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# IT CONSUMERIZATION AND THE TRANSFORMATION OF IT GOVERNANCE

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# Appendix A

## IT Governance Literature Review

**Table A1. Review of IT Governance Literature**

| Study | Definition of IT Governance | Dimension of IT Governance |
|---|---|---|
| Olson, M. H., and Chervany, N. L. 1980. "The Relationship between Organizational Characteristics and the Structure of the Information Services Function," *MIS Quarterly* (4:2), pp. 57-68. | "What degree of control over the information services function should be exercised by its users, and how much control should be retained in a centralized department?" (p. 57) | **Patterns:**<br>• Structural arrangements defining IT decision rights and accountabilities (structural arrangements) |
| King, J. L. 1983. "Centralized Versus Decentralized Computing: Organizational Considerations and Management Options," *Computing Surveys* (15:4), pp. 319-349. | "Centralization versus decentralization of control concerns the locus of decision-making activity in the organization. Centralization implies the concentration of decision-making power in a single person or small group; decentralization implies that decisions are made at various levels in the organizational hierarchy." (p. 321) | **Patterns:**<br>• Structural arrangements |
| Brown, C. V. 1997. "Examining the Emergence of Hybrid IS Governance Solutions: Evidence from a Single Case Site," *Information Systems Research* (8:1), pp. 69-94. | "IS governance forms….The separation of decision-making authority for the management of systems operations from decision-making authority for the management of systems development" (p. 70) | **Patterns:**<br>• Structural arrangements |
| Sambamurthy, V., and Zmud, R.W. 1999. "Arrangements for Information Technology Governance: A Theory of Multiple Contingencies," *MIS Quarterly* (23:2), pp. 261-290. | "IT governance arrangements … represent an organization's IT-related authority patterns." (p. 262) | **Patterns:**<br>• Structural arrangements |

**Table A1. Review of IT Governance Literature (Continued)**

| Study | Definition of IT Governance | Dimension of IT Governance |
|---|---|---|
| Weill, P., and Ross, J. W. 2004. *IT Governance: How Top Performers Manage IT Decision Rights for Superior Results*, Boston: Harvard Business School Press. | "We define IT governance as specifying the decision rights and accountability framework to encourage desirable behavior in using IT" (p. 2) | **Patterns:**<br>• Structural arrangements |
| Weill, P. 2004. "Don't Just Lead Govern: How Top-Performing Firms Govern IT," *MIS Quarterly Executive* (3:1), pp. 1-17. | "IT governance represents the framework for decision rights and accountabilities to encourage desirable behavior in the use of IT…governance is about systematically determining who makes each type of decision (a decision right), who has input to a decision (an input right) and how these people (or groups) are held accountable for their role." (p. 3) | **Patterns:**<br>• Structural arrangements |
| Peterson, R. 2004. "Crafting Information Technology Governance," *Information Systems Management* (21:4), pp. 7-22. | "IT governance describes the distribution of IT decision-making rights and responsibilities among different stakeholders in the enterprise, and defines the procedures and mechanisms for making and monitoring strategic IT decisions." (p. 7) | **Patterns:**<br>• Structural arrangements<br>• Formal processes ensuring desirable access and use of IT in alignment with organizational needs (formal processes)<br>• Relational mechanisms facilitating communication, coordination, and shared understanding between business and IT stakeholders (relational mechanisms) |
| Tanriverdi, H. 2006. "Performance Effects of Information Technology Synergies in Multibusiness Firms," *MIS Quarterly* (30:1), pp. 57-77. | "this study measured IT governance mode as a categorical variable assessing whether a multibusiness firm uses a centralized, decentralized, or hybrid locus of IT decision-making authority." (p. 64) | **Patterns:**<br>• Structural arrangements |
| Boh, W. F., and Yellin, D. 2006. "Using Enterprise Architecture Standards in Managing Information Technology," *Journal of Management Information Systems* (23:3), pp. 163-207. | "We focus on horizontal IT governance mechanisms, which are mechanisms designed to facilitate cross-unit collaboration with regard to setting and using EA [Enterprise Architecture] standards. Setting EA standards is a task that requires coordination across business units, so as to increase the likelihood that the standards will be used and followed in the organization." (p. 168) | **Focus**:<br>• Setting enterprise architecture standards<br>**Scope**:<br>• Business units<br>**Patterns**:<br>• Horizontal/Relational mechanisms facilitating communication, coordination, and shared understanding between business and IT stakeholders (horizontal/relational mechanisms) |
| Bowen, P. L., Cheung, M.-Y. D., and Rohde, F. H. 2007. "Enhancing IT Governance Practices: A Model and Case Study of an Organization's Efforts," *International Journal of Accounting Information Systems* (8:3), pp. 191-221. | "this paper views IT governance as the IT related decision making structure and methodologies implemented to plan, organize, and control IT activities." (p. 194). | **Patterns:**<br>• Structural arrangements<br>• Formal processes |
| Xue, Y., Liang, H., and William, R. B. 2008. "Information Technology Governance in Information Technology Investment Decision Processes: The Impact of Investment Characteristics, External Environment, and Internal Context," *MIS Quarterly* (32:1), pp. 67-96. | "To ensure alignment with the firm's overall vision and goals, IT governance is the practice that allocates decision rights and establishes the accountability framework for IT investment decisions (Weill and Ross 2004)….the allocation of final decision rights is only part of IT governance; while decision rights may be allocated by the organization *a priori*, the actual patterns of IT governance are contingent on contextual factors." (p. 68) | **Patterns:**<br>• Structural arrangements<br>• Formal processes |

