

Online Supplements

A. Construct Reliability and Validity

The measurement model was assessed through their reliability, convergent validity, and discriminant validity. Reliability is assessed using composite reliability and average variance extracted (AVE) with threshold values of 0.7 and 0.5 respectively (Fornell and Larcker 1981). As shown in Table A, all constructs are of good reliability and pass the AVE minimums. Convergent and discriminant validity can be assessed by confirmatory factor analysis (CFA), as shown in Table A. Convergent validity was assessed by checking the loadings to see if the items within the same construct are highly correlated. Loadings of all the items in their respective latent constructs are higher than 0.707, showing good convergent validity, except IKS4 which was then excluded from subsequent analyses (Comrey 1973). Discriminant validity was assessed by checking whether all the item loadings on the intended construct are higher than the loadings on other constructs. Our results indicate good discriminant validity.

Table A. Loadings and Cross Loadings

Construct	CR	AVE	Items	JP	IA	IKS	MU	CD	ND	RD
Joint Performance	0.93	0.82	JP1	0.89	0.43	0.50	-0.02	-0.26	-0.25	-0.23
			JP2	0.91	0.29	0.37	0.12	-0.18	-0.11	-0.09
			JP3	0.92	0.34	0.44	0.02	-0.13	-0.12	-0.13
IOS Adaptability	0.88	0.70	IA1	0.37	0.75	0.41	0.02	-0.39	-0.40	-0.20
			IA2	0.28	0.88	0.49	0.02	-0.27	-0.30	-0.26
			IA3	0.35	0.88	0.57	-0.19	-0.33	-0.43	-0.24
IOS-enabled Knowledge Sharing	0.86	0.67	IKS1	0.43	0.55	0.80	-0.08	-0.28	-0.25	-0.14
			IKS2	0.38	0.39	0.78	-0.24	-0.27	-0.37	-0.19
			IKS3	0.38	0.50	0.88	-0.15	-0.33	-0.38	-0.21
			IKS4	0.37	0.17	0.59	0.04	-0.16	-0.12	-0.07
Market Uncertainty	0.93	0.78	MU1	0.04	-0.11	-0.12	0.82	0.04	0.18	0.22
			MU2	0.02	-0.08	-0.17	0.87	0.11	0.24	0.21
			MU3	0.06	-0.02	-0.16	0.92	0.05	0.18	0.19
			MU4	0.02	-0.07	-0.20	0.92	0.03	0.27	0.15
Cognitive Distance	0.92	0.79	CD1	-0.17	-0.38	-0.30	0.09	0.88	0.65	0.53
			CD2	-0.25	-0.41	-0.37	0.01	0.95	0.61	0.49
			CD3	-0.11	-0.21	-0.25	0.10	0.82	0.51	0.46
Normative Distance	0.89	0.66	ND1	-0.08	-0.25	-0.16	0.09	0.63	0.70	0.56
			ND2	-0.12	-0.41	-0.37	0.19	0.46	0.84	0.39
			ND3	-0.09	-0.33	-0.33	0.28	0.51	0.86	0.33
			ND4	-0.25	-0.43	-0.38	0.20	0.63	0.85	0.41
Regulative Distance	0.79	0.79	RD1	-0.18	-0.20	-0.20	0.15	0.43	0.35	0.91
			RD2	-0.12	-0.31	-0.19	0.24	0.57	0.53	0.87

B. Common Method Variance

We measured the data for exogenous variables from the buyer side, while collecting data for the endogenous variables from both sides; we then aggregated the dyadic data. This method effectively mitigated concerns about common method variance (CMV) because the exogenous and endogenous variables were not derived from the same respondent (Chang, Witteloostuijin, and Eden 2010) and were, thus, independent (Podsakoff et al. 2003). But, as suggested by Podsakoff et al. (2003), CMV may also arise from other sources, including mono-method and some contextual influences. To assess the likely extent of CMV, we re-estimated our structural model after allowing a method factor to load freely onto all indicators, following the estimation procedure described by Podsakoff et al. (2003). We found that the structural model estimates for our hypothesized effects remained virtually unchanged after we introduced the method factor. Furthermore, all item loadings on the common method factor were insignificant ($t < 1.96$). Finally, the proportion of variance in each observed indicator (computed as the square of the item loadings) explained by its focal construct (77.5% on average) substantially exceeded the variance explained by the method factor (0.2% on average). Collectively, this analysis suggests that method variance does not materially affect our conclusions (Chang et al. 2010).

