0.23	0.28
467	88	TRG	SU	39	0.17	0.21
468	88	US	SU	66	0.23	0.27
469	88	US	SU	39	-0.02	-0.02
470	90	PART	US	151	0.42	0.48
471	91	FC	US	169	0.28	0.31
472	91	TRG	US	169	0.26	0.33
473	92	US	SU	158	0.18	0.23
474	93	TRG	US	100	0.04	0.05
475	93	TRG	SU	100	0.02	0.02
476	93	US	SU	100	0.20	0.23
477	94	TMS	ATT	348	0.20	0.25
478	94	TMS	PART	348	0.19	0.23
479	94	TMS	SQ	348	0.37	0.45
480	94	TMS	PU	348	0.36	0.44
481	94	TRG	SQ	348	0.34	0.39
482	94	TRG	PU	348	0.23	0.27
483	94	ATT	PART	348	0.16	0.18
484	94	ATT	SQ	348	0.42	0.46
485	94	PART	SQ	348	0.18	0.19
486	94	PART	PU	348	0.16	0.17
487	94	SQ	PU	348	0.63	0.68
488	95	EXP	US	210	0.06	0.06
489	95	SQ	US	210	0.62	0.70
490	96	TMS	FC	210	0.41	0.47
491	97	SQ	PU	274	0.48	0.51
492	97	SQ	SU	274	0.37	0.47
493	97	SQ	US	274	0.55	0.68
494	97	PU	US	274	0.61	0.74
495	97	PU	SU	274	0.71	0.87
496	97	US	SU	274	0.52	0.74
497	98	PART	SQ	123	0.35	0.44
498	99	EXP	US	41	0.11	0.15
499	99	TRG	US	41	-0.09	-0.13
500	100	TRG	SU	70	0.44	0.54
501	101	FC	US	4448	0.55	EX2[h]
502	101	SQ	US	4448	0.62	EX2
503	102	TMS	SU	41	0.44	0.54
504	102	EXP	SU	41	0.32	0.39
505	102	TRG	SU	41	0.12	0.15
506	102	SQ	SU	41	0.40	0.48
507	103	TMS	US	132	0.39	0.45
508	103	TMS	US	156	0.45	0.52
509	103	TMS	US	90	0.33	0.38
510	103	EXP	US	132	0.32	0.36
511	103	EXP	US	156	0.23	0.26
512	103	EXP	US	90	0.28	0.32
513	103	TRG	US	132	0.40	0.47
514	103	TRG	US	156	0.27	0.32
515	103	TRG	US	90	0.48	0.56
516	104	TMS	PU	147	0.24	0.29
517	104	TMS	US	147	0.27	0.31
518	104	TRG	US	147	0.24	0.31
519	104	PART	PU	147	0.61	0.70
520	104	PART	US	147	0.32	0.35
521	104	SQ	PU	147	0.28	0.36
522	104	SQ	US	147	0.25	0.30
523	105	TMS	FC	212	0.24	0.29
524	105	TMS	TRG	209	-0.17	-0.21
525	105	TMS	ATT	212	0.25	0.30
526	105	TMS	SU	212	0.11	0.13
527	105	FC	TRG	209	-0.06	-0.07
528	105	FC	ATT	212	0.11	0.13
529	105	FC	SU	212	0.15	0.18
530	105	TRG	ATT	209	0.14	0.17
531	105	TRG	SU	209	0.12	0.15
532	105	ATT	SU	212	0.11	0.13
533	106	EXP	US	137	0.11	0.13
534	106	TRG	US	137	0.14	0.17
535	107	PART	SQ	104	0.42	0.46
536	107	PART	PU	104	0.62	0.65
537	107	PART	US	104	0.46	0.50
538	107	SQ	PU	104	0.62	0.65
539	107	SQ	US	104	0.70	0.77
540	107	PU	US	104	0.71	0.75
541	108	ATT	SQ	203	0.67	0.79

[h] EX2 refers to Exclusion Reason 2, i.e., when sample size exceeded 500 and the reliability for at least one variable was not reported.

