

Evolutionary Pathways of Management Systems: A Qualitative Comparative Study of Traditional and Agile Organizations

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Abstract

This study aimed to explore how management systems evolve differently in traditional and agile organizations by comparing their structural logics, decision-making routines, learning mechanisms, leadership practices, and adaptation pathways. This qualitative comparative study was conducted among managers and organizational experts working in traditional and agile-oriented organizations in Tehran. Using purposive and maximum-variation sampling, 28 participants were recruited, including 14 participants from traditional organizations and 14 from organizations with agile management structures. Data were collected through semi-structured interviews lasting between 45 and 75 minutes. Theoretical saturation was achieved after the twenty-fourth interview, and four additional interviews were conducted to confirm conceptual adequacy. Interviews were audio-recorded, transcribed verbatim, and analyzed using thematic analysis supported by NVivo software. Coding proceeded through open coding, axial categorization, constant comparison, and iterative theme refinement. Trustworthiness was enhanced through member checking, peer debriefing, audit trail documentation, and maximum variation in participant selection. The analysis produced five main categories: structural reconfiguration from hierarchy to networked coordination, transformation of decision-making from authorization-based control to distributed responsiveness, evolution of learning routines from periodic correction to continuous experimentation, leadership role transition from command supervision to enabling facilitation, and emergence of hybrid management pathways that combine procedural stability with adaptive flexibility. Traditional organizations were characterized by formal authority, sequential planning, documentation-heavy control, and risk avoidance, whereas agile organizations emphasized cross-functional collaboration, iterative planning, customer proximity, rapid feedback, and team-level autonomy. However, the findings also showed that agile evolution was not a simple replacement of hierarchy; rather, successful organizations developed hybrid systems that preserved necessary governance while increasing adaptability. Management system evolution is best understood as a gradual reconfiguration of coordination, control, learning, and leadership routines rather than as a linear shift from bureaucracy to agility. Agile organizations do not eliminate structure; they redesign structure around speed, learning, and distributed accountability. The study contributes a qualitative model of evolutionary management pathways and offers practical implications for organizations seeking to balance operational discipline with adaptive capacity.

Keywords: management systems; agile organizations; traditional organizations; organizational evolution; qualitative comparative study; adaptive management; Tehran

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1. Introduction

Management systems have historically evolved in response to changes in technology, market uncertainty, organizational scale, labor specialization, and institutional expectations. Traditional management systems were largely designed to solve problems of coordination, predictability, control, and efficiency in relatively stable environments. Their characteristic features include hierarchical authority, formalized procedures, centralized



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decision-making, vertical communication, job specialization, and standard operating routines. Classical organization theory treated structure as a central mechanism through which organizations divide labor and coordinate collective action, and this concern remains central to contemporary debates on organizational design. Mintzberg's work on organizational structuring conceptualized organizations through differentiated components, coordination mechanisms, and design parameters, demonstrating that structure is not merely an administrative arrangement but a logic through which organizations process complexity (Mintzberg, 1979). Similarly, contingency theory emphasized that effective organizations must align their internal structures with environmental uncertainty, technological complexity, and task interdependence (Lawrence & Lorsch, 1967). These perspectives remain important because even organizations that adopt agile methods cannot function without some form of coordination, accountability, and integration.

A foundational distinction in the literature is the contrast between mechanistic and organic management systems. Burns and Stalker argued that mechanistic systems are more compatible with stable conditions because they rely on specialization, formal authority, and vertical control, whereas organic systems are more suitable for changing conditions because they depend on lateral communication, flexible roles, and distributed expertise (Burns & Stalker, 1961). This distinction provides an essential theoretical basis for comparing traditional and agile organizations. Traditional organizations are not necessarily ineffective; rather, they are optimized for environments where reliability, compliance, standardization, and risk containment are dominant priorities. In contrast, agile organizations are designed for environments where rapid change, customer feedback, uncertainty, and innovation require faster cycles of sensing, deciding, and acting. The key issue, therefore, is not whether hierarchy is inherently inferior to agility, but how different management systems evolve under different environmental pressures.

