

Designing a Model of Ambidextrous Leadership Capabilities for Organizational Evolution and Renewal

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Abstract

This study aimed to design a qualitative model of ambidextrous leadership capabilities that explains how leaders balance exploration and exploitation to support organizational evolution and renewal. This qualitative study was conducted using an inductive grounded theory approach. Participants included 23 senior and middle managers, organizational development consultants, innovation managers, and human resource executives working in large and medium-sized organizations in Tehran. Participants were selected through purposive and theoretical sampling based on their direct experience with organizational change, innovation, restructuring, and strategic renewal. Data were collected through semi-structured interviews lasting 45–75 minutes. Sampling continued until theoretical saturation was achieved after the twenty-first interview, and two additional interviews were conducted to confirm category stability. Interviews were transcribed verbatim and analyzed using open, axial, and selective coding with the support of NVivo software. The analysis produced five main categories: paradoxical strategic sensemaking, exploratory capability activation, exploitative discipline and operational anchoring, temporal switching and boundary management, and renewal-oriented learning governance. These categories formed a core category labeled dynamic orchestration of exploration–exploitation tensions. The findings showed that ambidextrous leadership is not merely the simultaneous use of flexible and controlling behaviors, but a higher-order capability through which leaders interpret contradictions, activate experimentation, preserve operational reliability, switch between divergent and convergent modes, and institutionalize learning for renewal. The proposed model suggests that organizational evolution depends on leaders' capacity to manage the paradox between continuity and change. Ambidextrous leadership capabilities enable organizations to pursue innovation without losing efficiency and to maintain operational discipline without suppressing renewal. The model provides a practical framework for leadership development, succession planning, organizational design, and strategic transformation in dynamic environments.

Keywords: Ambidextrous leadership; organizational ambidexterity; organizational renewal; exploration and exploitation; grounded theory; leadership capabilities; organizational evolution.

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1. Introduction

Organizations increasingly operate in environments characterized by technological disruption, market turbulence, institutional uncertainty, and shifting stakeholder expectations. In such conditions, survival depends not only on the ability to maintain current performance but also on the capacity to renew organizational assumptions, structures, routines, and strategic priorities. This dual requirement has directed scholarly attention toward organizational ambidexterity, a concept rooted in the distinction between exploration and exploitation. March (1991) argued that organizations must balance exploration, including search, experimentation, variation, and innovation, with exploitation, including refinement, efficiency, implementation, and execution. This distinction remains central to contemporary theories of organizational learning and strategic renewal because organizations that overemphasize exploration may suffer from instability, excessive experimentation, and weak



implementation, whereas organizations that overemphasize exploitation may become rigid, path dependent, and vulnerable to environmental change.

Ambidexterity is therefore a central capability for organizations seeking sustained performance and renewal. Organizational ambidexterity refers to the capacity to pursue exploratory and exploitative activities either simultaneously, sequentially, structurally, or contextually. Gibson and Birkinshaw (2004) conceptualized contextual ambidexterity as the behavioral capacity to demonstrate alignment and adaptability within a business unit. O'Reilly and Tushman (2004, 2013) emphasized the role of ambidextrous organizational designs that allow firms to protect exploratory units while maintaining integration with the core organization. Raisch and Birkinshaw (2008) and Raisch et al. (2009) further showed that ambidexterity is not a single structural choice but a complex organizational condition shaped by leadership, culture, structure, learning mechanisms, and strategic context. These studies suggest that ambidexterity is especially important for organizational evolution because renewal requires both discontinuous change and continuity of operational competence.

Although organizational ambidexterity has often been studied at the organizational or business-unit level, leadership is increasingly recognized as a critical mechanism through which ambidexterity becomes possible in practice. Leaders influence how organizations interpret environmental change, allocate resources, tolerate experimentation, preserve efficiency, and resolve tensions between competing demands. Rosing, Frese, and Bausch (2011) developed the theory of ambidextrous leadership by arguing that innovation requires leaders to switch between opening and closing behaviors. Opening behaviors increase variance in follower behavior by encouraging experimentation, autonomy, risk taking, and divergent thinking, whereas closing behaviors reduce variance by emphasizing goal clarity, discipline, monitoring, standardization, and implementation. In this view, ambidextrous leadership is not simply a combination of supportive and directive behaviors; it is the flexible and context-sensitive capacity to activate the type of behavior required by the innovation process at a specific moment.

