

**Appendix A**  
**Measurement Items**

<b>Informational Justice</b> (Ball et al. 1994)
If I'm punished for not following the ERP operating standard, 1. ... I will be told clearly what should be done 2. ... I will get adequate explanation about why I'm punished 3. ... constructive feedback will be provided to me
<b>Procedural Justice</b> (Ball et al. 1994)
If I'm punished for not following the ERP operating standard, 1. ... I have input into the determination of the final disciplinary outcome 2. ... I have a great deal of control in determining the final disciplinary outcome 3. ... my supervisor will carefully consider my side of the story before deciding on the discipline
<b>Distributive Justice</b> (Ball et al. 1994)
1. Any employee who doesn't comply with the ERP operating standard will be equally punished 2. The punishment imposed on an employee will not be more harsh than that imposed on any other employee who made the same mistake in using ERP 3. I feel the discipline for violating ERP operating standard is too harsh
<b>Punishment expectancy</b> (Weaver et al. 1999)
1. Employees violating expectations of ERP operations would be disciplined. 2. Employees failing to abide by ERP policies would be disciplined. 3. People not conforming to the ERP operating standard would be disciplined. 4. Even minor violations of ERP operating standard would get an employee disciplined
<b>Perceived usefulness</b> (Venkatesh 2000)
1. Using ERP improves my performance in my job 2. Using ERP in my job increases my productivity 3. Using ERP enhances my effectiveness in my job 4. I find ERP to be useful in my job
<b>Perceived ease of use</b> (Venkatesh 2000)
1. My interaction with ERP is clear and understandable 2. Interacting with ERP does not require a lot of my mental effort 3. I find ERP to be easy to use 4. I find it easy to get ERP to do what I want it to do
<b>Satisfaction</b> (Bhattacharjee 2001)
I am _____ with my use of ERP 1. (1)Extremely displeased ... Extremely pleased(7) 2. (1)Extremely frustrated ... Extremely contented(7) 3. (1)Extremely terrible ... Extremely delighted(7) 4. (1)Extremely dissatisfied ... Extremely satisfied(7)
<b>Compliance Intention</b> (Bhattacharjee 2001)
1. I intend to comply with the ERP operating standard of my company 2. My intentions are to comply with the ERP operating standard of my company 3. If I could, I would not like to comply with the ERP operating standard of my company

**Appendix B**  
**Factor loadings**

Construct	Item	Mean	Std. Dev.	Loading <sup>a</sup>
Actual Punishment	# of fines	0.36	1.30	0.99
	Total of fines (¥)	16.70	65.81	0.99
Punishment Expectancy	1	5.53	1.39	0.93
	2	5.50	1.31	0.97
	3	5.40	1.30	0.95
	4	5.13	1.48	0.84
Perceived Usefulness	1	5.25	1.24	0.74
	2	5.72	1.08	0.89
	3	5.77	1.13	0.88
	4	5.98	0.92	0.79
Informational Justice	1	5.14	1.42	0.93
	2	4.94	1.46	0.94
	3	4.86	1.42	0.95
Procedural Justice	1	3.95	1.48	0.88
	2	3.87	1.57	0.93
	3	4.31	1.67	0.80
Distributive Justice	1	5.23	1.57	0.82
	2	5.30	1.43	0.83
	3	2.58	1.60	-0.85
Satisfaction	1	5.18	1.21	0.94
	2	5.19	1.14	0.94
	3	5.20	1.14	0.96
	4	5.18	1.16	0.95
Compliance Intention	1	5.91	1.21	0.93
	2	5.98	1.11	0.92
	3	2.31	1.54	-0.80
Perceived Ease of Use	1	4.66	1.36	0.87
	2	4.75	1.25	0.87
	3	4.39	1.30	0.91
	4	4.64	1.17	0.84

Note: <sup>a</sup> All factor loadings are significant ( $p < 0.01$ ).