Obs#	Sty#	Var1	Var2	N	ObsR	CorR
542	108	ATT	PU	203	0.53	0.62
543	108	SQ	PU	203	0.40	0.46
544	109	SQ	PU	61	0.39	0.41
545	109	SQ	SU	61	0.21	0.24
546	109	PU	SU	61	0.16	0.18
547	110	PU	US	538	0.16	0.19
548	111	FC	ATT	212	0.13	0.18
549	111	FC	PU	212	0.14	0.17
550	111	FC	SU	212	0.11	0.15
551	111	ATT	PU	212	0.52	0.73
552	111	ATT	SU	212	0.32	0.51
553	111	PU	SU	212	0.38	0.52
554	112	FC	EXP	219	-0.16	-0.20
555	112	FC	ATT	219	0.07	0.08
556	112	FC	PU	219	-0.04	-0.05
557	112	FC	SU	219	-0.12	-0.14
558	112	EXP	ATT	219	0.17	0.22
559	112	EXP	PU	219	0.31	0.38
560	112	EXP	SU	219	0.45	0.57
561	112	ATT	PU	219	0.22	0.25
562	112	ATT	SU	219	0.34	0.40
563	112	PU	SU	219	0.51	0.59
564	113	PART	PU	409	0.32	0.34
565	113	PART	US	409	0.30	0.32
566	113	PU	US	409	0.40	0.43
567	114	PART	US	282	0.60	0.66
568	115	FC	ATT	205	-0.06	-0.07
569	115	FC	SQ	205	0.40	0.44
570	115	FC	PU	205	0.11	0.12
571	115	ATT	SQ	205	0.35	0.39
572	115	ATT	PU	205	0.26	0.29
573	115	SQ	PU	205	0.35	0.38
574	116	SQ	PU	98	0.30	0.34
575	117	SQ	PU	342	0.22	0.24
576	118	FC	ATT	215	0.18	0.22
577	118	FC	SQ	215	0.31	0.36
578	118	FC	PU	215	0.19	0.22
579	118	ATT	SQ	215	0.26	0.31
580	118	ATT	PU	215	0.16	0.19
581	118	SQ	PU	215	0.30	0.33
582	119	US	SU	310	0.04	0.04
583	121	ATT	PART	95	0.01	0.01
584	121	ATT	PART	77	0.35	0.40
585	122	TMS	TRG	106	0.41	0.51
586	122	TMS	SQ	106	-0.03	-0.04
587	122	TMS	SU	106	0.11	0.14
588	122	TMS	US	106	0.15	0.18

Obs#	Sty#	Var1	Var2	N	ObsR	CorR
589	122	TRG	SQ	106	-0.23	-0.28
590	122	TRG	US	106	0.05	0.06
591	122	TRG	SU	106	0.15	0.18
592	122	SQ	SU	106	0.45	0.54
593	122	SQ	US	106	0.44	0.50
594	122	US	SU	106	0.60	0.70
595	123	US	SU	168	0.28	0.33
596	124	TMS	FC	111	0.41	0.51
597	124	TMS	PART	111	0.46	0.59
598	124	TMS	SQ	111	0.28	0.35
599	124	TMS	PU	111	0.18	0.22
600	124	FC	PART	111	0.16	0.19
601	124	FC	SQ	111	0.34	0.39
602	124	FC	PU	111	0.29	0.33
603	124	PART	SQ	111	0.01	0.01
604	124	PART	PU	111	0.03	0.04
605	124	SQ	PU	111	0.59	0.68
606	125	ATT	SQ	211	0.40	0.47
607	125	ATT	PU	211	0.53	0.61
608	125	ATT	SU	211	0.26	0.31
609	125	SQ	PU	211	0.45	0.51
610	125	SQ	SU	211	0.36	0.43
611	125	PU	SU	211	0.31	0.36
612	126	PART	US	43	0.23	0.25
613	126	PART	US	50	0.30	0.33
614	127	TMS	TRG	67	0.08	0.10
615	127	TMS	SU	67	0.03	0.04
616	128	TMS	PART	69	0.17	0.19
617	128	TMS	SQ	69	0.31	0.35
618	128	TMS	PU	69	0.22	0.25
619	128	TMS	SU	69	0.41	0.49
620	128	TMS	US	69	0.27	0.32
621	128	PART	SQ	69	0.37	0.39
622	128	PART	PU	69	0.31	0.34
623	128	PART	SU	69	0.12	0.14
624	128	PART	US	69	0.34	0.38
625	128	SQ	PU	69	0.31	0.34
626	128	SQ	SU	69	0.34	0.39
627	128	SQ	US	69	0.35	0.39
628	128	PU	US	69	0.31	0.35
629	128	PU	SU	69	0.21	0.25
630	128	US	SU	69	0.54	0.64

Appendix C: Additional Details Related to the Meta-analysis

Accumulating Findings: Some Comments

- If a variable's reliability was not reported in a study, we used its mean reliability across all studies (Bamberger, Kluger and Suchard 1999).
- Most individual studies used 7-point scales for the variables. However, some studies employed 5-point or 10-point scales. To convert non-7-point scales to 7-point scales, we multiplied the means and standard deviations for the other scales by the ratio of the mid-point of the 7-point scale (i.e., 4) to the mid-point of that scale (e.g., 3 for the 5-point scale).

