

# Appendix A: Related Work on CIO Role Effectiveness

**Table A.1** Related work on CIO role effectiveness

Publication	Method/Sample	Applied theory	Abstract/Major findings
Al-Taie et al. [1]	Survey/162 senior IT executives	<ul style="list-style-type: none"> <li>Contingency approach to leadership</li> <li>General management role model</li> </ul>	Using the contingency approach to leadership, this paper investigated the influence of an organization's strategic IT vision on both CIO roles and CIO structural power. The survey data shows that the strategic IT vision of an organization influences the CIO roles, and that there is significant positive association between the IT vision and the CIO's structural power in terms of reporting structure and CIO job title
Chen and Wu [18]	Survey/152 matched-paid CIOs and CEOs	<ul style="list-style-type: none"> <li>Empowerment theory</li> <li>Role-based performance theory</li> </ul>	Viewed from the perspective of the activity competency model, the authors developed a conceptual framework for investigating the capability of IT management personnel and its impact on the performance of a CIO in eight different roles. The survey data from CIOs and CEOs demonstrate that both IT competencies and managerial competencies have a positive impact on CIO role performance through the IT management capability of the CIO
Chun and Mooney [20]	Interview/17 CIOs		The authors investigated how the CIO's job has changed and evolved over the past decades. Based on interview data, they argue that the

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**Table A.1** (continued)

Publication	Method/Sample	Applied theory	Abstract/Major findings
			CIO's role has evolved over the past decades to reflect both the firm's IT infrastructure and the firm's IT strategy. The degree to which a firm has standardized its IT infrastructure, and the degree to which IT enables core products, services, or processes of the firm, influence the nature of the CIO role
Grover et al. [38]	Survey/71 CIOs and 40 IT middle manager	• General management role model	This paper examined six managerial roles of the CIO based on Mintzberg's general managerial role model. The survey data indicate that CIOs differ from manufacturing and sales executives in the relative importance they place on managerial roles. This difference does not exist between CIOs and finance executives or between CIOs and IT managers. Further, the results indicate that both the maturity of the organization's IT management and the degree of centralization of the IT resource determine the importance of the different CIO roles
Leidner and Mackay [73]	Interview/36 CIOs		During the first year on the job, incoming CIOs use diverse approaches to establish their credibility and to provide value to their firms. The authors categorized the transition approaches of CIOs as either incremental or radical. Incremental means that during the first year, CIOs initiated change in only one major area at a time (IT human resources, IT processes, IT infrastructure, or IT relationship with the business). Radical means that within the first year, CIOs simultaneously initiated change in at least three of the four major areas. Based on interview data, the authors found that CIOs choice of transition approach is closely associated with the IT leader visibility of their predecessor

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**Table A.1** (continued)

Publication	Method/Sample	Applied theory	Abstract/Major findings
Li et al. [75]	Survey/129 matched-pair CIOs and business executives	<ul style="list-style-type: none"> <li>• General management role model</li> <li>• Upper echelons theory</li> </ul>	The authors draw upon the upper echelon theory to investigate the relationship between CIO role effectiveness and organizational innovative use of IT. The survey data show that the intensity of relationship between strategic CIO role effectiveness and organizational innovative use of IT is much stronger in organizations that articulate a transform IT vision. However, operational CIO role effectiveness was not found to have significant impact on organizational innovative use of IT across all IT visions (this relationship is completely mediated by strategic CIO role effectiveness)
Peppard et al. [95]	Interview/26 CIOs, 12 CxOs, 2 recruiters, and 2 industry analysts and commentators		To better understand the CIO roles, together with the causes and consequences of ambiguity surrounding these roles, the authors conducted interviews with various managers. Their findings indicate that present CIOs operate in five different roles. The appropriate role for a particular organization at a point in time is determined by the criticality of IT for its competitive differentiation and the maturity of its IT leadership capabilities. Both factors are strongly influenced by the digital literacy of the TMT
Preston et al. [103]	Survey/174 matched-pair CIOs and top managers		Organizations invest in IT initiatives to improve their level of performance, but the results from the payoff of IT investments are mixed. This paper presents evidence that the variation in benefits derived from IT depends on the firm's CIO leadership profile. This profile is determined by whether the CIO's level of strategic decision-making authority is high or low, and whether the CIO's strategic leadership capability is high or low. Based on survey data, the authors show that the level of IT contribution to a firm's