**Table A1. Review of IT Governance Literature (Continued)**

| Study | Definition of IT Governance | Dimension of IT Governance |
|---|---|---|
| De Haes, S., and Van Grembergen, W. 2009. "An Exploratory Study into IT Governance Implementations and its Impact on Business/IT Alignment," *Information Systems Management* (26:2), pp. 123-137. | "IT governance consists of the leadership and organisational structures and processes that ensure that the organisation's IT sustains and extends the organisation's strategy and objectives." (p. 123) | **Patterns:**<br>• Structural arrangements<br>• Formal processes<br>• Relational mechanisms |
| Tiwana, A., and Konsynski, B. 2010. "Complementarities Between Organizational IT Architecture and Governance Structure," *Information Systems Research* (21:2), pp. 288-304. | "IT governance decentralization: The degree to which IT specification and IT implementation decisions are made by the line functions vis-à-vis the IT department. IT specification decisions pertain to what business processes in the line functions IT must support, the associated constraints (schedule, budget, quality), objectives, priorities, and performance expectations (e.g., service levels). IT implementation decisions pertain to the methods, programming languages, platforms, definition of IT standards and policies, and IT sourcing." (p. 294) | **Patterns:**<br>• Structural arrangements |
| Huang, R., Zmud, R. W., and Price, R. L. 2010. "Influencing the Effectiveness of IT Governance Practices through Steering Committees and Communication Policies," *European Journal of Information Systems* (19:3), pp. 288-302. | "The goal of IT governance is to direct and oversee an organization's IT-related decisions and actions such that desired behaviors and outcomes are realized. The design of IT governance systems involves three primary issues: determining which IT-related decisions are to be addressed through governance mechanisms, determining which individuals are allocated decision rights for these decisions and the nature of the decision rights, and determining how associated decision processes are to be orchestrated such that the appropriate individuals are involved and that these individuals understand the implications of possible actions to all stakeholders." (p. 289) | **Patterns:**<br>• Structural arrangements<br>• Formal processes |
| Tiwana, A., Konsynski, B., and Bush, A. A. 2010. "Platform Evolution: Coevolution of Platform Architecture, Governance, and Environmental Dynamics," *Information Systems Research* (21:4), pp. 675-687. | "Design rules refers to the rules that platform owners expect module developers to obey to ensure interoperability with the rest of the ecosystem…platform owners face a challenge in how to make design rules stable enough to sufficiently constrain developers, yet versatile enough not to overly constrain them." (p. 679)<br><br>"Decision rights partitioning refers to how decision-making authority is divvied up between the platform owner and module developers." (p. 679)<br><br>"Control refers to the formal and informal mechanisms implemented by a platform owner to encourage desirable behaviors by module developers, *and vice versa*." (p. 680) | **Patterns**:<br>• Architectural design rules<br>• Decision rights partitioning<br>• Formal and informal controls |