Tests of Publication Bias

A funnel plot is used as an "eye-ball" test for determining publication bias in a meta-analysis (Cooper and Hedges, 1994). When a meta-analytic study examines a single relationship of interest (e.g. system usage vs. user satisfaction) (e.g., McEvoy and Cascio 1987), a funnel plot can be used without problems. However, our meta-analysis examines 45 different relationships, and therefore the use of funnel plots is not straightforward. It requires generating one funnel plot for each relationship. Moreover, publication bias may not be the only reason for problematic funnel plots (Cooper and Hedges, 1994). It is possible that certain relationships have received less attention in the literature (e.g. user training in ISs with user participation in the development of the specific IS), including not only the published studies but the unpublished ones as well. Funnel plots should therefore be viewed with caution, and should be viewed in conjunction with other tests, such as Failsafe N and a χ^2 test of the dispersion of studies around the mean observed correlation.

We generated funnel plots for the various relationships involving the four IS success constructs, resulting in a total of 30 plots: six among the four IS success constructs and 24 between the six non-IS success constructs and the four IS constructs. The funnel plots were created using the effect size (X-axis) and the sample size (Y-axis). The funnel plots[a] did not indicate publication bias to be a problem. The studies are distributed such that the fat lower ends of the upside-down funnels are not truncated.

For each relationship, we also computed a χ^2 statistic for the dispersion of observed correlations around the mean observed correlation. We used the number of observed correlations, and the expected number of correlations, above and below the mean, to compute the χ^2 statistic. It was not significant for any of the 45 relationships, indicating that the study effect sizes are distributed evenly around the mean observed correlation for all relationships in our analysis (Cooper and Hedges 1994).

Together, these results and the Failsafe Ns given in Table 1 of the paper (e.g., the ratio of Failsafe N to the number of observations upon which the correlation for that relationship was based varied from 1.2 to 9.0, and exceeded or equaled 2.0 for all but one of the relationships) indicate that publication bias was not a significant problem in this study.

Homogeneity Tests

We conducted homogeneity tests for each relationship based on the procedures[b] recommended by Hedges and Olkin (1985), Cooper and Hedges (1994), and Lipsey and Wilson (2001). We found the original sets of observations to be homogeneous for eight of the 45 relationships in the theoretical model. To obtain homogeneous sets of observations for the remaining 37 relationships, we successively dropped one observation based on the weighted deviates to identify outliers (Hedges and Olkin 1985; Brown and Stayman 1992). Using meta-analysis, we obtained two corrected correlation matrices: one for the complete set of observations and the other for the homogeneous set of observations. We next conducted a test of overall equality of these two correlation matrices, as described by Werts et al. (1976) and later used by

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[a] The funnel plots and the χ^2 statistics are available from the authors upon request.

[b] For each relationship in the research model, we first obtained the Fisher z (z_i) statistics using the observed correlations (r_i) gathered from individual studies. We next computed the weighted mean effect size ($\bar{z}$) using the Fisher z statistics. For this purpose, the weights $w_i = n_i - 3$ where n_i is the sample size. Finally, we computed the Q statistic, asymptotically distributed as a χ^2 distribution with (k – 1) degrees of freedom: $Q = \sum_{i=1}^{k} w_i \left(z_i - \bar{z}\right)^2$.

Brown and Peterson (1993) in a study combining meta-analysis and LISREL. This test consists of specifying a two-group confirmatory factor analysis such that the correlation coefficients are invariant across the two groups[c]. The LISREL results support the model assuming that one set of correlation parameters fit the data for both groups χ^2/degrees of freedom ratio = 2.19, GFI = 0.96, NFI = 0.95, RMSEA = 0.059, SRMR = 0.042), thus showing the overall equality of these two correlation matrices. We therefore used the correlation matrix based on all studies in the subsequent LISREL analysis. This approach is consistent with Brown and Peterson, and utilizes the findings across the entire research stream.