C. OLS Regression Test

We also tested the research model using OLS regression. As shown in Table C, the results are overall quite consistent with the PLS results reported in the main text, thus demonstrating the robustness of our findings.

Table C - OLS Analysis Results

Variables	IOS-enabled Knowledge Sharing			Joint Performance		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Control Variables						
Market Uncertainty	-0.18*	-0.15	-0.14	-0.00	0.12	0.12
Supplier Firm Size	0.22*	0.10	0.09	0.07	-0.04	-0.03
Buyer Firm Size	-0.05	-0.04	-0.01	0.21*	0.25**	0.23**
Relationship Length	-0.01	-0.05	-0.03	0.13	0.14 ⁺	0.13 ⁺
Industry 1 (furniture)	0.18	0.20*	0.23*	0.21 ⁺	0.13	0.09
Industry 2 (home appliance)	0.04	0.10	0.12	0.21*	0.20*	0.17 ⁺
Industry 3 (automotive)	0.05	0.08	0.10	0.20 ⁺	0.18 ⁺	0.12
Location distance	-0.08	-0.03	-0.05	-0.08	-0.03	-0.02
IOS size	0.02	0.10	0.13	0.06	0.05	0.03
IOS Use Frequency	-0.24*	-0.10	-0.10	-0.09	0.04	0.06
IOS Type 1 (sales & marketing)	0.17	0.13	0.18	-0.03	-0.10	-0.14
IOS Type 2 (order & inventory)	0.05	0.05	0.02	-0.04	-0.06	-0.03
IOS Type 3 (finance)	-0.02	-0.06	-0.09	-0.06	-0.07	-0.08
IOS Type 4 (others)	0.12	0.00	-0.02	0.06	-0.02	-0.01
Independent Variables						
Adaptive IOS	--	0.51***	0.49***	--	--	--
IOS-Enabled Knowledge Sharing (KS)	--	--	--	--	0.49*	0.54***
Normative Distance	--	-0.04	-0.03	--	-0.04	-0.09
Cognitive Distance	--	-0.16 ⁺	-0.18*	--	0.04	0.05
Regulative Distance	--	0.07	0.06	--	-0.12	-0.09
Interaction Effects						
Adaptive IOS × Normative Distance	--	--	-0.07	--	--	--
Adaptive IOS × Cognitive Distance	--	--	0.21*	--	--	--
Adaptive IOS × Regulative Distance	--	--	-0.11	--	--	--
KS × Normative Distance	--	--	--	--	--	-0.05
KS × Cognitive Distance	--	--	--	--	--	-0.19*
KS × Regulative Distance	--	--	--	--	--	0.07
R ²	.12	.43	.45	.15	.39	.42
ΔR ²		.31	.02		.25	.03

Note: * $p < .05$, ** $p < .01$, *** $p < .001$, + $p < .10$; one-tailed test for the hypothesized effects.

D. Endogeneity test

To examine the possibility that IOS adaptability is endogenously determined, we conduct the standard Durbin-Wu-Hausman method to test whether endogeneity is an issue in our context (Davidson and MacKinnon 1993). Specifically, we compute the residual, η , from Equation 1 (estimated from Table D1).