The emergence of agile management represents one of the most influential transformations in contemporary organizational practice. Although agile methods originated primarily in software development, their principles have expanded into project management, product development, innovation management, public administration, banking, manufacturing, and digital transformation contexts. Agile approaches emphasize iterative work cycles, empowered teams, customer collaboration, transparency, experimentation, and responsiveness to change. Rigby, Sutherland, and Takeuchi described agile as a management approach that moved beyond software and influenced broader organizational practices by improving speed, quality, and team motivation when implemented under suitable conditions (Rigby et al., 2016). Systematic reviews also show that agile methods have been examined not only as technical development practices but also as organizational routines that reshape coordination, communication, leadership, and decision-making (Dybå & Dingsøyr, 2008; Dikert et al., 2016).

Despite the growing popularity of agile management, the transition from traditional to agile systems remains complex and contested. Agile transformation often encounters resistance because it challenges deeply embedded assumptions about authority, planning, accountability, performance measurement, and managerial identity. Boehm and Turner identified several management challenges when agile processes are implemented in traditional organizations, including conflicts between lightweight agile practices and established business processes, development routines, and people-management expectations (Boehm & Turner, 2005). This suggests that agile transformation is not simply a methodological adoption but a deeper organizational change process. Agile routines may be introduced through stand-up meetings, sprint planning, retrospectives, or cross-functional teams, but the

effectiveness of these routines depends on whether underlying power structures, decision rights, cultural norms, and learning mechanisms also change.

Organizational evolution can also be understood through the tension between exploitation and exploration. March conceptualized exploitation as refinement, efficiency, implementation, and execution, while exploration involves search, experimentation, variation, and discovery (March, 1991). Traditional management systems often privilege exploitation because they reward reliability, procedural discipline, and predictable performance. Agile systems, by contrast, increase exploratory capacity through short feedback loops, iterative experimentation, and rapid adjustment. However, organizations cannot survive through exploration alone. They must also maintain operational discipline, institutional legitimacy, and resource efficiency. This creates the central evolutionary challenge: organizations must learn how to preserve the benefits of traditional systems while developing adaptive capabilities associated with agility.

Dynamic capabilities theory provides another useful lens for examining management system evolution. Teece, Pisano, and Shuen argued that organizations operating in changing environments need capabilities that allow them to integrate, build, and reconfigure internal and external competences (Teece et al., 1997). Eisenhardt and Martin further conceptualized dynamic capabilities as identifiable organizational and strategic routines through which firms reconfigure resources, make strategic decisions, and adapt to changing conditions (Eisenhardt & Martin, 2000). From this perspective, agile management systems can be interpreted as capability-building architectures. Their value lies not only in specific agile ceremonies but in the development of recurring routines for sensing change, integrating knowledge, reallocating resources, and learning from feedback. Yet traditional organizations may also possess valuable capabilities, particularly in governance, compliance, risk management, and operational reliability.

Recent debates on organizational agility show that agility is not a single practice or structure but a multidimensional organizational capacity. Walter's systematic review noted that organizational agility has often been conceptually ambiguous, requiring clearer theorization of its dimensions and mechanisms (Walter, 2021). More recent reviews similarly suggest that agility is associated with performance, innovation, responsiveness, and digital transformation, but that its effects depend on contextual conditions, leadership, culture, and implementation quality (Nguyen et al., 2025). This is particularly important for organizations in emerging economies and urban business environments such as Tehran, where firms may face technological turbulence, regulatory uncertainty, resource constraints, and strong institutional expectations simultaneously. In such contexts, management system evolution is rarely a clean transition from one ideal type to another; instead, organizations often develop hybrid configurations that combine formal hierarchy with agile routines.