The importance of ambidextrous leadership becomes clearer when organizational evolution is understood as an ongoing process rather than a discrete change event. Organizational renewal requires leaders to challenge existing mental models, create safe spaces for experimentation, and support learning from failure. At the same time, renewal cannot succeed unless new ideas are translated into routines, structures, metrics, and operational practices. This means that leaders must manage contradiction rather than eliminate it. Smith and Tushman (2005) argued that managing strategic contradictions requires paradoxical cognition, through which leaders accept and integrate competing demands instead of choosing one side of a tension. Similarly, paradox theory suggests that long-term organizational effectiveness depends on engaging persistent tensions such as stability and change, control and flexibility, short-term performance and long-term adaptation, and exploitation and exploration.

The literature on dynamic capabilities also supports the importance of leadership in organizational renewal. Teece, Pisano, and Shuen (1997) defined dynamic capabilities as the firm's ability to integrate, build, and reconfigure internal and external competences in response to changing environments. Later work on dynamic capabilities emphasizes sensing opportunities and threats, seizing opportunities, and transforming organizational assets and structures. Ambidextrous leadership can be interpreted as a leadership-level dynamic capability because it enables leaders to sense when exploration or exploitation is required, seize opportunities through resource allocation and decision making, and transform routines through learning and institutionalization. In this sense, ambidextrous leadership is not limited to interpersonal behavior; it also includes strategic, cognitive, relational, temporal, and structural capabilities.

Despite the growing literature, several gaps remain. First, much of the empirical research on ambidextrous leadership has focused on innovation outcomes, employee creativity, or innovative work behavior, while less attention has been paid to organizational evolution and renewal as broader transformation processes. Second, existing studies often conceptualize ambidextrous leadership through the binary distinction between opening and closing behaviors, but this may not fully capture the complex capabilities leaders need when organizations face simultaneous pressures for efficiency, agility, legitimacy, learning, and identity transformation. Third, limited qualitative research has examined how leaders themselves describe, interpret, and enact ambidextrous capabilities in real organizational contexts. Quantitative models are useful for testing relationships, but qualitative inquiry is needed to uncover the lived managerial logic, contextual conditions, and process mechanisms through which ambidextrous leadership supports renewal.

This gap is particularly important in emerging and transitional organizational contexts, where organizations often face resource constraints, bureaucratic routines, institutional uncertainty, and pressure to modernize. In such environments, leaders may not have the luxury of separating exploratory and exploitative activities into distinct units. Instead, they must create practical forms of ambidexterity within existing structures, limited budgets, and complex stakeholder expectations. Tehran-based organizations provide a relevant context for this inquiry because many organizations operate at the intersection of traditional managerial systems, digital transformation pressures, competitive uncertainty, and demands for organizational modernization. Leaders in such contexts must simultaneously preserve continuity, improve efficiency, respond to market shifts, and renew organizational capabilities.

Therefore, a qualitative model is needed to explain how ambidextrous leadership capabilities are formed and enacted in organizational evolution and renewal. Such a model can contribute to the literature by moving beyond a narrow behavioral view of ambidextrous leadership and by identifying the broader capability architecture through which leaders manage exploration–exploitation tensions. It can also provide practical guidance for organizations seeking to design leadership development programs, succession systems, transformation offices, innovation governance mechanisms, and renewal-oriented cultures. Accordingly, the present study aimed to design a model of ambidextrous leadership capabilities for organizational evolution and renewal.

2. Methods and Materials

This study used a qualitative grounded theory design to develop an inductive model of ambidextrous leadership capabilities for organizational evolution and renewal. Grounded theory was selected because the aim was not to test a predetermined model but to generate a conceptual explanation based on participants' experiences, interpretations, and managerial practices. The study followed an inductive logic consistent with grounded theory procedures, including simultaneous data collection and analysis, constant comparison, theoretical sampling, category development, and integration of categories around a core concept.