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**Table A.1** (continued)

Publication	Method/Sample	Applied theory	Abstract/Major findings
			performance varies according to the CIO leadership profile
Ross and Feeny [115]	Conceptual/n. a.	<ul style="list-style-type: none"> <li>• Organizational learning</li> </ul>	This paper historically analyzed the forces that have shaped the CIO roles in organizations over the past decades in order to explain the current responsibilities of the CIO and to discuss how the CIO role might evolve
Smaltz et al. [120]	Survey/100 matched-pair CIOs and top managers	<ul style="list-style-type: none"> <li>• General management role model</li> <li>• Role-based performance</li> <li>• Upper echelons theory</li> </ul>	Despite a wealth of research about what roles CIOs should play in contemporary firms, there has been limited empirical research on the antecedents of CIO effectiveness in those roles. Based on survey data from CIOs and top managers, the authors argue that the CIO capabilities, in the form of business and strategic IT knowledge, political savvy, and interpersonal communication, makes CIOs effective. The results further indicate that high levels of CIO/TMT engagements do not directly impact CIO role effectiveness, but are mediated by the effects of CIO capabilities
Weill and Woerner [139]	Mixed methods/n. a.		CIO activities are expanding from providing IT services to including external customer responsibilities, working with non-IT managers, and managing enterprise processes. Therefore, the authors identified emerging key activities for four types of CIOs, and then analyzed how CIOs spend their time across these activities. Further, they analyzed the most important governance mechanism for those four CIO types

Note: n. a. = not applicable

## Appendix B: Analyzed Papers in the IS Literature

**Table B.1** Papers relevant for CIO role effectiveness

Journals and conference proceedings	Relevant to CIO role effectiveness
California Management Review	3
Decision Sciences	1
IEEE Transactions on Engineering Management	6
Information and Management	9
Information Systems Journal	1
Information Systems Research	3
Information Systems Management	4
International Journal of Information Management	2
Journal of Business Research	1
Journal of Information Technology	2
Journal of Management Information Systems	8
Journal of Strategic Information Systems	2
MIS Quarterly	23
MIS Quarterly Executive	10
Omega	2
Proceedings of the Americas Conference on Information Systems	2
Proceedings of the Australasian Conference on Information Systems	2
Proceedings of the International Conference on Information Systems	3
Proceedings of the Pacific Asia Conference on Information Systems	2
Sloan Management Review	6
Other	6
<b>Total</b>	<b>98</b>

# Appendix C: Conceptualization of the CIO Roles

**Table C.1** Categorization of the CIO roles<sup>a</sup>

Publication	CIO role in the literature	Description of the CIO role	Mapped to category
Grover et al. [38]	Entrepreneur	"...identifies business needs and develops solutions that change business situations." (p. 112)	Business thinker
	Leader	"...supervising, hiring, training, and motivating a cadre of specialized personnel." (p. 110)	Innovation driver
	Liaison	"...communicate with the external environment including exchanging information with IS suppliers, customers, buyers, market analysts, and the media." (p. 112)	Relationship manager
	Monitor	"...scan the external environment to keep up with technical changes and competition." (p. 112)	Integration advisor
	Resource allocator	"...decide how to allocate human, financial, and information resources." (p. 112)	Technology provider
	Spokesman	"...extend organizational contacts outside the department to other areas of the organization." (p. 111)	Strategic supporter
Ross and Feeny [115]	Business visionary	"...one of the main drivers of strategy by recognizing the emerging capabilities and applications of information technology, and arguing their significance to the business." (p. 399)	Business thinker
	Functional head	"...developing new systems to time and budget; achieving the ROI expected when the investment was approved; and operating the portfolio of developed systems to the agreed service levels and satisfaction of the user community." (p. 398)	Technology provider
	Strategic partner	"...designing and developing a complex IT organization that can address immediate business needs while building an infrastructure that supports ongoing needs as well." (p. 399)	Strategic supporter

