

SHACKLED TO THE STATUS QUO: THE INHIBITING EFFECTS OF INCUMBENT SYSTEM HABIT, SWITCHING COSTS, AND INERTIA ON NEW SYSTEM ACCEPTANCE

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Appendix A

Psychometric Properties of Scales, Mediation Analysis, and Total Effects

Table A1. Descriptive Statistics and Inter-Construct Correlations from PLS

	Mean (Std Dev)	Comp. Reliab.	ABI	AWARE	BBI	CBI	CTRL	CogRig	EFFCH	EReact
ABI	3.87 (1.20)	0.81	0.83							
AWARE	5.24 (1.18)	0.94	0.13	0.90						
BBI	5.10 (1.22)	0.95	0.56	0.13	0.95					
CBI	4.32 (1.28)	0.94	0.45	0.12	0.61	0.91				
CTRL	4.16 (1.28)	0.92	0.27	0.55	0.25	0.21	0.86			
CogRig	3.96 (1.20)	0.90	0.28	0.03	0.14	0.15	0.18	0.90		
EFFCH	5.79 (0.77)	0.83	0.13	0.44	0.21	0.08	0.26	0.11	0.79	
EReact	4.42 (1.16)	0.86	0.25	0.11	0.22	0.17	0.28	0.28	0.00	0.83
GDExp	0.69 (2.09)	1.00	-0.15	-0.12	-0.11	-0.07	-0.09	-0.05	-0.10	-0.16
GDIntent	4.50 (1.32)	0.96	-0.46	0.06	-0.42	-0.36	-0.05	-0.24	-0.08	-0.09
GDPEOU	5.09 (0.92)	0.89	-0.41	0.03	-0.27	-0.37	-0.12	-0.19	0.02	-0.13
GDRA	4.89 (1.06)	0.93	-0.37	0.12	-0.30	-0.23	0.03	-0.17	-0.10	0.02
PIIT	4.51 (1.16)	0.91	-0.22	0.04	-0.22	-0.27	-0.08	-0.25	0.04	-0.26
RoutSeek	3.44 (1.06)	0.80	0.34	0.12	0.16	0.20	0.25	0.45	0.04	0.50
SE	6.48 (2.30)	0.95	-0.28	-0.01	-0.13	-0.14	-0.11	-0.12	0.09	-0.25
SN	3.64 (1.11)	n/a	-0.19	0.06	-0.24	-0.19	0.04	-0.15	-0.13	-0.06
STFocus	3.40 (1.13)	0.83	0.20	0.10	0.06	0.11	0.17	0.28	-0.07	0.47
SunkCost	3.84 (1.34)	0.93	0.36	0.10	0.09	0.11	0.25	0.14	-0.02	0.10
TranCost	3.01 (1.02)	0.90	0.35	-0.03	0.23	0.36	0.08	0.22	-0.10	0.23

Table A1. Descriptive Statistics and Inter-Construct Correlations from PLS (Continued)

	GDExp	GDIntent	GDPEOU	GDRA	PIIT	RoutSeek	SE	SN	STFocus	SunkCost	TranCost
GDExp	1.00										
GDIntent	0.15	0.96									
GDPEOU	0.17	0.62	0.90								
GDRA	0.10	0.71	0.55	0.90							
PIIT	0.23	0.32	0.29	0.16	0.87						
RoutSeek	-0.24	-0.21	-0.21	-0.11	-0.47	0.82					
SE	0.07	0.24	0.42	0.10	0.46	-0.31	0.93				
SN	0.15	0.55	0.35	0.45	0.27	-0.10	0.10	n/a			
STFocus	-0.18	-0.09	-0.16	0.00	-0.26	0.50	-0.21	0.02	0.80		
SunkCost	-0.03	-0.21	-0.25	-0.20	-0.03	0.20	-0.20	-0.04	0.04	0.93	
TranCost	-0.14	-0.48	-0.68	-0.30	-0.42	0.31	-0.57	-0.29	0.20	0.25	0.90

Legend: ABI = Affective-Based Inertia
 AWARE = Habit: Awareness
 BBI = Behavior-Based Inertia
 CBI = Cognitive-Based Inertia
 CogRig = Cognitive Rigidity
 CTRL = Habit: Controllability
 EFFCH = Habit: Mental Efficiency of Choice
 EReact = Emotional Reaction
 GDExp = Prior Google Docs Experience
 GDIntent = Usage Intention (Google Docs)
 GDPEOU = Perceived Ease of Use (Google Docs)
 GDRA = Relative Advantage (Google Docs)
 PIIT = Personal Innovativeness with IT
 RoutSeek = Routine Seeking
 SE = Self-Efficacy
 SN = Subjective Norm (Google Docs)
 STFocus = Short Term Focus
 SunkCost = Sunk Costs
 TranCost = Transition Costs

All constructs were measured on a 1–7 scale with the exception of Self-Efficacy, which was measured on a 10-point scale, and Prior Google Docs Experience, which was measured in number of months. Shaded diagonal represents square root of the AVE.