## Appendix C Common Method Variance Test

Three tests were utilized to evaluate the extent to which common method variance (CMV) affected our data analysis. First, Harman's one-factor test was performed by conducting an exploratory factor analysis and inspecting the unrotated factor solution (Podsakoff et al. 2003; Podsakoff and Organ 1986). Large common method variance is present when a single factor emerges or one general factor accounts for most of the covariance among the measures. As nine factors emerged and the largest covariance explained by a factor was 29.8%, the test did not yield evidence of common method bias.

Second, we performed a partial correlation test using a marker variable to partial out the influence of common method variance (Lindell and Whitney 2001). The second smallest positive correlation among measurement items ( $r_m = 0.02$ ) was used as a reasonable proxy for common method variance (Table 1). The correlation between any two principal constructs ( $r_u$ ) was adjusted by partialling out  $r_m$ . The adjusted correlation ( $r_a$ ) and its t-statistic were calculated as follows:

$$r_a = \frac{r_u - r_m}{1 - r_m}$$
$$t_{\alpha/2, n-3} = \frac{r_a}{\sqrt{(1 - r_a^2)/(n - 3)}}$$

After controlling for common method variance, the adjusted correlations between the principal constructs were only slightly lower than the unadjusted correlations and their significance levels did not change, suggesting that common method variance did not spuriously inflate the construct relationships (Lindell and Whitney 2001). Therefore, common method bias does not seem to be a serious concern for this study. A recent study (Malhotra et al. 2006) also finds that common method variance does not significantly affect IS studies involving survey data collected from single sources.

Finally, following Liang et al. (2007), we performed a common method factor test using PLS. Each construct was converted to a second-order construct and each of its indicators was converted to a single-indicator construct. A common method factor was created using indicators from all the constructs. Each single-indicator construct was modeled to be determined by (1) its second-order construct and (2) the method factor. The two squared path weights represent variance explained by the substantive construct and common method, respectively. The results indicate that the path weight between perceived usefulness and its second item is greater than 1, which suggests that the item is problematic. After that item was removed, we performed the common factor test again. As Table 2 shows, each indicator's variance explained by its substantive construct is much greater than that explained by the common method factor, which suggests that common method bias is unlikely to be serious.

To assess how the second item of perceived usefulness has influenced our data analysis, we excluded it and retested the full research model. The results show that our major findings remain roughly unchanged. The effect of perceived justice of punishment slightly decreased from 0.42 to 0.40 ( $p < 0.01$ ) and punishment expectancy remain insignificant. Although the effect of perceived usefulness increased from 0.11 to 0.17, it is still insignificant. In contrast, satisfaction's effect decreased from 0.20 to 0.17 and it became insignificant. Thus, the new results show that perceived justice of punishment is the only significant

determinant of compliance intention. Although this finding could help us make a stronger argument about the contribution of this research, we only it to show that CMV does not negatively affect our data analysis since the other two CMV tests did not find the second item of perceived usefulness problematic.

In summary, all three tests suggest that CMV is unlikely to introduce biases and thus not a serious concern for our data analysis.