(continued)

**Table C.1** (continued)

Publication	CIO role in the literature	Description of the CIO role	Mapped to category
Smaltz et al. [120]	Information steward	"...organizational steward for high quality data and operationally reliable systems." (p. 216)	Integration advisor
	Integrator	"...providing leadership in enterprise-wide integration of processes, information, and decision-support as digital options for the business." (p. 216)	Integration advisor
	IT educator	"...IT missionary, who provides insights and understanding about key information technologies is critical." (p. 216)	Business thinker
	Relationship architect	"...build relationships both across the enterprise as well as outside the enterprise with key IT services providers..." (p. 216)	Relationship manager
	Strategist	"...be effective business partners and help their organizations leverage valuable opportunities for IT-based innovation and business process redesign." (p. 216)	Innovation driver
Leidner and Mackay [73]	Utilities provider	"...building and sustaining a solid, dependable, and responsive IT infrastructure services." (p. 216)	Technology provider
	Big-bang CIO	"...implementation of one or more large organization-wide applications intended to fundamentally improve organizational performance." (p. 21)	Business thinker
	Keep-it-running CIO	"...reducing the cost of IT, while paying less attention to championing major new systems." (p. 21)	Technology provider
	Value-adding CIO	"...overseeing the development of new, or enhancements to existing, systems that are intended to address a business unit need." (p.21)	Strategic supporter
	Preston et al. [103]	IT advisor	"...has limited decision-making authority but is a highly capable leader with vast strategic knowledge who may be well suited to serve as a strategic advisor to the top management team on IT issues." (p. 64)
IT laggard		"...are provided with a relatively high level of decision-making authority, but they do not have the requisite leadership skills to capitalize on the strategic authority provided to them." (p. 64)	Strategic supporter
IT mechanic		"...have a low level of both strategic effectiveness and strategic decision-making authority." (p. 62)	Technology provider
IT orchestrator		"...effective strategic leader who is granted a great deal of freedom in making strategic decisions." (p. 61)	Innovation driver

(continued)

**Table C.1** (continued)

Publication	CIO role in the literature	Description of the CIO role	Mapped to category
Chun and Mooney [20]	Innovator and creator	"...innovation and new opportunities, implementing new IS across the corporation." (p. 330)	Innovation driver
	Landscape cultivator	"...technical improvement and rationalization of the firm's data by maintaining and integrating existing applications and processes." (p. 330)	Integration advisor
	Opportunity seeker	"...improve business processes within and outside the firm." (p.330)	Business thinker
	Triage nurse and firefighter	"...fix urgent IS-related problems (e.g., technical bugs, failed systems and disrupted processing)." (p. 330)	Technology provider
Chen and Wu [18]	Business visionary	"...lead the executive team in developing a business vision that captures the opportunities presented by IT." (p. 148)	Business thinker
	Business system thinker	"...think through new business models and introduce new management processes that leverage the emerging/enabling IT..." (p. 148)	Business thinker
	Entrepreneur	"...identify business needs and develops solutions that change business situations and ensure that rapidly evolving technical opportunities are...strategically exploited in the organization." (p. 148)	Business thinker
	Informed buyer	"...deploy external resources in a manner that maximized the effectiveness of internal resources and lowered organizational costs." (p. 148)	Relationship manager
	Infrastructure builder	"...create the coherent blueprint for a technical platform/infrastructure which responds to present and future business needs." (p. 148)	Integration advisor
	Organizational designer	"...devise and continuously adapt an IT organization that responded to the business-side (business model/process) realities." (p. 148)	Strategic supporter
	Relationship builder	"...facilitate the wider dialogue, establishing understanding, trust, and cooperation among business users and IT specialists." (p. 148)	Relationship manager
	Value configurer	"...define an organization's strategic future, who has an unrivalled understanding of the ideas that are being deployed throughout the organization and even outside its boundaries." (p. 148)	Innovation driver
Peppard et al. [95]	Agility IT director/CIO	"...supply of technology and systems to support an organization in which demand is being defined as an everyday occurrence by the business." (p. 37)	Relationship manager