**Table A1. Review of IT Governance Literature (Continued)**

| Study | Definition of IT Governance | Dimension of IT Governance |
|---|---|---|
| Prasad, A., Heales, J., and Green, p. 2010. "A Capabilities-Based Approach to Obtaining a Deeper Understanding of Information Technology Governance Effectiveness: Evidence from IT Steering Committees," *International Journal of Accounting Information Systems* (11), pp. 214-232. | "IT governance specifies the decision rights and accountability framework to encourage desirable behavior in the use of IT (Weill and Ross 2004). It also includes the foundational mechanisms in the form of the leadership, and organizational structures and processes that ensure that the organization's IT sustains and extends the organization's strategies and objectives" (p. 216). | **Patterns:**<br>• Structural arrangements<br>• Formal processes<br>• Relational mechanisms |
| Xue, L., Ray, G., and Gu, B. 2011. "Environmental Uncertainty and IT Infrastructure Governance: A Curvilinear Relationship," *Information Systems Research* (22:2), pp. 389-399. | "IT governance refers to the pattern of decision making for IT-related activities such as strategic IT planning, IT infrastructure management, and application development." (p. 389) | **Patterns:**<br>• Formal processes |
| Bradley, R. V., Byrd, T. A., Pridmore, J. L., Thrasher, E., Pratt, R. M., and Mbarika, V. W. 2012. "An Empirical Examination of Antecedents and Consequences of IT Governance in US Hospitals," *Journal of Information Technology* (27:2), pp. 156-177. | "The study defines IT governance as the capacity of top management to control the formulation and implementation of the IT strategy via organizational structures and processes that produce desirable behaviors, which will ensure that IT initiatives sustain and extend the organization's strategy and objectives." (p. 157) | **Patterns:**<br>• Structural arrangements<br>• Formal processes |
| Prasad, A., Green, P., and Heales, J. 2012. "On IT Governance Structures and Their Effectiveness in Collaborative Organizational Structures," *International Journal of Accounting Information Systems* (13:3), pp. 199-220. | "IT governance, focusing on information and IT assets, specifies the decision rights and accountability framework to encourage desirable behavior in the use of IT (Weill and Ross, 2004). This behavior relates to the form of the leadership, and organizational structures and processes that ensure that the organization's IT sustains and extends the organization's strategies and objectives (IT Governance Institute, 2007). IT governance essentially places structure around how organizations IT strategy aligns with business strategy. This IT-business alignment will ensure that organizations continue to achieve their strategies and goals, and implementing ways to evaluate its performance." (p. 201) | **Patterns:**<br>• Structural arrangements<br>• Formal processes |
| Grover, V., and Kohli, R. 2012. "Cocreating IT Value: New Capabilities and Metrics for Multifirm Environments," *MIS Quarterly* (36:1), pp. 225-232. | "The *governance layer* [of multi-firm value cocreation ecosystems] focuses on setting up a control structure that reduces transaction costs and incentivizes new value cocreation. This is typically done through contracts and formal economic safeguards. However, social and informal controls can also play a major role and are arguably less costly in facilitating cocreation of value. The governance layer can be viewed as the layer that integrates the assets, complementary capabilities, and knowledge exchange layers." (p. 228) | **Focus**:<br>• New value cocreation activities and outcomes<br>**Scope**:<br>• Multiple developers and firms within a business/technology ecosystem<br>**Patterns**:<br>• Formal/contractual mechanisms<br>• Social/informal mechanisms<br>• Integration mechanisms |