Table A2. PLS Item Factor Loadings and Cross Loadings

Construct	Item	ABI	AWARE	BBI	CBI	CogRig	CTRL	EFFCH	EReact	GDExp	GDIntent
ABI	ABI1	0.85	0.06	0.38	0.37	0.25	0.24	0.01	0.33	-0.13	-0.38
	ABI3	0.80	0.16	0.55	0.38	0.21	0.20	0.21	0.07	-0.11	-0.38
Aware	AWARE2	0.15	0.91	0.13	0.10	0.03	0.51	0.41	0.12	-0.11	0.04
	AWARE3	0.07	0.83	0.09	0.08	0.02	0.43	0.38	0.08	-0.10	0.11
	AWARE4	0.13	0.93	0.14	0.14	0.01	0.51	0.41	0.08	-0.11	0.02
	AWARE6	0.09	0.91	0.10	0.09	0.04	0.53	0.37	0.13	-0.13	0.08
BBI	BBI1	0.56	0.12	0.95	0.54	0.12	0.24	0.17	0.20	-0.11	-0.40
	BBI3	0.50	0.13	0.95	0.61	0.15	0.23	0.23	0.22	-0.09	-0.39
CBI	CBI1	0.42	0.14	0.57	0.90	0.12	0.19	0.08	0.15	-0.04	-0.25
	CBI2	0.41	0.09	0.53	0.91	0.17	0.19	0.07	0.13	-0.08	-0.41
	CBI3	0.41	0.12	0.57	0.93	0.11	0.19	0.07	0.19	-0.08	-0.29
CogRig	CR1	0.26	0.04	0.13	0.14	0.91	0.17	0.07	0.28	-0.01	-0.21
	CR3	0.25	0.01	0.13	0.13	0.90	0.16	0.13	0.22	-0.08	-0.23
CTRL	CTRL1	0.24	0.34	0.24	0.22	0.17	0.80	0.23	0.28	-0.09	-0.12
	CTRL2	0.23	0.52	0.20	0.16	0.16	0.90	0.21	0.20	-0.07	-0.05
	CTRL5	0.20	0.52	0.16	0.12	0.11	0.84	0.21	0.22	-0.11	0.06
	CTRL7	0.23	0.54	0.23	0.20	0.16	0.88	0.25	0.22	-0.06	-0.02
EFFCH	EFFCH1	0.07	0.19	0.21	0.07	0.06	0.13	0.77	0.03	-0.09	-0.09
	EFFCH2	0.15	0.46	0.15	0.09	0.12	0.26	0.84	-0.04	-0.03	-0.05
	EFFCH5	0.07	0.43	0.11	0.01	0.07	0.27	0.74	0.01	-0.15	-0.03

Table A2. PLS Item Factor Loadings and Cross Loadings (Continued)

Construct	Item	ABI	AWARE	BBI	CBI	CogRig	CTRL	EFFCH	EReact	GDExp	GDIntent
EReact	ER1	0.21	0.09	0.18	0.11	0.29	0.28	0.02	0.84	-0.17	-0.14
	ER2	0.25	0.12	0.22	0.21	0.24	0.27	0.00	0.91	-0.14	-0.06
	ER3	0.12	0.05	0.13	0.06	0.12	0.06	-0.03	0.72	-0.07	0.03
GDExp	GDExp	-0.15	-0.12	-0.11	-0.07	-0.05	-0.09	-0.10	-0.16	1.00	0.15
GDIntent	GDInt1	-0.42	0.04	-0.38	-0.34	-0.26	-0.05	-0.08	-0.10	0.15	0.96
	GDInt2	-0.45	0.07	-0.41	-0.34	-0.21	-0.04	-0.07	-0.06	0.14	0.96
GDPEOU	GDPEOU1	-0.33	0.04	-0.25	-0.35	-0.17	-0.10	0.02	-0.07	0.19	0.57
	GDPEOU2	-0.41	0.02	-0.23	-0.31	-0.17	-0.12	0.03	-0.13	0.12	0.54
GDRA	RA1	-0.37	0.10	-0.27	-0.20	-0.18	0.03	-0.10	0.03	0.11	0.68
	RA2	-0.32	0.10	-0.25	-0.20	-0.15	0.02	-0.07	0.03	0.09	0.64
	RA3	-0.31	0.12	-0.30	-0.23	-0.13	0.03	-0.09	0.01	0.07	0.60
PIIT	PIIT1	-0.23	0.03	-0.20	-0.26	-0.21	-0.09	0.02	-0.14	0.17	0.31
	PIIT2	-0.18	0.01	-0.20	-0.22	-0.20	-0.05	0.02	-0.31	0.25	0.26
	PIIT4	-0.17	0.06	-0.19	-0.23	-0.24	-0.07	0.07	-0.24	0.20	0.26
RtSeek	RS1	0.26	0.06	0.09	0.12	0.30	0.21	-0.09	0.52	-0.19	-0.12
	RS3	0.30	0.13	0.17	0.19	0.43	0.20	0.13	0.32	-0.21	-0.21
SE	SE1	-0.30	-0.02	-0.15	-0.15	-0.10	-0.10	0.07	-0.24	0.10	0.26
	SE2	-0.26	-0.01	-0.15	-0.14	-0.07	-0.10	0.08	-0.22	0.06	0.21
	SE3	-0.24	0.02	-0.06	-0.11	-0.15	-0.09	0.11	-0.22	0.05	0.19
SN	GDSF1	-0.19	0.08	-0.19	-0.16	-0.15	0.05	-0.10	-0.07	0.13	0.50
	GDSF3	-0.13	0.04	-0.24	-0.18	-0.10	0.02	-0.13	-0.03	0.16	0.49
	GDSF5	-0.14	0.02	-0.18	-0.12	-0.11	0.01	-0.11	-0.04	0.09	0.38
STFocus	STF3	0.18	0.09	0.04	0.09	0.30	0.14	-0.12	0.41	-0.16	-0.06
	STF4	0.15	0.07	0.06	0.09	0.16	0.15	0.00	0.39	-0.15	-0.09
SunkCost	SnkCost1	0.30	0.08	0.06	0.06	0.10	0.20	-0.04	0.09	-0.01	-0.15
	SnkCost2	0.37	0.10	0.11	0.13	0.16	0.25	0.00	0.09	-0.05	-0.23
TranCost	TrnCost1	0.33	-0.04	0.22	0.33	0.21	0.08	-0.09	0.22	-0.14	-0.45
	TrnCost2	0.29	-0.01	0.20	0.32	0.18	0.06	-0.11	0.18	-0.11	-0.42