Participants were selected from senior and middle managers, human resource executives, innovation managers, organizational development specialists, and management consultants working in Tehran. The inclusion criteria were: at least five years of managerial or consulting experience, direct involvement in organizational change or renewal initiatives, experience with both operational improvement and innovation-oriented projects, and willingness to participate in a recorded interview. Participants with no direct experience of organizational

transformation, strategic renewal, or leadership development were excluded. Purposive sampling was used at the beginning of the study to identify information-rich participants, and theoretical sampling was then used to refine emerging categories. In total, 23 participants took part in the study. Theoretical saturation was reached after 21 interviews, when no substantially new categories emerged, and two additional interviews were conducted to verify the stability and conceptual completeness of the findings.

Data were collected through semi-structured interviews. The interview protocol was designed to elicit participants' experiences with leadership during organizational evolution, renewal, innovation, restructuring, and operational transformation. The main interview questions focused on how leaders balance innovation and efficiency, how they decide when to encourage experimentation or enforce discipline, what capabilities are required for leading renewal, how organizations respond to contradictions between current performance and future adaptation, and what barriers prevent leaders from acting ambidextrously. Follow-up questions were used to clarify meanings, obtain examples, and explore emerging concepts. Each interview lasted between 45 and 75 minutes. Interviews were conducted in a private setting or through secure online platforms, depending on participant availability. All interviews were audio-recorded with participant consent and transcribed verbatim. Field notes were written after each interview to capture contextual impressions, analytic insights, and early theoretical ideas.

Data were analyzed using open, axial, and selective coding with the support of NVivo software. In the open coding stage, interview transcripts were read line by line, and initial codes were assigned to meaningful units of data. Similar codes were then compared and grouped into preliminary concepts. In the axial coding stage, relationships among concepts were examined by identifying conditions, actions/interactions, strategies, and consequences. This stage helped organize the data into broader categories related to ambidextrous leadership capabilities. In the selective coding stage, the main categories were integrated around a core category that explained the central process identified in the data. Constant comparison was used throughout the analysis to compare codes within and across interviews. Memo writing was used to document theoretical reflections, category definitions, and emerging relationships among concepts.

To enhance trustworthiness, several strategies were used. Credibility was strengthened through member checking with selected participants, prolonged engagement with the data, and peer review of the coding structure. Transferability was supported by providing thick descriptions of participants, context, and categories. Dependability was enhanced through an audit trail that documented sampling decisions, coding changes, and analytic memos. Confirmability was supported by reflexive memoing and by maintaining a clear distinction between participant statements and researcher interpretations. Ethical considerations included informed consent, voluntary participation, confidentiality, anonymization of participant identities, and the right to withdraw at any stage.

3. Findings and Results

The participants included 23 individuals from Tehran-based organizations. Of these, 15 participants were male (65.2%) and 8 were female (34.8%). Regarding organizational role, 7 participants were senior executives (30.4%), 6 were middle managers (26.1%), 4 were human resource or organizational development managers (17.4%), 3 were innovation or digital transformation managers (13.0%), and 3 were management consultants (13.0%). In

terms of work experience, 5 participants had 5–10 years of experience (21.7%), 9 had 11–15 years (39.1%), and 9 had more than 15 years (39.1%). Regarding educational level, 6 participants held a bachelor's degree (26.1%), 14 held a master's degree (60.9%), and 3 held a doctoral degree (13.0%). Participants represented organizations in technology, finance, manufacturing, consulting, retail, and service sectors. This diversity enabled the study to capture a broad range of leadership experiences related to organizational evolution and renewal.

The analysis produced a core category labeled **dynamic orchestration of exploration–exploitation tensions**. This core category refers to the leader's capability to interpret, activate, balance, switch, and institutionalize contradictory demands during organizational renewal. Five main categories formed the proposed model of ambidextrous leadership capabilities.

The first category was paradoxical strategic sensemaking. Participants emphasized that ambidextrous leaders do not view stability and change as mutually exclusive choices. Instead, they interpret organizational renewal as a paradoxical process in which leaders must protect the organization's current value-creating logic while simultaneously questioning its future relevance. This capability involved environmental scanning, reframing threats as learning opportunities, communicating the need for renewal without creating panic, and helping employees understand why both operational discipline and experimentation are necessary. One participant stated, "A leader who only talks about innovation creates anxiety, and a leader who only talks about efficiency creates stagnation. The difficult work is explaining why we need both at the same time." Another participant noted, "In renewal projects, the first challenge is mental. People ask whether we are changing because we failed. The leader must redefine change as maturity, not failure." This category shows that ambidextrous leadership begins with cognitive and interpretive capability. Before leaders can balance exploration and exploitation behaviorally, they must construct a shared meaning system that legitimizes contradiction and reduces defensive reactions.