The present study addresses this gap by qualitatively comparing traditional and agile organizations in Tehran. Rather than treating agility as a universal best practice, the study explores how participants experience and interpret the evolution of management systems in real organizational settings. It focuses on five interrelated dimensions: structure, decision-making, learning, leadership, and hybridization. By comparing traditional and agile organizations, the study seeks to clarify how management systems evolve, what tensions emerge during transformation, and which organizational mechanisms support adaptive capacity. Therefore, the aim of this study was to explore the evolutionary pathways of management systems through a qualitative comparative analysis of traditional and agile organizations in Tehran.

2. Methods and Materials

This study employed a qualitative comparative design to explore how management systems evolve across traditional and agile organizations. A qualitative design was appropriate because the purpose of the study was not to test predetermined hypotheses but to understand participants' lived managerial experiences, interpretive meanings, and organizational narratives regarding structure, coordination, decision-making, and adaptation. The comparative logic of the study enabled the researcher to identify similarities and differences between two organizational forms: traditional organizations characterized by hierarchical authority, formalized procedures, and centralized planning, and agile organizations characterized by team autonomy, iterative work cycles, cross-functional coordination, and continuous feedback.

The study population consisted of managers, senior experts, project leaders, HR specialists, organizational development consultants, and team coordinators working in Tehran-based organizations. Participants were selected through purposive sampling and maximum-variation sampling to ensure diversity in organizational type, industry, managerial level, and professional experience. The final sample included 28 participants. Fourteen participants were recruited from traditional organizations, including manufacturing, financial services, public-sector-affiliated service organizations, and large administrative firms. Fourteen participants were recruited from agile-oriented organizations, including technology companies, digital service firms, product-development units, and organizations that had implemented agile project management or cross-functional team structures. Inclusion criteria were having at least five years of professional experience, at least two years of managerial or supervisory responsibility, direct familiarity with organizational decision-making processes, and willingness to participate in an audio-recorded interview. Participants who lacked direct experience with management system routines or who could not provide sufficiently detailed organizational examples were excluded.

Theoretical saturation guided the final sample size. After the twenty-fourth interview, no substantially new codes emerged regarding the main categories of management system evolution. Four additional interviews were conducted to confirm saturation, refine category boundaries, and strengthen the comparative interpretation. The final sample consisted of 18 men and 10 women. In terms of organizational affiliation, 14 participants worked in traditional organizations and 14 in agile-oriented organizations. Regarding position, 9 participants were senior managers, 8 were middle managers, 5 were project or product managers, 3 were HR or organizational development specialists, and 3 were senior technical or operational experts. Participants' professional experience ranged from 6 to 24 years, with most participants having between 10 and 15 years of experience. Their educational backgrounds included management, industrial engineering, information technology, business administration, economics, and organizational psychology.

Data were collected through semi-structured interviews. This method was selected because it provided sufficient structure to compare participants' responses across organizations while allowing flexibility to explore emergent issues in depth. The interview guide was developed based on the literature on organizational structure, agile management, dynamic capabilities, organizational learning, and management system transformation. The main interview questions focused on participants' perceptions of organizational structure, decision-making authority, coordination mechanisms, learning routines, leadership practices, employee autonomy, performance control, change management, and the perceived advantages and limitations of traditional and agile systems.

Examples of interview questions included: “How are important decisions usually made in your organization?”, “How does your organization respond when market or customer requirements change?”, “What role do managers play in coordinating daily work?”, “How are mistakes, feedback, and learning handled?”, “What differences do you see between traditional and agile management systems?”, and “What changes are necessary for an organization to move from a traditional system toward a more adaptive one?” Follow-up questions were used to clarify meanings, request examples, and deepen comparison between formal procedures and actual managerial practices.

Interviews were conducted in person or online depending on participant availability. Each interview lasted between 45 and 75 minutes. All interviews were audio-recorded with participant consent and transcribed verbatim. Field notes were written immediately after each interview to record contextual observations, preliminary interpretations, and analytical reflections. Ethical considerations included voluntary participation, informed consent, confidentiality, anonymization of participant identities, and the right to withdraw from the study at any time. Participants were coded as T1–T14 for traditional organizations and A1–A14 for agile-oriented organizations.