**Table A1. Review of IT Governance Literature (Continued)**

| Study | Definition of IT Governance | Dimension of IT Governance |
|---|---|---|
| Tiwana, A., Konsynski, B., and Venkatraman, N. 2013. "Special Issue: Information Technology and Organizational Governance: The IT Governance Cube," *Journal of Management Information Systems* (30:3), pp. 7-12. | "Information technology (IT) has spawned previously infeasible forms of organizational governance, and these new logics have simultaneously amplified the need for effective IT governance…emergent governance arrangements have altered the conventional notions of organizational boundaries…such IT governance arrangements defy conventional dichotomizations such as centralization/decentralization or insourcing/outsourcing of IT activities…the IT Governance Cube…offers a simple framework for broadening the research conversation. It encompasses three dimensions along which IT governance research can be positioned." (p. 7-8) | **Focus:**<br>• IT artifacts<br>• Content<br>• Stakeholders<br>• Scope:<br>• Project<br>• Firm<br>• Ecosystem<br>• Patterns:<br>• Decision rights<br>• Control<br>• Architecture |
| Williams, C. K., and Karahanna, E. 2013. "Causal Explanation in the Coordinating Process: A Critical Realist Case Study of Federated IT Governance Structures," *MIS Quarterly* (37:3), pp. 933-964. | "Our research…suggests that *governing* is a negotiated coordinating process that unfolds over time and that governance structures are themselves evolving and negotiated." (p. 961)<br><br>The consensus-making mechanism "is the tendency of participants to engage in the creation of common meanings and shared understanding for what the coordinating effort is to accomplish, how the purpose is to be accomplished, and the language used to accomplish these." (p. 952)<br><br>The unit-aligning mechanism "refers to the tendency of autonomous units to engage in, or to resist, processes that bring unit and enterprise objectives and resource allocations into alignment." (p. 953) | **Focus**:<br>• Shared core services and central IT investments<br>• Customer IT services and spending<br>**Scope**:<br>• Central IT function<br>• Autonomous units<br>**Patterns**:<br>• Horizontal/Relational mechanisms<br>• Negotiating formal processes of aligning units with organizational needs |
| Tallon, P. P., Ramirez, R. V., and Short, J. E. 2013. "The Information Artifact in IT Governance: Toward a Theory of Information Governance," *Journal of Management Information Systems* (30:3), pp. 141-178. | "We use a framework developed by Peterson (2004) to divide IT governance practices into three types: structural (practices for assigning responsibilities for supervising, directing, and planning IT governance), procedural (practices for shaping user behaviors through IT value analysis, cost control, and resource allocation), and relational (practices that shape involvement in IT governance through business-IT partnerships, IT knowledge sharing, idea exchange, communications, and conflict resolution)." (p. 144) | **Patterns:**<br>• Structural arrangements<br>• Formal processes<br>• Relational mechanisms |
| Winkler, T. J., and Brown, C. V. 2013. "Horizontal Allocation of Decision Rights for On-Premise Applications and Software-as-a-Service," *Journal of Management Information Systems* (30:3), pp. 13-48. | "We define application governance as the locus of decision rights for a business application." (p. 17)<br><br>"We define IT governance as the locus of application-related decision rights (i.e., on business application needs, IT investment, and IT architecture) at the level of the overall IT function." (p. 19) | **Focus**:<br>• Business applications<br>• IT investments<br>• IT architecture<br>**Scope**:<br>• Application owners<br>• IT function<br>**Patterns**:<br>• Structural arrangements |
| Drnevich, P. L., and Croson, D. C. 2013. "Information Technology and Business-Level Strategy: Toward An Integrated Theoretical Perspective," *MIS Quarterly* (37:2), pp. 483-509. | There is a difference between "governance *of* IT" and "governance *via* IT, a business-strategy level issue." (p. 492) | **Focus**:<br>• Business/IT strategy execution<br>**Scope**:<br>• Any organizational stakeholder<br>**Patterns**:<br>• Governance *via* IT |