The second category was exploratory capability activation. Participants described ambidextrous leaders as individuals who intentionally create conditions for experimentation, idea generation, external learning, and opportunity discovery. This capability included encouraging employees to question established routines, supporting pilot projects, connecting teams to external knowledge sources, tolerating intelligent failure, and protecting early-stage ideas from premature evaluation. Participants emphasized that exploration requires psychological safety and resource protection because new ideas are often fragile in efficiency-oriented organizations. One innovation manager explained, "If every new idea is immediately judged by current profitability, nothing new will survive. Leaders must give ideas a temporary protected space." Another participant stated, "Exploration starts when people feel they are allowed to say, 'our current method may not be enough anymore.'" This category indicates that renewal depends on leaders' ability to increase behavioral variance, stimulate divergent thinking, and create space for experimentation. However, participants also warned that exploration without boundaries may produce confusion, fragmented initiatives, and resource waste.

The third category was exploitative discipline and operational anchoring. Participants argued that ambidextrous leaders must also preserve efficiency, accountability, standardization, and implementation discipline. Renewal was not described as abandoning the existing organization but as upgrading it. Leaders therefore needed to translate exploratory ideas into processes, assign responsibilities, define performance indicators, monitor progress, and integrate successful innovations into daily routines. One senior manager stated, "Innovation becomes organizational renewal only when it enters the operating system of the company. Otherwise, it remains a presentation." Another participant explained, "After the creative phase, the leader must close the loop. Who owns

the idea? What is the deadline? What routine must change? Without this, people become tired of transformation slogans.” This category shows that exploitative capability is not the enemy of renewal; rather, it is the mechanism through which renewal becomes sustainable. Participants viewed operational anchoring as essential for preventing innovation fatigue and ensuring that change produces visible organizational outcomes.

The fourth category was temporal switching and boundary management. Participants emphasized that ambidextrous leadership requires knowing when to open and when to close, where to allow freedom and where to impose discipline, and which organizational boundaries should be flexible or protected. This capability included timing, sequencing, prioritization, and contextual judgment. Leaders needed to recognize whether a team was in a discovery phase, experimentation phase, implementation phase, or stabilization phase. One participant stated, “The same leadership behavior can be useful or damaging depending on timing. If you control too early, creativity dies. If you control too late, execution dies.” Another participant explained, “Ambidexterity is not doing everything at once. It is knowing which logic should dominate in which moment.” Boundary management also involved separating exploratory initiatives from routine operations when necessary, while maintaining strategic integration between them. This category suggests that ambidextrous leadership is a dynamic capability rather than a static trait. Its effectiveness depends on leaders’ ability to switch modes without confusing employees or creating inconsistent expectations.

The fifth category was renewal-oriented learning governance. Participants described the most mature form of ambidextrous leadership as the ability to institutionalize learning so that renewal becomes a repeatable organizational capability rather than a temporary project. This involved creating feedback loops, after-action reviews, cross-functional learning forums, knowledge-sharing routines, leadership development systems, and mechanisms for scaling successful experiments. One organizational development manager stated, “The real test is whether the organization learns from each renewal cycle. If learning stays in individuals’ heads, the organization repeats the same mistakes.” Another participant said, “Ambidextrous leaders build systems where lessons from experiments become policies, skills, and routines.” This category shows that organizational evolution requires governance mechanisms that connect exploration and exploitation over time. Leaders must not only support innovation and execution but also ensure that knowledge circulates, becomes embedded, and strengthens future renewal capacity.

4. Discussion and Conclusion

The present study aimed to design a model of ambidextrous leadership capabilities for organizational evolution and renewal. The findings identified five main categories: paradoxical strategic sensemaking, exploratory capability activation, exploitative discipline and operational anchoring, temporal switching and boundary management, and renewal-oriented learning governance. These categories were integrated around the core category of dynamic orchestration of exploration–exploitation tensions. Overall, the results suggest that ambidextrous leadership is a multidimensional capability system through which leaders interpret contradictions, activate innovation, maintain operational discipline, switch between competing logics, and institutionalize learning. This finding extends the classical view of ambidextrous leadership as the flexible use of opening and closing behaviors by showing that renewal-oriented ambidexterity also requires cognitive, temporal, structural, and governance capabilities.