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**Table C.1** (continued)

Publication	CIO role in the literature	Description of the CIO role	Mapped to category
	Evangelist CIO	"...raising the profile of information within the organization, 'selling' the idea that information can potentially be leveraged to generate significant business value." (p. 35)	Business thinker
	Facilitator CIO	"...ensuring that information skills and capabilities pervade every part of the organization." (p. 37)	Integration advisor
	Innovator CIO	"...identifies and develops opportunities to deploy new IT-enabled processes and products/services that give the organization a clear source of competitive differentiation..." (p. 35)	Innovation driver
	Utility IT director	"...provide IT infrastructure, systems, data, and telecommunications capability." (p. 35)	Technology provider
Li et al. [75]	Information strategist	"...developing information strategy that aligns with the business strategy." (p. 6)	Integration advisor
	Integrator	"...integrating the enterprise systems across the various business units in all organizations with multiple lines of business since many organizations operate in a highly disassociated manner." (p. 6)	Integration advisor
	IS contract oversight	"...oversight of IS contractual arrangements since more organizations outsource portions of there is services." (p. 6)	Relationship manager
	IS strategist	"...partner with TMT to fully leverage the potential value of IT investments." (p. 6)	Innovation driver
	IT manager	"...operating IT function plan effectively and enabling the development and leveraging of IS human capital." (p. 6)	Technology provider
Weill and Woerner [139]	Embedded CIO	"...being part of the senior leadership team participating daily in strategic conversations and overseeing enterprise-wide business operations." (p. 68)	Innovation driver
	Enterprise processes CIO	"...overseeing and operating key enterprise business processes as well as IT." (p. 69)	Integration advisor
	IT services CIO	"...provide all the IT services the firm needs to operate in a digital economy." (p. 68)	Technology provider
	External customer CIO	"...strengthen the company's relationships with its customers and to help sell and deliver products and services." (p. 70)	Relationship manager

<sup>a</sup>Note that the study from Al-Taie et al. [1] is not included in this list because the authors literally cite the CIO roles from Smaltz et al. [120]

# Appendix D: Conceptualization of the CIO Role Effectiveness Model

**Table D.1** Constructs important for CIO role effectiveness

Publication	Construct from the literature	Definition of the construct	Mapped to construct
Al-Taie et al. [1]	CIO structural power	"...CIO's level of legitimate power in their formal position within the hierarchy of the organization." (p. 69)	CIO reporting structure
	Organizational vision of IT	"...shared, aspired state of the role that IT should play in the firm." (p. 61)	IT strategy
Chen and Wu [18]	CIO role performance	"...role performance of CIOs in the context of specific roles, behaviors, and responsibilities that are regarded as salient in today's business environment." (p. 149)	CIO role effectiveness
	IT competence	"...levels of skills/knowledge that enable him or her to configure, implement, apply, and evaluate IT, with the purpose of establishing enterprise-wide IT infrastructure, initiate various sorts of business applications, and integrate IT functions with critical business processes." (p. 149)	Technical competence
	Management competence	"...level of skills/knowledge that enabled them to understand the domain-specific knowledge of business, speak the language of business, and interact with their business partners in other divisions." (p. 149)	Business competence
Chun and Mooney [20]	IS strategy	"...represents a continuum of firms that have implemented a stable and risk averse IS strategy through firms that have followed a forward-thinking and risk-taking approach." (p. 330)	IT strategy

(continued)