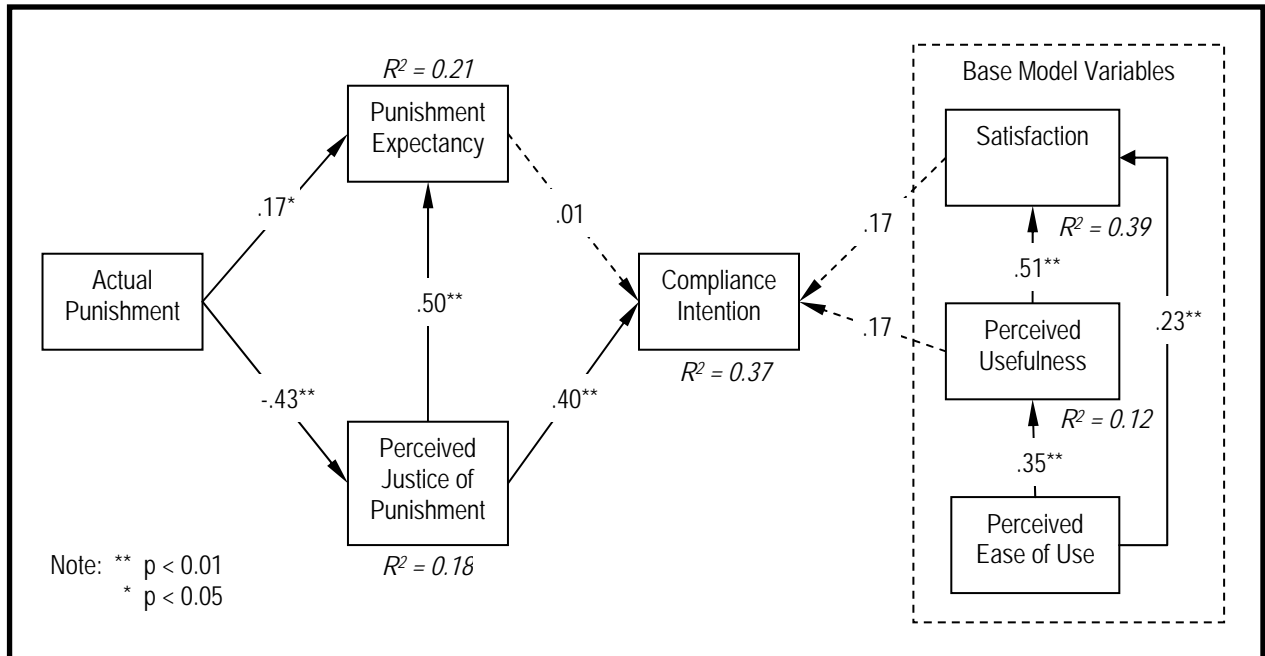


Figure 1. Model testing with the second item of perceived usefulness excluded

Table 1. Correlations among Measurement Items

	S1	S2	S3	S4	CI1	CI2	CI3	PU1	PU2	PU3	PU4	EU1	EU2	EU3	EU4	IJ1	IJ2	IJ3	PJ1	PJ2	PJ3	DJ1	DJ2	DJ3	PE1	PE2	PE3	
S1	1																											
S2	.875**	1																										
S3	.844**	.888**	1																									
S4	.855**	.835**	.926**	1																								
CI1	.398**	.386**	.420**	.385**	1																							
CI2	.365**	.347**	.376**	.355**	.868**	1																						
CI3	-.218*	-.233*	-.232*	-.233*	-.592**	-.572**	1																					
PU1	.399**	.349**	.481**	.398**	.430**	.409**	-.348**	1																				
PU2	.419**	.377**	.459**	.471**	.204*	.268**	-.179	.504**	1																			
PU3	.487**	.413**	.490**	.515**	.204*	.270**	-.180	.466**	.897**	1																		
PU4	.461**	.466**	.475**	.473**	.374**	.417**	-.357**	.393**	.605**	.587**	1																	
EU1	.349**	.355**	.349**	.358**	.100	.109	-.002	.230*	.151	.244**	.261**	1																
EU2	.333**	.385**	.449**	.389**	.160	.188*	-.066	.405**	.164	.286**	.291**	.733**	1															
EU3	.239**	.315**	.283**	.278**	.193*	.219*	-.126	.301**	-.013	.085	.148	.716**	.676**	1														
EU4	.305**	.351**	.306**	.305**	.145	.166	.021	.153	.054	.162	.270**	.735**	.624**	.690**	1													
IJ1	.319**	.200*	.279**	.245**	.263**	.312**	-.378**	.438**	.352**	.342**	.322**	.203*	.174	.212*	.155	1												
IJ2	.300**	.248**	.321**	.288**	.326**	.368**	-.382**	.410**	.309**	.318**	.353**	.162	.197*	.220*	.057	.788**	1											
IJ3	.275**	.170	.231*	.245**	.217*	.292**	-.375**	.329**	.315**	.300**	.259**	.143	.120	.222*	.066	.829**	.858**	1										
PJ1	.138	.213*	.173	.149	.074	.062	-.064	-.109	-.036	.080	-.007	.267**	.228*	.295**	.318**	.178	.195*	.188*	1									
PJ2	.089	.147	.144	.116	.053	.058	.024	-.072	-.128	-.017	-.019	.284**	.249**	.282**	.281**	.182*	.205*	.192*	.777**	1								
PJ3	.053	.122	.142	.046	.121	.165	-.095	.090	-.074	-.030	-.058	.221*	.270**	.283**	.194*	.343**	.382**	.407**	.504**	.624**	1							
DJ1	.326**	.302**	.343**	.316**	.433**	.376**	-.399**	.421**	.251**	.330**	.162	.101	.142	.204*	-.001	.502**	.524**	.586**	.145	.190*	.372**	1						