Equation 1: IOS Adaptability = $\beta_0 + \beta_1 * \text{Market Uncertainty} + \beta_2 * \text{Supplier Firm Size} + \beta_3 * \text{Buyer Firm Size} + \beta_4 * \text{Relationship Length} + \beta_5 * \text{Industry 1} + \beta_6 * \text{Industry 2} + \beta_7 * \text{Industry 3} + \beta_8 * \text{Industry 3} + \beta_9 * \text{IOS Size} + \beta_{10} * \text{IOS Use Frequency} + \beta_{11} * \text{IOS Type 1} + \beta_{12} * \text{IOS Type 2} + \beta_{13} * \text{IOS Type 3} + \beta_{14} * \text{IOS Type 4} + \beta_{15} * \text{Normative Distance} + \beta_{16} * \text{Cognitive Distance} + \beta_{17} * \text{Regulative Distance} + \eta$

Equation 1 includes the factors that may drive IOS adaptability in the sense that they create the need to make IOS adaptable or provide the resources to fulfil this need. In varying market, industry, and interorganizational relationship contexts, channel partners may have different demand for IOS adaptability. Specifically, in a more dynamic market, channel partners may have a greater need to make IOS adaptive to rapid changes (Neumann and Star 1996). The differences between buyer and supplier's institutional contexts can create the need to build adaptive IOS that accommodates their incompatibilities (Carlile 2004). Some industry features may also require different level of IOS adaptability. Thus, we regress IOS adaptability on market uncertainty, industry, and the three aspects of institutional distance. We also include the variables that indicate firm/IOS resources and capabilities. Specifically, firm size as a commonly used proxy can imply the resources that firms possess to invest in adaptive IOS. Relationship length may affect IOS adaptability in the sense that as the exchange relationship continues, the partners can develop more mutual understanding and coordination, hence more capable in building and utilizing adaptive IOS. IOS adaptability may also be related to the IOS characteristics including its size, use frequency and type (Chi et al. 2007).

Table D1. OLS of IOS Adaptability

<i>Variables</i>	IOS Adaptability
Market Uncertainty	.05
Supplier Firm Size	.10
Buyer Firm Size	.01
Relationship Length	.10
Industry 1 (furniture)	.13
Industry 2 (home appliance)	-.00
Industry 3 (automotive)	.18
IOS size	-.18 ⁺
IOS Use Frequency	-.25 [*]
IOS Type 1 (sales & marketing)	.02
IOS Type 2 (order & inventory)	.02
IOS Type 3 (finance)	.21 [*]
IOS Type 4 (others)	.09
Normative Distance	-.36 ^{**}
Cognitive Distance	-.16
Regulative Distance	.00
R ²	.30

We used η as an additional regressor in the equation of IOS-enabled Knowledge Sharing and reran the research model. The results are reported in Table D2. The parameter estimate for the residual was insignificant, indicating that IOS Adaptability is exogenous in our setting.

Table D2. PLS Analysis Results with Residual Included

Variables	IOS-enabled Knowledge Sharing	Joint Performance
Control Variables		
Market Uncertainty	-.14**	.04
Supplier Firm Size	.05	.01
Buyer Firm Size	.03	.22***
Relationship Length	.01	.12*
Industry 1 (furniture)	.25**	.23**
Industry 2 (home appliance)	.08**	.25***
Industry 3 (automotive)	.14	.24*
Location distance	-.02	-.03
IOS size	.06	.03
IOS Use Frequency	-.04	-.10
IOS Type 1 (sales & marketing)	-.04	-.06
IOS Type 2 (order & inventory)	.03	.02
IOS Type 3 (finance)	.04	.01
IOS Type 4 (others)	-.01	.01
$\hat{\eta}$.01	.01
Independent Variables		
Adaptive IOS	.46**	--
IOS-Enabled Knowledge Sharing	--	.50***
Normative Distance	-.02	-.09
Cognitive Distance	-.20**	-.05
Regulative Distance	.02	-.09
R^2	.43	.42

Note: * $p < .05$, ** $p < .01$, *** $p < .001$, + $p < .10$ (one-tailed test for hypothesized effects).

References

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