Table A2. PLS Item Factor Loadings and Cross Loadings (Continued)										
Construct	Item	GDPEOU	GDRA	PIIT	RtSeek	SE	SN	STFocus	SunkCost	TranCost
ABI	ABI1	-0.40	-0.24	-0.25	0.36	-0.34	-0.11	0.29	0.30	0.42
	ABI3	-0.27	-0.38	-0.11	0.19	-0.12	-0.21	0.02	0.30	0.15
Aware	AWARE2	0.06	0.10	0.05	0.14	0.00	0.06	0.12	0.10	-0.02
	AWARE3	0.04	0.14	0.02	0.10	0.00	0.07	0.07	0.10	-0.03
	AWARE4	0.00	0.08	0.03	0.07	-0.01	0.05	0.05	0.09	-0.02
	AWARE6	0.02	0.13	0.03	0.13	0.00	0.06	0.12	0.07	-0.03
BBI	BBI1	-0.27	-0.29	-0.20	0.14	-0.13	-0.23	0.05	0.11	0.22
	BBI3	-0.24	-0.28	-0.23	0.16	-0.12	-0.22	0.06	0.07	0.21
CBI	CBI1	-0.29	-0.14	-0.23	0.16	-0.11	-0.15	0.10	0.11	0.28
	CBI2	-0.39	-0.30	-0.29	0.20	-0.15	-0.22	0.07	0.11	0.36
	CBI3	-0.33	-0.17	-0.22	0.17	-0.14	-0.14	0.12	0.08	0.33
CogRig	CR1	-0.19	-0.15	-0.23	0.42	-0.10	-0.12	0.25	0.16	0.21
	CR3	-0.15	-0.15	-0.22	0.40	-0.11	-0.15	0.25	0.09	0.18
CTRL	CTRL1	-0.20	-0.03	-0.16	0.24	-0.13	-0.02	0.12	0.21	0.13
	CTRL2	-0.09	0.01	-0.03	0.20	-0.08	0.05	0.14	0.21	0.08
	CTRL5	-0.03	0.10	-0.03	0.22	-0.05	0.08	0.17	0.17	0.01
	CTRL7	-0.08	0.04	-0.05	0.19	-0.09	0.03	0.17	0.23	0.03
EFFCH	EFFCH1	-0.07	-0.12	-0.03	0.04	0.00	-0.13	-0.07	-0.03	-0.03
	EFFCH2	0.06	-0.06	0.08	0.02	0.10	-0.08	-0.07	0.00	-0.10
	EFFCH5	0.10	-0.03	0.06	0.04	0.15	-0.10	-0.01	0.00	-0.15
EReact	ER1	-0.19	-0.04	-0.31	0.44	-0.30	-0.10	0.40	0.14	0.25
	ER2	-0.09	0.05	-0.19	0.46	-0.18	-0.02	0.45	0.06	0.18
	ER3	0.05	0.05	-0.11	0.29	-0.10	-0.03	0.30	0.04	0.09
GDExp	GDExp	0.17	0.10	0.23	-0.24	0.07	0.15	-0.18	-0.03	-0.14
GDIntent	GDInt1	0.57	0.66	0.32	-0.20	0.21	0.52	-0.09	-0.19	-0.44
	GDInt2	0.62	0.70	0.29	-0.19	0.25	0.53	-0.07	-0.20	-0.48
GDPEOU	GDPEOU1	0.90	0.53	0.25	-0.14	0.32	0.37	-0.17	-0.23	-0.60
	GDPEOU2	0.90	0.45	0.28	-0.24	0.44	0.26	-0.12	-0.23	-0.62
GDRA	RA1	0.51	0.92	0.14	-0.09	0.11	0.42	-0.01	-0.22	-0.27
	RA2	0.47	0.90	0.11	-0.10	0.11	0.38	-0.02	-0.20	-0.27
	RA3	0.49	0.87	0.19	-0.10	0.05	0.42	0.02	-0.10	-0.27
PIIT	PIIT1	0.28	0.21	0.89	-0.41	0.38	0.24	-0.22	-0.01	-0.32
	PIIT2	0.20	0.08	0.82	-0.38	0.43	0.25	-0.23	-0.03	-0.40
	PIIT4	0.28	0.13	0.90	-0.45	0.41	0.22	-0.24	-0.04	-0.39
RtSeek	RS1	-0.19	-0.07	-0.30	0.76	-0.23	-0.05	0.49	0.16	0.25
	RS3	-0.16	-0.10	-0.45	0.87	-0.27	-0.11	0.34	0.17	0.26
SE	SE1	0.41	0.12	0.44	-0.31	0.96	0.12	-0.20	-0.18	-0.55
	SE2	0.36	0.06	0.43	-0.28	0.92	0.09	-0.17	-0.16	-0.51
	SE3	0.40	0.10	0.41	-0.28	0.92	0.05	-0.22	-0.20	-0.54
SN	GDSF1	0.32	0.41	0.24	-0.12	0.13	0.90	-0.02	-0.05	-0.29
	GDSF3	0.27	0.38	0.27	-0.10	0.06	0.88	0.05	0.00	-0.25
	GDSF5	0.29	0.34	0.13	0.00	0.02	0.68	0.03	-0.07	-0.15
STFocus	STF3	-0.15	0.01	-0.24	0.43	-0.13	0.02	0.86	0.05	0.18
	STF4	-0.13	-0.01	-0.20	0.41	-0.23	0.02	0.83	0.03	0.15
SunkCost	SnkCost1	-0.17	-0.12	-0.02	0.15	-0.17	-0.02	0.03	0.91	0.19
	SnkCost2	-0.29	-0.23	-0.03	0.22	-0.19	-0.06	0.05	0.95	0.27
TranCost	TranCst1	-0.61	-0.29	-0.42	0.32	-0.56	-0.28	0.20	0.22	0.91
	TranCst2	-0.61	-0.25	-0.33	0.25	-0.48	-0.25	0.16	0.24	0.90