**Table D.1** (continued)

Publication	Construct from the literature	Definition of the construct	Mapped to construct
	IS Infrastructure	"...represents a continuum of how firms implemented their IS infrastructures, ranging from those that have many non-standard applications, processes, and functions to those with systemic infrastructures integrated across business processes and organizational units." (p. 330)	IT infrastructure
Grover et al. [38]	IS maturity	"...membership on the TMT. . .provides the CIO with regular opportunities for engagement with other top managers and is perceived as being effective in addressing the firm's salient IT management and use challenges." (p. 212)	TMT understanding of IT
	IS maturity	"...formalization level of IS control mechanisms, level of user awareness and involvement, availability of strategic IS planning, and the degree to which the setting of IS objectives is rational and compatible with organizational objectives." (p. 114 f.)	IT governance structure
	IS centralization	n. a.	IT strategy
Li et al. [75]	CIO strategic role effectiveness	"...CIO strategic role effectiveness is defined as the top business executives' assessments of the extent to which the CIO leads the entire firm in exploring IT-enabled innovations and new strategic opportunities." (p. 3)	CIO role effectiveness
	CIO operational role effectiveness	"...define CIO operational role effectiveness as the top business executives' assessments of the extent to which the CIO leads the IT function to exploit existing IT resources to meet ongoing known business needs." (p. 3)	CIO role effectiveness
Peppard et al. [95]	Senior management digital literacy	n. a.	TMT understanding of IT
	IT governance	n. a.	IT governance structure
Preston et al., [103]	Strategic IT knowledge	n. a.	IT management competence
	Strategic business knowledge	n. a.	Business competence
	Communication ability	n. a.	Communication competence
	Political savvy	n. a.	Political competence

(continued)

**Table D.1** (continued)

Publication	Construct from the literature	Definition of the construct	Mapped to construct
	CIO is a member of the top management team	n. a.	CIO membership in the TMT
	CIO reporting level	n. a.	CIO reporting structure
	Strategic IT vision	n. a.	IT strategy
	Dedication of resources to IT	n. a.	IT strategy
Smaltz et al. [120]	CIO role effectiveness	“CIO Role Effectiveness is the TMT members’ assessment of the CIO in the context of specific roles, behaviors, and responsibilities that are regarded as salient in firms.” (p. 210)	CIO role effectiveness
	Interpersonal communication skill	“CIO’s ability to communicate clearly, persuasively, and in business terms.” (p. 211)	Communication competence
	Extent of trusting relationships	“...developing a trusting relationship with the other members of the TMT seems an important dimension of CIO engagements with the TMT.” (p. 213)	Political competence
	TMT membership	“...membership on the TMT...provides the CIO with regular opportunities for engagement with other top managers and is perceived as being effective in addressing the firm’s salient IT management and use challenges.” (p. 212)	CIO membership in the TMT
	Strategic IT knowledge	“Strategic IT knowledge is defined as awareness and understanding about current and emerging information technologies, their relevance for the firm, and insights related to investment timing and acquisition of information technologies.” (p. 211)	IT management competence
	Strategic business knowledge	“CIO’s strategic business knowledge is defined as the person’s understanding and appreciation of their firm’s competitive forces and business strategies.” (p. 211)	Business competence
	Political savvy	“Political savvy an executive’s ability to negotiate, influence, and persuade.” (p. 211)	Political competence
Weill and Woerner [139]	IT governance	n. a.	IT governance structure