**Table A1. Review of IT Governance Literature (Continued)**

| Study | Definition of IT Governance | Dimension of IT Governance |
|---|---|---|
| Buchwald, A., Urbach, N., and Ahlemann, F. 2014. "Business Value through Controlled IT: Toward an Integrated Model of IT Governance Success and its Impact," *Journal of Information Technology* (29:2), pp. 128-147. | "[IT governance] as a responsibility of the board of directors and executive management" and "is an integral part of enterprise governance and consists of the leadership and organizational structures and processes that ensure that the organization's IT sustains and extends the organization's strategies and objectives" (p. 129) | **Patterns:**<br>• Structural arrangements<br>• Formal processes<br>• Relational mechanisms |
| Wareham, J., Fox, P. B., and Cano Giner, J. L. 2014. "Technology Ecosystem Governance," *Organization Science* (25:4), pp. 1195-1215. | "In technology ecosystems, we identify three main dimensions across which the stability–evolvability equilibrium must be managed: (i) outputs, (ii) actors, and (iii) identifications. For technology ecosystem governance, we argue as follows.<br>• Stability and evolvability in outputs is achieved through (a) variance-reducing mechanisms to ensure standards and (b) variance-increasing mechanisms to generate variety.<br>• Standard and variety in outputs is realised by actors whose actions and behaviour must be simultaneously controlled and autonomous. This is enabled by (c) variance-reducing mechanisms to control actors and (d) variance-increasing mechanisms to leverage the autonomy of actors for innovative responses to client requirements.<br>• Achieving an appropriate balance between controlled and autonomous behaviour by actors is enabled by a combination of individual and collective identifications, where (e) collective identifications reduce undesirable variance toward contributions to the social goods of the ecosystem and (f) individual identifications increase desirable variance to encourage explorative and entrepreneurial responses." (p. 1199) | **Focus**:<br>• Executing technology ecosystem strategies<br>**Scope**:<br>• Multiple developers and firms within a business/technology ecosystem<br>**Patterns**:<br>• Achieving balance between stability and change/evolvability through combinations of various variance-reducing and variance-increasing mechanisms |
| Wu, S. P.-J., Straub, D. W., and Liang, T.-P. 2015. "How Information Technology Governance Mechanisms and Strategic Alignment Influence Organizational Performance: Insights from a Matched Survey of Business and IT Managers," *MIS Quarterly* (39:2), pp. 497-518. | "IT governance can be deployed via a mix of *structures, processes, and relational mechanisms*. Structures involve clearly defined roles and responsibilities and a set of IT/business committees such as IT steering committees and business strategy committees. Processes refer to formal processes of strategic decision making, planning, and monitoring for ensuring that IT policies are consistent with business needs … Finally, relational mechanisms, which include business/IT interaction and shared learning and communication, are crucial to the IT governance framework." (p. 502) | **Patterns:**<br>• Structural arrangements<br>• Formal processes<br>• Relational mechanisms |
| Schlosser, F., Beimborn, D., Weitzel, T., and Wagner, H.-T. 2015. "Achieving Social Alignment between Business and IT—An Empirical Evaluation of the Efficacy of IT Governance Mechanisms," *Journal of Information Technology* (30:2), pp. 119-135. | "IT governance pertains to the locus of IT decision making authority covering organizational issues regarding differentiation and the division of responsibilities on the one hand, and integration mechanisms on the other….We distinguish between formal integration mechanisms concerning the formal organization structure (e.g., liaison function) and formal coordination as part of the way processes are organized (e.g., regular meetings); and informal integration mechanisms concerning the development of network relationships by supporting working toward a common goal and increasing dependency among team members (e.g., cross-functional events and cooperative activities)." (p. 121) | **Patterns:**<br>• Structural arrangements<br>• Formal processes<br>• Relational mechanisms |