Table A3. Weights for Aggregate and Formative Constructs

Construct	Dimension/Item	Weight
Habit	Summated Scale	1.000***
Inertia	Affective-Based	0.742***
	Behavior-Based	0.076 (n.s.)
	Cognitive-Based	0.334 ***
Propensity to Resist Change	Cognitive Rigidity	0.533 ***
	Emotional Reaction	0.080 (n.s.)
	Routine Seeking	0.554**
	Short-Term Focus	-0.023 (n.s.)
Subjective Norm (first-order formative)	GDSF1 (friends)	0.499***
	GDSF3 (teammates)	0.413***
	GDSF5 (professors)	0.259 *

*p <.05, **p < .01, ***p <.001

Table A4. Inter-Construct Correlations for PLS Model with Second Order Aggregate Constructs

	GDExp	GD Intent	GDPEOU	GDRA	HABIT	INERTIA	I*SN	PIIT	RESIST	SE	SN	Sunk Cost	Tran Cost
GDExp	1.00												
GDIntent	0.15	0.96											
GDPEOU	0.17	0.62	0.90										
GDRA	0.10	0.71	0.55	0.90									
HABIT	-0.14	-0.03	-0.03	0.02	1.00								
INERTIA	-0.14	-0.49	-0.45	-0.38	0.25	n/a							
I*SN	-0.05	0.13	0.01	0.05	-0.03	0.06	1.00						
PIIT	0.23	0.32	0.29	0.16	0.00	-0.28	0.04	0.87					
RESIST	-0.18	-0.26	-0.23	-0.15	0.19	0.36	0.04	-0.43	n/a				
SE	0.07	0.24	0.42	0.10	-0.01	-0.27	0.04	0.46	-0.26	0.93			
SN	0.15	0.55	0.35	0.45	-0.01	-0.22	0.01	0.27	-0.14	0.10	n/a		
SunkCost	-0.03	-0.21	-0.25	-0.20	0.14	0.31	-0.03	-0.03	0.20	-0.20	-0.04	0.93	
TranCost	-0.14	-0.48	-0.68	-0.30	-0.20	0.40	-0.10	=0.41	0.32	-0.57	-0.29	0.25	0.90