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[c] The sample sizes used here were the minimum sample sizes for the two correlation matrices, i.e., 326 and 285, respectively.

Appendix D: Sensitivity Analysis

To further evaluate the robustness of our results, we tested the emergent model under five other circumstances. We applied the meta-analytic procedures on four different random sub-samples of our full sample of studies. The sub-samples were created using the following procedure. First, we arranged our study sample in a non-decreasing order[a] of sample size. We dropped every tenth study (S-LH-10) and every twelfth study (S-LH-12) from this ordered sample beginning with the first study to create the first two sub-samples. Next, we arranged our study sample in non-increasing order of sample size. We dropped every tenth study (S-HL-10) and every twelfth study (S-HL-12) from this ordered sample, beginning with the first study, to create the third and fourth sub-samples. LISREL tests of the emergent model were conducted using the correlation matrices for each of these four sub-samples.

Next, instead of assuming the reliabilities of the variables as 1.00 (as was done in the testing of the theoretical model because meta-analysis corrects for reliabilities), the reliabilities of all the variables were treated as 0.90 (i.e., the paths between the latent constructs and observed variables were set to 0.95, the square root of the reliability) and the error variances were set to equal the variance of the scale multiplied by one minus reliability. These revised parameters were the used in LISREL tests of the emergent model.

The results for the above five robustness tests support the emergent model. For each test of robustness, the emergent model fit the data well, with CFI, GFI, AGFI, NFI, and NNFI all exceeding 0.90, RMSEA and SRMR being both below 0.10, and χ^2/degree of freedom ratio being below 3.0. Only six t-statistics (out of 125 examined, with 25 paths in each of five models) were non-significant (at $p \leq 0.05$). Also, three of the non-significant paths were in one sub-sample (S-HL-12), wherein the minimum sample size, which was used as the sample size for the LISREL testing, had dropped from 326 to 181. No MI – out of 275 examined, with 55 excluded paths in each of the five models – was above 10.0.

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[a] Thus, each study had greater or equal sample size as compared to the previous study.

		N	GFI	NFI	RMSEA	χ^2	Number of Non-significant t-statistics	Number of Large ($\geq$ 10.0) Modification Indices
		CFI	AGFI	NNFI	SRMR	χ^2/d.f.[b] ratio		
MAIN	Emergent model (full sample, reliability = 1.00)	326	0.98	0.98	0.041	31.13	0	0
		0.99	0.95	0.98	0.046	1.56		
S-LH-10	Non-decreasing order, every tenth observation	285	0.97	0.97	0.062	42.14	1 (TRG-> SQ)	0
		0.98	0.92	0.96	0.052	2.11		
S-LH-12	Non-decreasing order, every twelfth observation	326	0.98	0.99	0.053	38.35	1 (ATT -> SU)	0
		0.99	0.94	0.97	0.051	1.92		
S-HL-10	Non-increasing order, every tenth observation	326	0.98	0.97	0.056	41.70	0	0
		0.98	0.93	0.96	0.054	2.09		
S-HL-12	Non-increasing order, every twelfth observation	181	0.98	0.98	0.001	17.24	3 (INV -> SQ, TRG -> SQ, TMS -> INV)	0
		0.99	0.95	0.99	0.046	0.86		
REL	Model with reliability = 0.90 instead of 1.00	326	0.98	0.98	0.031	26.32	1 (ATT -> SU)	0
		0.99	0.95	0.98	0.035	1.32		

We also tested the emergent model using harmonic mean sample size (1703) instead of the minimum sample size (326). This led to a substantial increase in χ^2, as expected, raising the χ^2 of 163.04 with 20 degrees of freedom, and the MIs for some paths exceeded 10.0. However, all the other indicators of model fit were excellent: GFI = 0.98, AGFI = 0.95, NFI = 0.98, RMSEA = 0.065, and SRMR = 0.046. If we had used the harmonic mean sample size to test and refine the model, the emergent model would fit the data well, although some additional paths might have been added based on these MIs and theoretical considerations, and some hypothesized paths that were not supported using minimum sample size might have been supported. But these additional paths would not be significant when using minimum sample size. In contrast, all the significant paths in the emergent model based on minimum sample size are also supported using the harmonic mean sample size ($p \leq 0.001$). Thus, the use of the minimum sample size produces more conservative results, which are strongly supported using the harmonic mean sample size. Therefore, we consider these results as best representing the correlations based on the meta-analysis.

[b] Degrees of freedom = 20 in each of these models.