Note: n. a. = not applicable

**Table D.2** Relationships important for CIO role effectiveness

Publication	Nature of the construct in the literature	Relationship mapped to our model
Al-Taie et al. [1]	Organizational vision of IT → CIO roles	IT strategy → CIO role effectiveness
	Organizational vision of IT → CIO structural power	Management environment (IT strategy) → CIO hierarchical position (CIO reporting structure)
Chen and Wu [18]	IT competence → IT management activity effectiveness → CIO role performance	Technical competence → CIO role effectiveness
	Management competence → IT management activity effectiveness → CIO role performance	Business competence → CIO role effectiveness
Chun and Mooney [20]	IS strategy → CIO role evolution	IT strategy → CIO role effectiveness
	IS Infrastructure → CIO role evolution	IT infrastructure → CIO role effectiveness
Grover et al. [38]	IS strategy → IS Infrastructure	Management environment (IT strategy) → IT infrastructure
	IS centralization → Nature of the CIO role	IT strategy → CIO role effectiveness
Peppard et al. [95]	IS maturity → Nature of the CIO role	IT governance structure → CIO role effectiveness
	Senior management digital literacy → CIO role success	TMT understanding of IT → CIO role effectiveness
Preston et al. [103]	IT governance → CIO role success	IT governance structure → CIO role effectiveness
	Strategic IT knowledge → CIO leadership profile	IT management competence → CIO role effectiveness
	Strategic business knowledge → CIO leadership profile	Business competence → CIO role effectiveness
	Communication ability → CIO leadership profile	Communication competence → CIO role effectiveness
	Political savvy → CIO leadership profile	Political competence → CIO role effectiveness
	CIO is a member of the top management team → CIO leadership profile	CIO membership in the TMT → CIO role effectiveness
	CIO reporting level → CIO leadership profile	CIO reporting structure → CIO role effectiveness
	Strategic IT vision → CIO leadership profile	IT strategy → CIO role effectiveness
Smaltz et al. [120]	Dedication of resources to IT → CIO leadership profile	IT strategy → CIO role effectiveness
	Strategic business knowledge → CIO capability → CIO role effectiveness	Business competence → CIO role effectiveness
	Strategic IT knowledge → CIO capability → CIO role effectiveness	IT management competence → CIO role effectiveness

(continued)

**Table D.2** (continued)

Publication	Nature of the construct in the literature	Relationship mapped to our model
	Interpersonal communication skill → CIO capability → CIO role effectiveness	Communication competence → CIO role effectiveness
	Political savvy → CIO capability → CIO role effectiveness	Political competence → CIO role effectiveness
	Extent of trusting relationships → CIO capability → CIO role effectiveness	Political competence → CIO role effectiveness
	TMT membership → TMT/CIO engagements → CIO capability → CIO role effectiveness	CIO hierarchical position (CIO membership in the TMT) → CIO personal competence → CIO role effectiveness
Weill and Woerner [139]	IT governance mechanisms → CIO role performance	IT governance structure → CIO role effectiveness

## Appendix E: Methodological Conclusion Resulting from Our Review

**Table E.1** Research method of papers included in review (N = 98 papers)

Publication	Method	Sample size	Country of investigation
Al-Taie et al. [1]	Survey	162	Australia
Applegate and Elam [2]	Survey	64	United States
Armstrong and Sambamurthy [3]	Survey	153	United States
Banker et al. [5]	Secondary data	258	United States
Bassellier et al. [6]	Survey	404	United States
Bassellier et al. [7]	Survey	111	Canada
Boynton et al. [9]	Survey	132	United States
Broadbent and Weill [11]	Mixed methods	n. a.	n. a.
Broadbent et al. [12]	Case study	26	Asia, Australia, Europe, North America
Broadbent et al. [13]	Case study	4	n. a.
Chan et al. [15]	Survey	170	Canada, United States
Chan et al. [16]	Survey	226	n. a.
Chatterjee et al. [17]	Event study	96	United States
Chen and Wu [18]	Survey	152	China, Taiwan
Chen et al. [19]	Survey	174	United States
Chun and Mooney [20]	Interview	17	United States
Cohen and Dennis [21]	Survey	111	South Africa
Cybulski and Lukaitis [22]	Focus groups	16	Australia
De Haes and Van Grembergen [23]	Mixed methods	n. a.	Belgium
Doll [25]	Interview	33	United States
Earl and Feeny [28]	Interview	60	United States
Earl and Feeny [29]	Conceptual	n. a.	n. a.
Enns et al. [31]	Survey	69	Canada, United States
Enns et al. [32]	Survey	69	Canada, United States
Faraj and Sambamurthy [33]	Survey	333	United States

(continued)