Legend: GDExp = Prior Google Docs Experience, GDIntent = Usage Intention (Google Docs), GDPEOU = Perceived Ease of Use (Google Docs), GDRA = Relative Advantage (Google Docs), HABIT = Habit (Email), INERTIA = Inertia, PIIT = Personal Innovativeness with IT, RESIST = Propensity to Resist Change, SE = Self-Efficacy, SN = Subjective Norm (Google Docs), SunkCost = Sunk Costs, TranCost = Transition Costs

Shaded diagonal represents the square root of the AVE.

Table A5. Model Constructs and Measures		
Construct	Item	Item Wording
Habit – Awareness (Polites 2009)	AWARE2	Whenever I need to collaborate / share files with my teammates, I choose to use [EMAIL] without even being aware of (making) the choice.
	AWARE3	Whenever I need to collaborate / share files with my teammates, I unconsciously start using [EMAIL].
	AWARE4	Choosing [EMAIL] when I want to collaborate / share files with my teammates is something I do without being aware.
	AWARE6	Choosing [EMAIL] to collaborate / share files with my teammates is something I do unconsciously.
Habit – Controllability (Polites 2009)	CTRL1	I (would) find it difficult to overrule my impulse to use [EMAIL] to collaborate / share files with my teammates.
	CTRL2	I (would) find it difficult to overcome my tendency to use [EMAIL] to collaborate / share files with my teammates.
	CTRL5	It would be difficult to control my tendency to use [EMAIL] to collaborate / share files with my teammates.
	CTRL7	It is [would be] hard to restrain my urge to use [EMAIL] to collaborate / share files with my teammates.
Habit – Mental Efficiency (Polites 2009)	EFFCH1	I do not need to devote a lot of mental effort to <i>deciding</i> that I will use [EMAIL] to collaborate / share files with my teammates.
	EFFCH2	<i>Selecting</i> [EMAIL] to collaborate / share files with my teammates does not involve much thinking.
	EFFCH5	<i>Choosing</i> [EMAIL] to collaborate / share files with my teammates requires little mental energy.
Indiv Diff – Cognitive Rigidity (Oreg 2003)	CR1	Once I've come to a conclusion, I'm not likely to change my mind.
	CR3	I don't change my mind easily.
	CR4	My views are very consistent over time. <i>[item dropped due to poor loading in LISREL CFA]</i>
Indiv Diff – Emotional Reaction (Oreg 2003)	ER1	If I were to be informed that there's going to be a significant change regarding the way things are done in my classes, I would probably feel stressed.
	ER2	When I am informed of a change of plans, I tense up a bit.
	ER3	When things don't go according to plans, it stresses me out.
Indiv Diff – Routine Seeking (Oreg 2003)	RS1	I generally consider changes to be a negative thing.
	RS3	I like to do the same old things rather than try new and different ones.
	RS4	Whenever my life forms a stable routine, I look for ways to change it. <i>[reverse coded item dropped due to poor loading in LISREL CFA]</i>
Indiv Diff – Short-Term Focus (Oreg 2003)	STF3	When someone pressures me to change something, I tend to resist it even if I think the change may ultimately benefit me.
	STF4	I sometimes find myself avoiding changes that I know will be good for me.
Indiv Diff – PIIT (Agarwal and Prasad 1998)	PIIT1	If I heard about a new information technology, I would look for ways to experiment with it.
	PIIT2	Among my peers, I am usually the first to try out new information technologies.
	PIIT4	I like to experiment with new information technologies.
Inertia – Affective Based (new)		I [will] continue using my existing method for collaborating / sharing files with my teammates...
	ABI1	...because it would be stressful to change.
	ABI2	...because I am comfortable doing so.
	ABI3	...because I enjoy doing so.

Table A5. Model Constructs and Measures (Continued)