The first finding, paradoxical strategic sensemaking, shows that ambidextrous leadership begins with the interpretation of contradiction. Leaders in renewal contexts must help organizational members understand why exploration and exploitation are both necessary. This aligns with March's (1991) foundational argument that organizations face persistent tension between exploration and exploitation. It also supports Smith and Tushman's (2005) view that leaders must develop paradoxical cognition to manage strategic contradictions. The present findings suggest that paradoxical sensemaking is especially important during organizational renewal because employees may interpret change as criticism of the past or as a threat to professional identity. Ambidextrous leaders reduce this anxiety by framing renewal as a process of continuity through transformation. This interpretation also resonates with paradox theory, which emphasizes that competing demands should be engaged simultaneously rather than resolved through simple trade-offs. Therefore, the study contributes to leadership theory by identifying sensemaking as a pre-behavioral capability that prepares the organization to accept ambidextrous action.

The second finding, exploratory capability activation, confirms the importance of opening leadership behaviors in renewal. Participants described leaders as enablers of experimentation, external learning, risk taking, and idea development. This supports Rosing et al. (2011), who argued that opening behaviors increase variance in follower behavior and are essential for exploration and innovation. The finding is also consistent with Gibson and Birkinshaw's (2004) concept of adaptability, which refers to the capacity to reconfigure activities in response to changing demands. However, the present study adds that exploration is not only a behavioral climate but also a protected organizational condition. Participants emphasized that early-stage ideas require temporary insulation from dominant efficiency metrics. This insight is compatible with O'Reilly and Tushman's (2004) argument that exploratory initiatives often need differentiated spaces to survive. In the context of organizational renewal, exploratory leadership therefore includes not only encouraging creativity but also defending fragile initiatives against premature operational judgment.

The third finding, exploitative discipline and operational anchoring, shows that renewal requires closing behaviors and implementation discipline. This finding supports Rosing et al.'s (2011) distinction between opening and closing leadership behaviors. While opening behaviors stimulate creativity, closing behaviors support implementation, monitoring, goal clarity, and efficiency. The present findings indicate that organizational renewal fails when leaders romanticize innovation but neglect operational embedding. Participants repeatedly stated that ideas become renewal only when they are converted into routines, responsibilities, metrics, and structures. This aligns with the dynamic capabilities perspective, according to which organizations must not only sense opportunities but also seize and transform them through reconfiguration of assets and routines (Teece et al., 1997). It also supports O'Reilly and Tushman's (2013) claim that ambidexterity requires both exploratory adaptation and exploitative performance. Therefore, exploitative discipline should not be treated as resistance to renewal; it is a necessary condition for converting change into organizational capability.

The fourth finding, temporal switching and boundary management, highlights the dynamic nature of ambidextrous leadership. Participants emphasized that leaders must know when to expand behavioral variance and when to reduce it. This finding directly supports the central argument of ambidextrous leadership theory: effective leaders flexibly switch between opening and closing behaviors depending on the phase of innovation and the needs of followers (Rosing et al., 2011). However, the present study extends this theory by showing that switching is not only interpersonal but also temporal and structural. Leaders must manage boundaries between

exploratory projects and operational units, decide when integration is useful and when separation is necessary, and sequence renewal activities so that experimentation and implementation do not undermine each other. This finding is consistent with Raisch et al. (2009), who argued that ambidexterity involves balancing differentiation and integration. In practical terms, leaders must avoid both premature convergence and endless divergence. Ambidextrous leadership is therefore a timing-sensitive capability that depends on contextual judgment.

The fifth finding, renewal-oriented learning governance, indicates that ambidextrous leadership becomes sustainable only when learning is institutionalized. Participants argued that renewal should not remain dependent on heroic individual leaders or isolated transformation projects. Instead, organizations need feedback mechanisms, cross-functional learning forums, knowledge repositories, and routines for scaling successful experiments. This finding aligns with organizational learning theory and with March's (1991) emphasis on the relationship between learning, exploration, and exploitation. It also supports the dynamic capabilities literature, which views renewal as a process of repeated sensing, seizing, and transforming rather than one-time adaptation (Teece et al., 1997). The present study contributes by showing that ambidextrous leaders act as learning governors: they connect experimentation to reflection, reflection to knowledge, and knowledge to new routines. This governance function is especially important in organizations where change projects often disappear after leadership turnover or resource reallocation.