**Table A1. Review of IT Governance Literature (Continued)**

| Study | Definition of IT Governance | Dimension of IT Governance |
|---|---|---|
| Tiwana, A., and Kim, S. K. 2015. "Discriminating IT Governance," *Information Systems Research* (26:4), pp. 656-674. | "IT app governance refers to how decision rights for IT apps are divvied between the line functions and the IT unit…IT infrastructure governance refers to how decision rights for IT infrastructure decisions are divvied between the line functions and IT unit." (p. 660) | **Focus**:<br>• IT applications<br>• IT infrastructure<br>**Scope**:<br>• Business/line functions<br>• IT unit/function<br>**Patterns**:<br>• Structural arrangements |
| Constantinides, P., and Barrett, M. 2015. "Information Infrastructure Development and Governance as Collective Action," *Information Systems Research* (26:1), pp. 40-56. | A polycentric approach to governing information infrastructures "is characterized by multiple governing units at differing scales rather than a monocentric unit. Each unit within a polycentric system exercises considerable independence to make norms and rules within a specific domain (such as a group of primary care centers, a regional government, or a national government). This translates into the nesting of governance into a broader network of institutions, in which governance is broken down into a series of layers. This distributes decision making across all stakeholders, with each layer dealing with similar types of issues but at a progressively larger scale and lesser level of detail." (p. 52) | **Focus**:<br>• Developing a shared information infrastructure<br>**Scope**:<br>• Multiple units/stakeholders at differing scales/layers of a complex system<br>**Patterns**:<br>• A nested structure of distributed decision-making authorities across stakeholders and layers of the system |
| Dawson, G. S., Denford, J. S., Williams, C. K., Preston, D., and Desouza, K. C. 2016. "An Examination of Effective IT Governance in the Public Sector Using the Legal View of Agency Theory," *Journal of Management Information Systems* (33:4), pp. 1180-1208. | "IT governance…concentrates on transforming information technology to meet the current and future demands of the business as well as the needs of the business customer…how organizations define accountability for IT governance and how well they formalize and communicate it." (p. 1183) | **Patterns:**<br>• Structural arrangements<br>• Formal processes<br>• Relational mechanisms |
| Svahn, F., Mathiassen, L., and Lindgren, R. 2017. "Embracing Digital Innovation in Incumbent Firms: How Volvo Cars Managed Competing Concerns," *MIS Quarterly* (41:1), pp. 239-253. | *"Innovation governance: control versus flexibility*. Firms must develop managerial practices and systems that recognize creativity and differentiation at the expense of prevailing authority structures and integration arrangements. Accordingly, managers must negotiate a balance between control and flexibility to afford exploration of digital options." (p. 240) | **Focus**:<br>• Managerial practices<br>• Systems<br>**Scope**:<br>• Cross-functional and interorganizational IT/business app development groups<br>**Patterns**:<br>• Balancing integration/control and flexibility/autonomy |
| Benaroch, M., and Chernobai, A. 2017. "Operational IT Failures, IT Value Destruction, and Board-Level IT Governance Changes," *MIS Quarterly* (41:3), pp. 729-762. | "IT governance is…an integral part of enterprise governance and consists of the leadership and organizational structures and processes that ensure that the organization's IT sustains and extends the organization's strategies and objectives." (p. 730) | **Patterns:**<br>• Structural arrangements<br>• Formal processes<br>• Relational mechanisms |
| Huber, T. L., Kude, T., and Dibbern, J. 2017. "Governance Practices in Platform Ecosystems: Navigating Tensions Between Cocreated Value and Governance Costs," *Information Systems Research* (28:3), pp. 563-584. | "Governance is seen as a problem of designing effective ecosystem-wide mechanisms….In the context of enterprise software, such ecosystem-wide governance mechanisms include *rules* that uniformly regulate how and under what conditions complementors are granted access to the platform owner's resources as well as *values* that are supposed to serve as the guiding principles for cocreating value with complementors in the ecosystem." (p. 563) | **Patterns**:<br>• Rules regulating access to platform resources<br>• Values guiding cocreation of value |

# Appendix B

## Meta-Theoretical Anchoring in Our Study

Grounded theory work must be done with an "open mind" but not with an "empty head" (Dey 1999).[1] Accordingly, a key guideline for grounded theory studies in IS suggests the need to "scale up" the emerging "low level theory" by relating it to the broader literature to increase its generalizability (Urquhart et al. 2010, p. 369). The focus is on "type ET generalizability," that is, "generalizing from description to theory" (Lee and Baskerville 2003, p. 235). To elevate what initially is a more descriptive grounded theory to a mid-range level (a substantive grounded theory) and to sharpen researchers' theoretical sensitivity (Glaser 1978), it is common to utilize a meta-theoretical lens (e.g., Gregory et al. 2015; Levina and Vaast 2008; Orlikowski 1993).