Construct	Item	Item Wording
Inertia – Behavioral Based (new)		I [will] continue using my existing method for collaborating / sharing files with my teammates...
	BBI	...simply because it is what I have always done.
	BBI2	...simply because it is part of my normal routine.
	BBI3	...simply because I've done so regularly in the past.
Inertia – Cognitive Based (new)		I [will] continue using my existing method for collaborating / sharing files with my teammates...
	CBI1	...even though I know it is not the best way of doing things.
	CBI2	...even though I know it is not the most efficient way of doing things.
	CBI3	...even though I know it is not the most effective way to do things.
Transition Costs (Moore 2000)	TrnCost1	Learning how to use Google Docs to collaborate / share files with my teammates would not take much time. [reverse coded item]
	TrnCost2	Becoming skillful at using Google Docs to collaborate / share files with teammates would be easy for me. [reverse coded item]
Sunk Costs (Moore 2000)	SnkCost1	I have already invested a lot of time in learning to use my current method for collaborating / sharing files with teammates.
	SnkCost2	I have already invested a lot of time in perfecting my skills at using my current method for collaborating / sharing files with teammates.
Perceived Ease of Use (Karahanna et al. 2006; Venkatesh et al. 2003)	GDPEOU1	I would find Google Docs easy to use for collaborating / sharing files with teammates.
	GDPEOU2	Using Google Docs to collaborate / share files with teammates would be clear and understandable.
Relative Advantage (Karahanna et al. 2006; Venkatesh et al. 2003)	RA1	Using Google Docs to collaborate / share files with my teammates, rather than our current method of collaborating / sharing files, would enhance my group's effectiveness.
	RA2	Using Google Docs to collaborate / share files with my teammates, rather than our current method of collaborating / sharing files, would increase my group's productivity.
	RA3	Using Google Docs to collaborate / share files with my teammates, rather than our current method of collaborating / sharing files, would improve my group's performance.
Subjective Norm (formative) (Venkatesh et al. 2003)	GDSF1	My friends think I should use Google Docs to collaborate / share files with my teammates.
	GDSF3	My teammates think I should use Google Docs to collaborate / share files with them.
	GDSF5	My professors think I should use Google Docs to collaborate / share files with my teammates.
Internal Self-Efficacy (Thatcher et al. 2008)	SE1	I could use Google Docs to collaborate / share files with teammates if there was no one around to tell me what to do.
	SE2	I could use Google Docs to collaborate / share files with teammates if I had never used a system like it before.
	SE3	I could use Google Docs to collaborate / share files with teammates if I had only the online help for reference.
New System Usage Intention (Venkatesh et al. 2003)	GDInt1	I intend to use Google Docs to collaborate / share files with my teammates on my future group projects.
	GDInt2	I plan to use Google Docs to collaborate / share files with my teammates on my future group projects.
Experience with Google Docs	GDExp	Please indicate how much experience, in months, you currently have using Google Docs. (If you have never used Google Docs before, please enter "0.")

Table A6. Total Effects (Listed in Decreasing Order by Size)		
Dependent Variable	Independent Variable	Total Effect
Intention	Relative Advantage	0.40***
	Perceived Ease of Use	0.40***
	Inertia	-0.38***
	Subjective Norm	0.24***
	Self-Efficacy	0.12***
	Inertia × Subjective Norm	0.11***
	Transition Costs	-0.10***
	PIIT	0.10*
	Propensity to Resist Change	-0.10 (n.s.)
	Sunk Costs	-0.07**
	Habit	-0.07***
	GD Experience	0.40 (n.s.)
Relative Advantage	Perceived Ease of Use	0.48***
	Inertia	-0.34***
	Self-Efficacy	0.14***
	Transition Costs	-0.09**
	Sunk Costs	-0.07**
	Habit	-0.06***
	Propensity to Resist Change	-0.06 (n.s.)
	GD Experience	0.05 (n.s.)
PIIT	0.02 (n.s.)	
Perceived Ease of Use	Inertia	-0.35***
	Self-Efficiency	0.30***
	GD Experience	0.10**
	Transition Costs	-0.09**
	Sunk Costs	-0.07**
	Propensity to Resist Change	-0.07 (n.s.)
	Habit	-0.06***
PIIT	0.06 (n.s.)	
Inertia	Transition Costs	0.27***
	Sunk Costs	0.19***
	Habit	0.18***
	Propensity to Resist Change	0.17**
	PIIT	-0.08 (n.s.)
GD Experience	-0.02 (n.s.)	

*p < .05, **p < .01, ***p < .001

Table A7. Sobel Mediation Test Results

Test	Path	Beta	S.E.	Path	Beta	S.E.	T-Stat
H → I → PEOU	H → I	.191	.048	I → PEOU	-.365	.051	-3.48
H → I → RA	H → I	.191	.048	I → RA	-.192	.055	-2.62
H → I → GDInt	H → I	.191	.048	I → GDInt	-.180	.039	-3.01
SC → I → PEOU	SC → I	.183	.049	I → PEOU	-.322	.052	-3.20
SC → I → RA	SC → I	.183	.049	I → RA	-.165	.055	-2.34
SC → I → GDInt	SC → I	.183	.049	I → GDInt	-.173	.039	-2.86
TC → I → PEOU	TC → I	.268	.054	I → PEOU	-.223	.044	-3.55
TC → I → RA	TC → I	.268	.054	I → RA	-.181	.053	-2.81
TC → I → GDInt	TC → I	.268	.054	I → GDInt	-.166	.038	-3.28
I → PEOU → GDInt	I → PEOU	-.348	.050	PEOU → GDInt	.211	.044	-3.95
I → RA → GDInt	I → RA	-.171	.053	RA → GDInt	.406	.042	-3.06
I → SN → GDInt	I → SN	-.223	.054	Sn → GDInt	.224	.037	-2.85

