

Antecedents of IS Strategic Alignment: A Nomological Network Online Supplement

Table 1: Shared Understanding/Shared Knowledge Definitions from Prior Literature¹

Study	Methodology	Concept	Definition
Lind and Zmud 1991	Survey	Shared Understanding	<u>Convergence</u> : The degree of mutual understanding between technology providers and other business personnel about the firm's business activities and the importance of the technology importance of technology in supporting those activities
Boynton, Zmud, et al. 1994	Survey	Shared Knowledge/ Understanding	<u>Managerial IT Knowledge</u> : An intertwined and dynamic pool of knowledge represented by the conjunction of IT-related and business-related knowledge possessed by and exchanged among IT managers and business unit or line managers.
Nelson and Coopridge 1996	Survey	Shared Knowledge / Understanding	<u>Shared Knowledge</u> : The level of understanding and appreciation among IS and line managers for the technologies and processes that affect their mutual performance.
Reich and Benbasat 1996	Multiple Case Studies	Shared Understanding	<u>Social Dimension of Alignment</u> : The level of mutual understanding of and commitment to the business and IT mission, objectives, and plans by IS and business executives. Specifically, IS executives understand and are committed to the business mission, objectives, and plans; and business executives understand and are committed to the IT mission, objectives, and plans.
Armstrong and Sambamurthy 1999	Survey	Shared Knowledge	<u>Senior Leadership Knowledge</u> : The strategic IT-related knowledge and business knowledge held by the organization's senior IS and business executives.
Reich and Benbasat 2000	Multiple Case Studies	Shared Knowledge	<u>Shared Domain Knowledge</u> : The ability of IT and business executives, at a deep level, to understand and be able to participate in the other's key processes and to respect each other's unique contribution and challenges.
Reich and Benbasat 2000	Multiple Case Studies	Shared Understanding	<u>Short-Term Social Dimension of Alignment</u> : The state in which business and IT executives understand and are committed to each other's short term plans and objectives
Reich and Benbasat 2000	Multiple Case Studies	Shared Vision	<u>Long-Term Social Dimension of Alignment</u> : The state in which business and IT executives share a common vision of the ways in which IT will contribute to the success of the business unit.
Johnson and Lederer 2005	Survey	Mutual Understanding	<u>CEO/CIO Convergence on the Role of IT</u> : The degree of mutual understanding between an organization's CEO and CIO about the role of IT.
Chan, Sabherwal, et al. 2006	Survey	Shared Knowledge	<u>Shared Domain Knowledge</u> : How informed IS managers are on the organization's long-term plans and how informed top management is on information technology.
Preston, Karahanna. et al. 2006	Survey	Shared Understanding	<u>Shared Understanding</u> : Shared understanding between the CIO and TMT regarding the role of IT within the organization
Tan and Gallupe (2006)	Cognitive Mapping	Shared Understanding	<u>Shared Understanding</u> : A shared cognition between IS executives and business executives

¹ In terms of the shared understanding studies in the table, IS strategic alignment was the dependent variable only in Preston et al (2006) and Tan and Gallupe (2006). Reich and Benbasat (1996, 2000) developed shared understanding/shared vision (as the dependent variable) to measure the social dimension of IS strategic alignment.

Table 2: Characteristics of the CIO/TMT Respondents and Organizations

CIO / TMT Characteristics	CIO Mean or %	TMT - Mean or %
Age	48.66	51.12
Organizational Tenure	7.48	11.03
Gender	80.6% male	78.7% male
Top Management Team Member	63.3%	100%
<u>Reporting Level to CEO</u>		All TMT respondents are either the CEO or directly report to the CEO
0 (Direct Report)	107 (45.2%)	
1	128 (54.0%)	
2 or more	2 (0.8%)	
CIO / TMT Characteristics	CIO - N (%)	TMT - N (%)
CIO/TMT Title	CIO: 158 (65.0%) IS Director/Mgr: 64 (26.4%) VP: 15 (6.2%) Other: 6 (2.4%)	CEO: 91 (30.0%) CFO: 67 (22.2%) COO: 44 (14.5%) VP: 86 (28.3%) Other: 15 (5%)
<u>Educational Background</u>		
PhD / MD / JD	11(4.6%) / 0(0.0%) / 0(0.0%)	14(4.7%) / 24(8.0%) / 12(4.0%)
Masters Degree	103 (43.1%)	169 (56.1%)
Bachelors Degree	106 (44.3%)	77 (25.6%)
Associates Degree	10 (4.2%)	1 (0.3%)
High School Degree	9 (3.8%)	4 (1.3%)
Firm Characteristics	N	Mean or %
Annual Sales (million \$)	219	\$234
Number of Employees	217	1,700
Healthcare / Non-Healthcare	152 / 91	62.6% / 37.4%
Private / Public	214 / 14	93.9% / 6.1%
U.S. Based / Non-U.S. (3 Canada; 1 Iceland)	239 / 4	98.4% / 1.6%

Note: N = 243 for CIO respondents; N = 303 for TMT members (including duplicate respondents from each firm)

Table 3: Summary Statistics

Variable	N	Mean	Std Dev	Min.	Max.
IS Strategic Alignment¹ (3 questions – average of CIO/TMT responses)	243	4.13	0.61	1.33	5.00
Shared Understanding¹ (4 questions – average of CIO/TMT responses)	243	4.01	0.55	2.13	5.00
Shared Language¹ (3 questions – average of CIO/TMT responses)	243	3.91	0.51	2.35	5.00
Shared Domain Knowledge					
CIO's Business Knowledge ² (3 questions)	243	3.85	0.82	1.33	5.00
TMT's Strategic IS Knowledge ² (3 questions)	241	2.93	0.88	1.33	5.00
Systems of Knowing					
Structural SK – Extent of TMT Participation ⁴ (1 question)	240	4.48	0.79	1.00	5.00
Structural SK – Reporting Level ⁵ (1 question)	237	2.44	0.51	1.00	3.00
Structural SK – Formal Interaction ³ (1 question)	242	5.60	1.07	2.00	7.00
Social SK ³ (3 questions)	243	5.29	0.86	2.30	7.00
CIO Educational Mechanisms					
CIO's Management of TMT Expectations ¹ (5 Questions)	243	4.33	0.45	2.60	5.00
CIO's Organization of Educational Events ³ (4 questions)	241	2.07	0.91	1.00	6.00
Experiential Characteristics					
Common CIO/TMT Interests ¹ (1 question)	242	2.60	0.80	1.00	5.00
CIO Business Experience ⁶	242	8.36	7.51	0.00	38.00
TMT IS Experience ⁶	240	1.33	4.14	0.00	33.00
Demographic Characteristics					
CIO Age ⁶	239	48.66	7.60	28.00	65.00
TMT Member Age ⁶	241	51.12	7.01	33.00	69.00
Industry Characteristics					
Annual Sales (million \$)	219	\$234	\$674	\$.04	\$6,600
Number of Employees	217	1,700	2,665	3	18,500

¹ 5-point scale ranging from "strongly agree"(5) to "strongly disagree"(1); ² 5-point scale ranging from "extremely well informed" (5) to "not well informed" (1).;

³ 7-point scale ranging from "daily" (7) to "never" (1); ⁴ 5-point scale ranging from "team member"(5) to "never involved"(1); ⁵ direct report to CEO (3) to two or more levels (1); ⁶ measured in years.