**Table E.1** (continued)

Publication	Method	Sample size	Country of investigation
Feeny and Willcocks [35]	Conceptual	n. a.	n. a.
Feeny et al. [36]	Interview	14	United Kingdom
Gottschalk [37]	Survey	471	Norway
Grover et al. [38]	Survey	111	United States
Gupta [40]	Conceptual	n. a.	n. a.
Hooper and Bunker [47]	Interview	17	New Zealand
Huang and Quaddus [49]	Survey	119	Taiwan
Hunter [51]	Interview	18	New Zealand, Taiwan, United States
Ives and Olson [53]	Observation	6	United States
Jarvenpaa and Ives [54]	Survey	55	United States
Johnson and Lederer [55]	Survey	202	United States
Johnson and Lederer [56]	Survey	202	United States
Johnson and Lederer [57]	Survey	202	United States
Johnson and Lederer [58]	Survey	202	United States
Jones et al. [59]	Survey	39	United States
Kaarst-Brown [60]	Case study	2	United States
Karimi et al. [62]	Survey	213	United States
Kearns [63]	Survey	161	United States
Kearns and Lederer [64]	Survey	161	United States
Kearns and Sabherwal [65]	Survey	274	United States
Kettinger et al. [67]	Case study	4	Europe
Lane and Koronios [69]	Survey	46	Australia
Lederer and Mendelow [70]	Interview	20	United States
Lederer and Mendelow [71]	Interview	20	United States
Lee et al. [72]	Survey	98	United States
Leidner and Mackay [73]	Interview	36	United States
Leidner et al. [74]	Interview	20	United States
Li et al. [75]	Survey	126	China
Li and Ye [76]	Secondary data	216	United States
Li and Tan [77]	Survey	81	n. a.
Li et al. [78]	Survey	89	Singapore
Luftman and Brier [79]	Mixed methods	n. a.	United States
Luftman and Kempaiah [80]	Survey	197	Europe, India, Latin America, United States
Maes and De Vries [81]	Conceptual	n. a.	n. a.
Martin [82]	Survey	15	n. a.
Mata et al. [85]	Conceptual	n. a.	n. a.
Nelson and Coopridier [90]	Survey	86	United States
Peppard [93]	Interview	42	Europe
Peppard et al. [94]	Mixed methods	n. a.	n. a.
Peppard et al. [95]	Interview	42	Europe

(continued)



**Table E.1** (continued)

Publication	Method	Sample size	Country of investigation
Pervan [96]	Survey	452	Australia
Piccoli and Ives [97]	Conceptual	n. a.	n. a.
Preston and Karahanna [100]	Survey	382	United States
Preston and Karahanna [101]	Survey	243	United States
Preston et al. [102]	Survey	207	France, United States
Preston et al. [103]	Survey	174	United States
Raghunathan and Raghunathan [104]	Survey	192	United States
Ragu-Nathan et al. [105]	Survey	231	United States
Ranganathan and Jha [107]	Secondary data	205	United States
Rathnam et al. [108]	Interview	50	United States
Rattanasampan and Chaidaroon [109]	Conceptual	n. a.	n. a.
Reich and Benbasat [110]	Case study	10	Canada
Reich and Benbasat [111]	Case study	10	Canada
Rockart et al. [113]	Conceptual	n. a.	n. a.
Rockart et al. [114]	Interview	16	Europe, Japan, United States
Ross and Feeny [115]	Conceptual	n. a.	n. a.
Ross et al. [116]	Conceptual	n. a.	n. a.
Sambamurthy et al. [117]	Conceptual	n. a.	n. a.
Sharma and Rai [119]	Survey	350	United States
Smaltz et al. [120]	Survey	100	United States
Sobol and Klein [122]	Survey	92	United States
Spitze and Lee [123]	Interview	14	United States
Stephens et al. [124]	Observation	5	United States
Štemberger et al [125]	Survey	152	Slovenia
Tallon [127]	Survey	241	United States
Tan and Gallupe [128]	Interview	80	New Zealand
Watson [132]	Survey	43	Australia
Watson et al. [133]	Secondary data	n. a.	n. a.
Watts and Henderson [134]	Interview	36	United States
Weill [136]	Survey	256	n. a.
Weill and Woerner [139]	Mixed methods	n. a.	n. a.
Willson and Pollard [141]	Case study	1	Australia
Wu et al. [142]	Survey	264	Taiwan

Note: n. a. = not applicable

# References

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