Appendix B

Brief Introduction to Google Docs

Google Docs is a free program that allows you to create and share work online. It includes an online word processor, spreadsheet, and presentation editor. Your project team members can upload existing documents in a number of common formats (including HTML, Microsoft Office, and several more), or you can create and save new documents online. These documents can be exported to your PC at any time. Since all of your documents are stored securely online, they can be accessed and edited from anywhere, using only a web browser. Using Google Docs can help your project team ensure that there is always one single master copy of each of your project documents that each member of the team can access any time. In addition, Google Docs enables real-time collaboration, meaning that all of your group members can log in simultaneously to view and edit documents together in real time, as well as chat with each other. Google Docs is completely free, and requires only a Google email account to get started.

To take a quick tour of Google Docs, or to get more detailed information on the capabilities of Google Docs, please follow the steps below.

- (1) Go to the following website by opening a NEW BROWSER WINDOW: <http://www.google.com/google-d-s/intl/en/tour1.html>.
- (2) Review this website to get additional information on Google Docs and how it may be useful to you for collaborating/sharing files in future group projects. You may scroll up and down the pages, click on any links that you wish, and use any feature on the site. (NOTE: The "Help" link at the bottom of the Google Docs tour page provides a lot of helpful information on features and limitations of the Google Docs application, including the "Top 5 Questions" about Google Docs.)
- (3) After reviewing the site, return to the survey and answer the questions below. (You may find it convenient to leave the Google Docs browser window open until you complete the survey.)

If you are finished with steps (1) and (2) above and are ready to proceed with answering questions (step 3), please click "submit" below.

Appendix c

Testing for Common Method Bias

We used several different methods to alleviate and test for common method bias.

Temporal Separation of Survey Administration

First, we collected data over two time periods, as described in the “Methodology” section of the paper (under “Procedure”). Items related to incumbent system habit and individual difference variables were administered two weeks prior to administration of items related to perceptions of the new system. Temporal separation of survey administration reduces common method bias concerns (see Podsakoff et al. 2003).

Marker Variable Technique

Next, we examined the matrix of item-to-item correlations. The lowest correlation between pairs of items in a given dataset can be viewed as the upper limit to how much method bias can be present in the data (Lindell and Whitney 2001; Malhotra et al. 2006). There were a large number (473) of nonsignificant item-to-item correlations in the dataset, including 59 nonsignificant correlations associated with items from constructs hypothesized to be either positively or negatively correlated, as well as 44 statistically significant correlations between 0.09 and 0.10 in our sample. This indicates the absence of widespread method bias.

CFA with Method Construct

Finally, we ran a CFA in LISREL that included a method construct. This allowed not only comparison of the loadings of each item on its own factor and the method factor, but it also allowed calculation of the amount of method bias present in the entire dataset, using the technique described by Podsakoff et al. (2003) and Malhotra et al. (2006). The estimated amount of method bias present in the dataset was only 1.2 percent. Further, all factor loadings remained significant in the presence of the method factor. As such, common method bias does not appear to be a significant threat to the validity of the results.

The Podsakoff et al. (2003) Method in PLS

Liang et al. (2007) have suggested that the Podsakoff et al. method of assessing common method bias can be carried out in PLS. We conducted this test and obtained an estimate of method bias similar to that obtained from the CFA method above.

Each of the approaches above has limitations (see Podsakoff et al. 2003; Richardson et al. 2009; Sharma et al. 2009; Straub and Burton-Jones 2007). Thus, it is still possible that some method bias may exist. We therefore recommend that future research test the theoretical model via different methods to determine the extent to which it is immune to such biases.