Data were analyzed using thematic analysis supported by NVivo software. The analytical procedure followed an iterative and comparative logic. First, all transcripts were read several times to gain familiarity with the data and to identify preliminary patterns. Second, open coding was conducted line by line to capture meaningful units related to structure, authority, coordination, learning, leadership, conflict, adaptation, and transformation. Third, similar codes were grouped into subcategories through constant comparison within and across the two organizational groups. Fourth, axial coding was used to identify relationships among categories and to distinguish between traditional, agile, and hybrid management patterns. Fifth, the main categories were refined and named based on their conceptual relevance to management system evolution.

NVivo software was used to organize transcripts, manage codes, compare participant groups, retrieve quotations, and develop coding matrices. However, the software was used as a support tool rather than as a substitute for interpretive analysis. The main analytical emphasis was placed on conceptual comparison, pattern recognition, and theoretical interpretation. The coding process was informed by Braun and Clarke’s thematic analysis approach and by qualitative rigor principles associated with inductive organizational research (Braun & Clarke, 2006; Gioia et al., 2013). Trustworthiness was enhanced through several strategies. Credibility was supported through member checking with selected participants and peer debriefing with two qualitative research experts. Dependability was strengthened through an audit trail documenting coding decisions, category revisions, and analytical memos. Confirmability was addressed by maintaining reflexive notes to reduce researcher bias. Transferability was supported through detailed description of participants, organizational contexts, and analytical categories.

3. Findings and Results

The demographic characteristics of the participants showed a balanced distribution across organizational types and managerial roles. Of the 28 participants, 14 participants were from traditional organizations and 14 were from agile-oriented organizations. Eighteen participants were male and 10 were female. In terms of age, 5 participants were between 30 and 35 years old, 11 were between 36 and 40 years old, 8 were between 41 and 45 years old,

and 4 were older than 45 years. Regarding professional role, 9 participants were senior managers, 8 were middle managers, 5 were project or product managers, 3 were HR or organizational development specialists, and 3 were senior operational or technical experts. In terms of work experience, 6 participants had 6–9 years of experience, 12 had 10–15 years, 7 had 16–20 years, and 3 had more than 20 years. Educationally, 16 participants held master's degrees, 7 held bachelor's degrees, and 5 held doctoral degrees or professional doctoral-level qualifications. This demographic diversity enabled comparison across managerial levels, sectors, and organizational forms.

The first main category was **structural reconfiguration from hierarchy to networked coordination**. Participants from traditional organizations described structure as a vertical chain of authority in which responsibilities were clearly defined, reporting lines were stable, and formal approval was necessary for most cross-unit activities. This structure was perceived as useful for accountability and risk control but also as slow and rigid when environmental conditions changed. One participant from a traditional organization stated, “In our company, everyone knows who should approve what, but sometimes the problem is that by the time approval comes, the opportunity has already disappeared” (T4). In contrast, participants from agile organizations described structure as more fluid, team-based, and cross-functional. They emphasized coordination through daily interactions, shared boards, sprint planning, and direct communication among business, technical, and customer-facing units. One agile participant explained, “The team does not wait for the hierarchy to translate every issue. Product, design, and development sit together and solve the problem before it becomes an official crisis” (A7). The comparative analysis showed that agile organizations did not remove structure; rather, they shifted structure from vertical reporting toward lateral coordination. The evolutionary pathway in this category involved movement from position-based coordination to capability-based coordination.

The second main category was **transformation of decision-making from authorization-based control to distributed responsiveness**. In traditional organizations, decision-making was commonly described as centralized, document-driven, and dependent on managerial authorization. Participants explained that decisions were often escalated upward, especially when they involved budget, customer commitments, process changes, or interdepartmental coordination. This approach reduced personal risk for employees but created delays and limited initiative. As one participant noted, “People prefer not to decide because if something goes wrong, they will be blamed. So the safest behavior is to send the issue upward” (T9). In agile organizations, decision-making was more frequently delegated to teams within defined boundaries. Participants emphasized that autonomy did not mean absence of control; rather, teams were allowed to make fast decisions within agreed goals, priorities, and customer-value criteria. One participant said, “Management defines the direction, but the team decides how to reach it. If we ask for permission for every small change, we are not agile anymore” (A3). The findings indicated that the critical distinction was not centralization versus decentralization in absolute terms but the location of decision rights. Traditional systems located decision rights in formal authority, whereas agile systems located many operational decisions closer to information, expertise, and customer feedback.