Taken together, the findings suggest that ambidextrous leadership capabilities form an integrated model for organizational evolution and renewal. The model begins with paradoxical strategic sensemaking, through which leaders create a shared understanding of why continuity and change must coexist. It then moves to exploratory capability activation, where leaders stimulate experimentation and opportunity discovery. These exploratory processes are balanced by exploitative discipline and operational anchoring, through which leaders convert ideas into accountable routines and measurable outcomes. Temporal switching and boundary management connect exploration and exploitation by helping leaders decide when to separate, integrate, expand, or converge activities. Finally, renewal-oriented learning governance institutionalizes the lessons of renewal so that ambidexterity becomes an organizational capability rather than a temporary leadership style. This model contributes to the literature by positioning ambidextrous leadership as a higher-order capability architecture that supports organizational renewal across cognitive, behavioral, operational, temporal, and learning dimensions.

The findings also have contextual significance. In Tehran-based organizations, participants described renewal as occurring under constraints such as limited resources, bureaucratic structures, uncertainty, and pressure for modernization. These conditions make ambidextrous leadership especially important because organizations cannot rely solely on structural separation or large-scale innovation units. Instead, leaders must create ambidexterity within existing organizational realities. This supports the idea that contextual ambidexterity may be particularly valuable where formal structural solutions are difficult to implement. Leaders must therefore develop the ability to create local spaces of experimentation while maintaining organizational alignment and operational reliability. The proposed model provides a practical framework for such contexts because it does not assume abundant resources or ideal organizational designs.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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Conflict of Interest

The authors report no conflict of interest.

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References

- Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, N. V. (2013). Digital business strategy: Toward a next generation of insights. *MIS Quarterly*, 37(2), 471–482. <https://doi.org/10.25300/MISQ/2013/37.2.03>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Cascio, W. F., & Montealegre, R. (2016). How technology is changing work and organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 3, 349–375. <https://doi.org/10.1146/annurev-orgpsych-041015-062352>
- Corbin, J., & Strauss, A. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (4th ed.). SAGE Publications.
- Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350–383. <https://doi.org/10.2307/2666999>
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82. <https://doi.org/10.1177/1525822X05279903>
- Kane, G. C., Palmer, D., Phillips, A. N., Kiron, D., & Buckley, N. (2015). *Strategy, not technology, drives digital transformation*. MIT Sloan Management Review and Deloitte University Press.
- Kane, G. C., Phillips, A. N., Copulsky, J. R., & Andrus, G. R. (2019). *The technology fallacy: How people are the real key to digital transformation*. MIT Press.
- Leonardi, P. M. (2011). When flexible routines meet flexible technologies: Affordance, constraint, and the imbrication of human and material agencies. *MIS Quarterly*, 35(1), 147–167. <https://doi.org/10.2307/23043493>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.
- Orlikowski, W. J., & Scott, S. V. (2008). Sociomateriality: Challenging the separation of technology, work and organization. *The Academy of Management Annals*, 2(1), 433–474. <https://doi.org/10.1080/19416520802211644>
- Uhl-Bien, M., & Arena, M. (2018). Leadership for organizational adaptability: A theoretical synthesis and integrative framework. *The Leadership Quarterly*, 29(1), 89–104. <https://doi.org/10.1016/j.leaqua.2017.12.009>
- Uhl-Bien, M., Marion, R., & McKelvey, B. (2007). Complexity leadership theory: Shifting leadership from the industrial age to the knowledge era. *The Leadership Quarterly*, 18(4), 298–318. <https://doi.org/10.1016/j.leaqua.2007.04.002>
- Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Qi, J., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122, 889–901. <https://doi.org/10.1016/j.jbusres.2019.09.022>
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 28(2), 118–144. <https://doi.org/10.1016/j.jsis.2019.01.003>
- Warner, K. S. R., & Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long Range Planning*, 52(3), 326–349. <https://doi.org/10.1016/j.lrp.2018.12.0>