Appendix D

Comparison of Alternative Models

Relationship	Reported Model (Habit as Summed Score)	Reported Model (Habit as Three Dimensions)	Inertia as a Moderator of PEOU-Intention and RA-Intention	SN as a Mediator of the Inertia-Intention Relationship	Final Model (Both Mediated and Moderated Effects for SN)
Core Model					
GDPEOU → GDIntent	0.21***	0.21***	0.23***	0.21***	0.21***
GDPEOU → GDRA	0.48***	0.48***	0.54***	0.48***	0.48***
GDRA → GDIntent	0.40***	0.40***	0.39***	0.41***	0.41***
HABIT → INERTIA	0.19***	0.21***	0.19***	0.19***	0.19***
INERTIA → GDIntent	-0.17***	-0.17***	-0.17***	-0.16***	-0.17***
INERTIA → GDPEOU	-0.35***	-0.35***		-0.34***	-0.34***
INERTIA → GDRA	-0.17**	-0.17*		-0.17**	-0.18**
INERTIA → SN				-0.23***	-0.24***
I × PEOU → GDIntent			-0.05		
I × RA → GDIntent			0.06		
I × SN → GDIntent	0.11***	0.11***	0.11***		0.11***
SN → GDIntent	0.24***	0.24***	0.23***	0.23***	0.23***
SunkCost → INERTIA	0.19**	0.17**	0.18**	0.18***	0.17**
TranCost → INERTIA	0.27***	0.26***	0.27***	0.26***	0.27***
Controls					
GDExp → GDIntent	-0.00	-0.00	-0.01	-0.01	-0.00
GDExp → GDPEOU	0.09**	0.09**	0.11***	0.09**	0.09**
GDExp → GDRA	0.00	0.00	0.01	0.00	0.00
GDExp → INERTIA	-0.02	-0.04	-0.03	-0.03	-0.02
PIIT → GDIntent	0.06	0.07*	0.07	0.07*	0.07
PIIT → GDPEOU	0.04	0.04	0.06	0.03	0.03
PIIT → GDRA	-0.03	-0.02	-0.01	-0.02	-0.02
PIIT → INERTIA	-0.08	-0.07	-0.08	-0.09	-0.09
RESIST → GDIntent	-0.03	-0.03	-0.04	-0.02	-0.02
RESIST → GDPEOU	-0.00	-0.00	-0.11	-0.01	-0.01
RESIST → GDRA	-0.00	0.00	-0.04	0.00	0.00
RESIST → INERTIA	0.17**	0.16**	0.18**	0.17**	0.17**
SE → GDIntent	-0.00	-0.00	-0.00	0.00	-0.00
SE → GDPEOU	0.30***	0.30***	0.36***	0.30***	0.30***
R²					
GDIntent	0.67	0.67	0.68	0.66	0.67
GDPEOU	0.31	0.31	0.21	0.31	0.31
GDRA	0.32	0.32	0.30	0.32	0.32
SN				0.05	0.05
INERTIA	0.30	0.30	0.29	0.29	0.29

*p < .05, **p < .01, ***p < .001

Legend: GDExp = Prior Google Docs Experience, GDIntent = Usage Intention (Google Docs), GDPEOU = Perceived Ease of Use (Google Docs), GDRA = Relative Advantage (Google Docs), HABIT = Habit (Email), INERTIA = Inertia, I × GDPEOU = Inertia × Perceived Ease of Use Interaction, I × GDRA = Inertia × Relative Advantage Interaction, I × SN = Inertia × Subjective Norm Interaction, PIIT = Personal Innovativeness with IT, RESIST = Propensity to Resist Change, SE = Self-Efficacy, SN = Subjective Norm (Google Docs), SunkCost = Sunk Costs, TranCost = Transition Costs.

Appendix E

Partial Derivative Analysis

Since $\text{Intention} = \beta_1 \text{Inertia} + \beta_2 \text{SN} + \beta_3 \text{RA} + \beta_4 \text{PEOU} + \beta_5 (\text{Inertia} * \text{SN})$, then $C_{\text{SN}} = (\beta_2 + \beta_5 \text{Inertia})$ shows the relationship between SN and new system intention holding Inertia, RA, and PEOU constant and represents the partial derivative of Intention with respect to SN ($\partial I / \partial \text{SN} = \beta_2 + \beta_5 \text{Inertia}$). Similarly, $C_{\text{Inertia}} = (\beta_1 + \beta_5 \text{SN})$ shows the relationship between Inertia and Intention holding SN, RA, and PEOU constant and represents the partial derivative of Intention with respect to Inertia ($\partial I / \partial \text{Inertia} = \beta_1 + \beta_5 \text{SN}$) (for a description of the procedure, see Ping 2003; Titah and Barki 2009).

The factored coefficients from each of the two partial derivatives indicate the slope of the regression line between new system intention with SN (Table E1) and with Inertia (Table E2) respectively, while holding the other independent variables constant. In other words, the factored coefficient of SN shows the relationship between SN and new system intention while holding inertia, RA, and PEOU constant.

Table E1. SN to New System Intention Relationship at Different Levels of Inertia

Inertia Levels (Scale 1-7)	Partial Derivative of Intention to Use New System with Respect to SN	Standard Error	T-Statistic
7	0.61	0.21	2.85
6	0.50	0.18	2.71
5	0.39	0.16	2.51
4	0.28	0.13	2.21
3.64 (Mean of Inertia)	0.24	0.12	2.06
3	0.17	0.10	1.72
2	0.06	0.07	0.83
1	-0.05	0.05	-1.00

Table E2. Inertia to New System Intention Relationship at Different Levels of SN

SN Levels (Scale 1-7)	Partial Derivative of Intention to Use New System with Respect to Inertia	Standard Error	T-Statistic
7	0.11	0.22	0.52
6	0.00	0.19	0.01
5	-0.11	0.16	-0.68
4.43 (Mean of SN)	-0.17	0.14	-1.21
4	-0.22	0.13	-1.69
3	-0.33	0.10	-3.25
2	-0.44	0.07	-5.90
1	-0.55	0.05	-10.64

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