The third main category was **evolution of learning routines from periodic correction to continuous experimentation**. Participants from traditional organizations described learning as occurring mainly after errors, audits, annual reviews, customer complaints, or formal performance evaluations. Although these mechanisms generated lessons, learning was often delayed and separated from daily work. One traditional manager stated, “We usually learn after the project is finished. The report is written, the mistakes are identified, but the next project has already started with the same assumptions” (T2). Agile participants described learning as embedded in short

cycles through retrospectives, sprint reviews, customer demonstrations, and frequent feedback. They framed mistakes as sources of adjustment rather than as purely negative events. One participant explained, “The retrospective is where the team breathes. We ask what worked, what failed, and what we change next week. Learning is not a ceremony for us; it is part of delivery” (A11). The comparison showed that traditional organizations tended to treat learning as episodic and corrective, whereas agile organizations treated learning as continuous and generative. The evolutionary pathway involved shifting from retrospective diagnosis to real-time adaptation.

The fourth main category was **leadership role transition from command supervision to enabling facilitation**. Participants in traditional organizations often associated leadership with planning, supervision, resource allocation, conflict resolution, and enforcement of procedures. Managers were expected to know, decide, approve, and control. This leadership model provided clarity but could also reinforce dependency. One participant observed, “Employees are used to asking the manager even when they know the answer, because the culture says the manager must approve” (T13). In agile organizations, leadership was described more as facilitation, coaching, boundary management, and obstacle removal. Agile leaders were expected to create clarity of purpose, protect team focus, ensure psychological safety, and connect team-level work to strategic priorities. One agile product manager stated, “My role is not to tell the team every task. My role is to remove the blockers, keep the customer visible, and make sure the team understands why the work matters” (A5). The findings suggested that management system evolution requires a change in managerial identity. Leaders must move from being controllers of compliance to designers of conditions for autonomous performance.

The fifth main category was **emergence of hybrid management pathways combining procedural stability with adaptive flexibility**. The data showed that neither traditional nor agile systems operated as pure ideal types. Traditional organizations sometimes used agile-like practices informally, such as rapid task forces, crisis teams, or informal expert networks. Agile organizations also retained formal structures for budgeting, legal compliance, cybersecurity, HR policy, and executive governance. Participants emphasized that excessive agility without governance could produce confusion, duplication, and strategic fragmentation. One agile participant stated, “When everything is flexible, people can lose the bigger picture. We still need architecture, priorities, and governance; otherwise agility becomes noise” (A9). Similarly, a traditional organization participant acknowledged, “We cannot become a startup, but we can make some parts of the organization faster and more team-based” (T6). This category revealed that the most realistic evolutionary pathway was hybridization. Successful management system evolution did not require abandoning hierarchy entirely; it required differentiating between areas needing stability and areas needing adaptability. Agile evolution, therefore, appeared as a selective redesign of management routines rather than a universal structural revolution.

4. Discussion and Conclusion

The first major finding showed that management system evolution involves structural reconfiguration from vertical hierarchy to networked coordination. This finding is consistent with Burns and Stalker’s distinction between mechanistic and organic systems, where mechanistic arrangements are more appropriate for stable conditions and organic arrangements are more suitable for dynamic environments (Burns & Stalker, 1961). In the present study, traditional organizations relied on vertical reporting lines, formal role boundaries, and sequential

coordination, while agile organizations relied more heavily on cross-functional teams, lateral communication, and direct problem-solving. However, the findings also refine this classical distinction by showing that agile organizations do not operate without structure. Rather, they use different structures: lightweight routines, team boundaries, sprint cycles, product ownership, and transparent work systems. This supports Mintzberg's argument that organizations require coordination mechanisms, but it also suggests that the dominant mechanism changes as organizations evolve (Mintzberg, 1979). Traditional organizations emphasize standardization and supervision, whereas agile organizations emphasize mutual adjustment and iterative coordination.