DJ2	.339**	.369**	.440**	.364**	.184*	.159	-.097	.160	.237**	.338**	.346**	.188*	.298**	.126	.156	.244**	.330**	.278**	.112	.059	.111	.510**	1					
DJ3	-.141	-.117	-.195	-.144	-.235*	-.307**	.242*	-.242*	-.085	-.148	-.122	.024	-.020	-.138	.076	-.365**	-.318**	-.398**	-.005	-.120	-.112	-.581**	-.544**	1				
PE1	.233*	.244**	.261**	.254**	.192*	.249**	-.344**	.349**	.480**	.479**	.418**	.054	.104	-.029	.040	.264**	.233*	.234*	-.165	-.224*	-.116	.203*	.182*	.292**	1			
PE2	.293**	.263**	.327**	.329**	.267**	.311**	-.383**	.406**	.438**	.453**	.444**	.096	.148	.020	.047	.315**	.300**	.283**	-.158	-.202*	-.088	.289**	.311**	.419**	.864**	1		
PE3	.271**	.291**	.299**	.294**	.227*	.261**	-.359**	.326**	.399**	.432**	.441**	.111	.145	.039	.085	.290**	.315**	.279**	-.101	-.148	-.106	.292**	.299**	.417**	.849**	.933**	1	
PE4	.197*	.138	.172	.161	.160	.214*	-.205*	.286**	.311**	.350**	.338**	.068	.100	-.026	.100	.252**	.185*	.155	-.098	-.114	-.061	.131	.187*	.341**	.753**	.753**	.695**	1

Note: \* significant at  $p < 0.05$ ; \*\* significant at  $p < 0.01$ . S – satisfaction; CI – compliance intention; PU – perceived usefulness; EU – perceived ease of use; IJ – informational justice; PJ – procedural justice; DJ – distributive justice; PE – punishment expectancy.

Table 2. Common method factor test results

Construct	Indicator	Substantive factor loading	R1 <sup>2</sup>	Method factor loading	R2 <sup>2</sup>
Distributive justice	1	.754	.569	.105	.011
	2	.862	.743	-.051	.003
	3	.886	.785	-.052	.003
Informational justice	1	.910	.828	.026	.001
	2	.912	.832	.040	.002
	3	.996	.992	-.065	.004
Procedural justice	1	.883	.780	-.010	.000
	2	.940	.884	-.052	.003
	3	.784	.615	.071	.005
Punishment expectancy	1	.962	.925	-.040	.002
	2	.918	.843	.071	.005
	3	.908	.824	.056	.003
	4	.918	.843	-.098	.010
Compliance intention	1	.953	.908	-.027	.001
	2	.919	.845	.015	.000
	3	-.783	.613	-.014	.000
Satisfaction	1	.942	.887	.003	.000
	2	.990	.980	-.056	.003
	3	.917	.841	.059	.003
	4	.954	.910	-.002	.000
Perceived usefulness	1	.642	.412	.134	.018
	3	.945	.893	-.113	.013
	4	.828	.686	-.006	.000
Perceived ease of use	1	.916	.839	-.015	.000
	2	.810	.656	.103	.011
	3	.888	.789	-.023	.001
	4	.900	.810	-.066	.004

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