In this paper, we followed best practice recommendations for grounded theory research by (1) identifying and examining a novel yet poorly understood phenomenon (i.e., IT consumerization) by employing key principles and tools of engaged scholarship (Van de Ven 2007), case study research (Gerring 2007), and grounded theory (Glaser and Strauss 1967); (2) establishing a relationship between our emerging, initially more descriptive, theory and a substantive scholarly conversation (i.e., IT governance); and (3) drawing upon a meta-theoretical lens (i.e., punctuated equilibrium theory) to define the target contribution and achieve generalizability.

A defining moment in this process was the identification of the punctuated equilibrium theory (Gersick 1991) as a meta-theoretical lens to increase the generalizability of our explanation for how and why IT consumerization transforms IT governance. This process of meta-theoretical anchoring, in our case, was greatly aided by the valuable feedback provided by the review team.

Applying the heuristic of "immersing deeply" (into the field) yet "reading broadly" (across the IS and neighboring disciplines), we had chosen several competing meta-theoretical lenses according to the following criteria. All the evaluated lenses had to be of a "process meta-theory" type and focus on organizational change (Van de Ven and Poole 1995) insofar as the goal of our study was explaining the transformation of IT governance. In addition, the type of IS theory we aimed to develop was a theory for explaining. As suggested by Shirley Gregor, such theories typically focus on how and why phenomena occur, providing "explanations of how, when, where, and why events occurred … giving rise to process-type theory" (Gregor 2006, p. 624).

The theories we ended up considering and contrasting were (1) situated change perspective (e.g., Orlikowski 1996), (2) punctuated equilibrium theory (e.g., Guillemette and Paré 2012), and (3) institutional theory (e.g., Mignerat and Rivard 2009, 2012). Besson and Rowe's (2012) valuable overview of the alternative theoretical perspectives concerning IT-related organizational transformation provided additional guidance. Finally, prompted by the reviewer feedback, we also considered the dialectics theory (Benson 1977).

At the end of the evaluation process, we chose the punctuated equilibrium theory as a meta-theoretical lens that fit the patterns emerging from our data best. Several considerations contributed to this decision. First, transformation of IT governance in our case followed a "discontinuous, fast, and systemic" pathway (Besson and Rowe 2012, p. 104), pointing to a punctuated rather than situated, dialectical, or other type of evolutionary organizational change trajectory. The revolutionary transformation from functional IT governance to platform-based governance in our case unfolded in a relatively short time period of approximately 5 years, while the original equilibrium period of functional IT governance stretched over multiple decades, dating back to the historical establishment of the IT function at GlobalBank in the late 1970s.

Second, our emerging findings concerning the IT governance framework at GlobalBank supported by a comprehensive literature review (see Table A1) highlighted the usefulness of analyzing IT governance in terms or archetypes or "ideal profiles" (Greenwood and Hinings 1993). We defined three core dimensions of IT governance, *viz.*, focus, scope, and patterns, that captured much of the variation concerning IT governance considerations in our case study data as well as in the extant literature. The concept of archetype is closely linked to the punctuated equilibrium theory (Ambos and Birkinshaw 2010) in that incremental change is operationalized as relative minor shifts in isolated elements of the archetype, while revolutionary change encompasses deep shifts along all archetype dimensions (see Guillemette and Paré 2012; Sabherwal et al. 2001). Applying this lens, we were able to see that in our case the change was clearly "revolutionary" for we observed profound shifts along all three dimensions of the IT governance framework. This further solidified confidence in choosing punctuated equilibrium theory as a meta-lens with the best fit.

Finally, studies drawing on the punctuated equilibrium theory often identify "perception transformation" (i.e., shifts in shared beliefs, understandings, and interpretive schemas of the key stakeholders) as an important condition that sets off revolutionary transformation of the

[1]We would like to thank an anonymous reviewer for pointing out this important consideration to us.

organization's deep structure (Ambos and Birkinshaw 2010; Guillemette and Paré 2012; Sabherwal et al. 2001). Our emerging grounded category of everyone's IT similarly pointed to the importance of shared beliefs and the ensuing enactment of these beliefs by customers and employees in creating a collective cognitive dissonance among managers at GlobalBank and, ultimately, leading to a radical IT governance transformation. Once again, adopting the punctuated equilibrium lens provided us with a significant lever to increase generalizability of our emerging findings.

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