The second finding indicated that decision-making evolves from authorization-based control toward distributed responsiveness. This result aligns with dynamic capabilities theory, which emphasizes the need to reconfigure resources and decisions in changing environments (Teece et al., 1997; Eisenhardt & Martin, 2000). In traditional organizations, decision-making authority was located at higher levels of hierarchy, which protected accountability but slowed response speed. In agile organizations, decision rights were pushed closer to teams that possessed relevant information and customer knowledge. This finding supports the argument that agility is not merely a set of methods but a redistribution of authority and responsibility. It also corresponds with Boehm and Turner's observation that agile implementation in traditional organizations often creates business process and people-related conflicts because decision-making norms are embedded in established managerial expectations (Boehm & Turner, 2005). The present study extends this insight by showing that distributed responsiveness requires psychological and institutional support; employees will not exercise autonomy if blame, punishment, or ambiguous authority remain dominant.

The third finding showed that learning routines evolve from periodic correction to continuous experimentation. This finding is strongly aligned with March's distinction between exploitation and exploration (March, 1991). Traditional organizations in this study were more oriented toward exploitation, standardization, and delayed evaluation. Agile organizations were more oriented toward exploration, feedback, and short-cycle experimentation. However, the data also showed that exploration alone is insufficient. Agile participants recognized the need for prioritization, architectural coherence, and governance. This suggests that effective management system evolution requires ambidexterity: the ability to exploit existing capabilities while exploring new possibilities. Tushman and O'Reilly's work on ambidextrous organizations is relevant here because organizations must manage both evolutionary and revolutionary change without allowing one logic to destroy the other (Tushman & O'Reilly, 1996). In this sense, agile management is not a rejection of exploitation but a mechanism for integrating controlled experimentation into ongoing operations.

The fourth finding revealed that leadership evolves from command supervision toward enabling facilitation. This finding is consistent with studies of self-organizing agile teams, which show that team autonomy depends on supportive organizational and managerial conditions (Hoda et al., 2013). Participants in agile organizations emphasized that leaders must remove obstacles, clarify purpose, protect focus, and connect teams with customers and strategy. This differs from traditional leadership expectations in which managers primarily approve, supervise, and correct. The finding also aligns with Rigby et al.'s view that agile works best when teams are empowered, customer-focused, and supported by leadership rather than constrained by excessive command-and-control oversight (Rigby et al., 2016). Importantly, this study suggests that leadership transformation may be one of the most difficult aspects of management system evolution because it requires managers to give up visible control

while remaining accountable for outcomes. This creates identity tension: managers must become architects of conditions rather than owners of all decisions.

The fifth finding demonstrated that the most realistic evolutionary pathway is hybridization rather than pure conversion from traditional to agile systems. This finding supports contemporary research suggesting that large-scale agile transformation involves substantial challenges and success factors, including culture, management support, coordination across teams, and alignment with existing organizational processes (Dikert et al., 2016). The participants' accounts showed that traditional organizations may benefit from agile routines in innovation, customer service, product development, and crisis response, while agile organizations still require formal governance for compliance, budgeting, strategic alignment, and risk management. This finding is also consistent with contingency theory because it suggests that no single management system is universally optimal; instead, organizations must fit management routines to environmental uncertainty, task complexity, and institutional requirements (Lawrence & Lorsch, 1967). Therefore, the evolutionary pathway of management systems should be understood as selective recombination. Organizations evolve by deciding which routines to stabilize, which to decentralize, which to accelerate, and which to redesign.

Overall, the findings contribute to the literature by conceptualizing management system evolution as a multidimensional process involving structure, authority, learning, leadership, and hybrid governance. Previous research has often examined agile adoption from the perspective of methods, tools, or transformation challenges, particularly in software and project-based contexts (Dybå & Dingsøyr, 2008; Conforto et al., 2014; Dikert et al., 2016). The present study extends this literature by comparing traditional and agile organizations through participants' lived managerial experiences and by showing that agility is not simply a practice set but a deeper reconfiguration of organizational logic. Agile evolution changes how coordination occurs, where decisions are made, how learning is produced, what leaders do, and how stability and flexibility are balanced. This qualitative comparative perspective is especially valuable in Tehran-based organizations, where firms often face simultaneous pressures for innovation, compliance, efficiency, and institutional legitimacy.

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

- Boehm, B., & Turner, R. (2005). Management challenges to implementing agile processes in traditional development organizations. *IEEE Software*, 22(5), 30–39. <https://doi.org/10.1109/MS.2005.129>

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- Burns, T., & Stalker, G. M. (1961). *The management of innovation*. Tavistock.
- Conforto, E. C., Salum, F., Amaral, D. C., da Silva, S. L., & de Almeida, L. F. M. (2014). Can agile project management be adopted by industries other than software development? *Project Management Journal*, 45(3), 21–34. <https://doi.org/10.1002/pmj.21410>
- Denning, S. (2016). Understanding the three laws of Agile. *Strategy & Leadership*, 44(6), 3–8. <https://doi.org/10.1108/SL-09-2016-0074>
- Dikert, K., Paasivaara, M., & Lassenius, C. (2016). Challenges and success factors for large-scale agile transformations: A systematic literature review. *Journal of Systems and Software*, 119, 87–108. <https://doi.org/10.1016/j.jss.2016.06.013>
- Dybå, T., & Dingsøyr, T. (2008). Empirical studies of agile software development: A systematic review. *Information and Software Technology*, 50(9–10), 833–859. <https://doi.org/10.1016/j.infsof.2008.01.006>
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10–11), 1105–1121. [https://doi.org/10.1002/1097-0266\(200010/11\)21:10<11%3C1105::AID-SMJ133%3E3.0.CO;2-E](https://doi.org/10.1002/1097-0266(200010/11)21:10<11%3C1105::AID-SMJ133%3E3.0.CO;2-E)
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods*, 16(1), 15–31. <https://doi.org/10.1177/1094428112452151>
- 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>
- Hoda, R., Noble, J., & Marshall, S. (2013). Self-organizing roles on agile software development teams. *IEEE Transactions on Software Engineering*, 39(3), 422–444. <https://doi.org/10.1109/TSE.2012.30>
- Lawrence, P. R., & Lorsch, J. W. (1967). *Organization and environment: Managing differentiation and integration*. Harvard Business School, Division of Research.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2(1), 71–87. <https://doi.org/10.1287/orsc.2.1.71>
- Mintzberg, H. (1979). *The structuring of organizations: A synthesis of the research*. Prentice-Hall.
- Nguyen, T., Le, C. V., Nguyen, M., Nguyen, G., Lien, T. T. H., & Nguyen, O. (2025). The organisational impact of agility: A systematic literature review. *Management Review Quarterly*. <https://doi.org/10.1007/s11301-024-00446-9>
- Rigby, D. K., Sutherland, J., & Takeuchi, H. (2016). Embracing agile. *Harvard Business Review*, 94(5), 40–50.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7%3C509::AID-SMJ882%3E3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7%3C509::AID-SMJ882%3E3.0.CO;2-Z)
- Tushman, M. L., & O'Reilly, C. A., III. (1996). Ambidextrous organizations: Managing evolutionary and revolutionary change. *California Management Review*, 38(4), 8–30. <https://doi.org/10.2307/41165852>
- Walter, A. T. (2021). Organizational agility: Ill-defined and somewhat confusing? A systematic literature review and conceptualization. *Management Review Quarterly*, 71, 343–391. <https://doi.org/10.1007/s11301-020-00186-6>