

# The Unclear Mandate: Managerial Tensions in Large Scale Agile Transformations — A Structured Literature Review

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## Abstract

*In many large enterprises, scaling agile has become a central part of broader digital transformation efforts. While the benefits of agile at the team level are well documented, the role of managers, particularly those in middle management, remains conceptually underdeveloped and practically ambiguous. This paper presents a structured review of 15 recent studies on large scale agile transformations published between 2019 and 2025. The synthesis identifies four recurring domains of managerial tension. These domains are leadership and authority, decision making and governance, coordination and integration, and performance and sustainability. The analysis interprets these tensions as paradoxes that require managers to reconcile autonomy with control, short term delivery with long term capability building, and local experimentation with enterprise stability. Drawing on paradox theory and dynamic capabilities, the paper develops a conceptual framework that positions middle managers as brokers of paradox across organizational levels. The framework contributes to scholarship by integrating fragmented evidence on managerial work in agile transformations and by extending paradox theory into the context of large scale agile. For practitioners, it offers a lens for redesigning leadership development, governance arrangements, and performance systems so that managers are better equipped to sustain agility over time.*

**Keywords:** large-scale agile; middle management; managerial tensions; organizational agility; paradox theory; enterprise governance; digital transformation; scaled agile frameworks.

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## 1. Introduction

In today's dynamic business environment, organizational agility has increasingly become a strategic imperative for enterprises seeking to remain competitive. Agile methodologies, initially designed for software development teams, have long demonstrated benefits in responsiveness, customer focus, and delivery speed (Moe & Mikalsen, 2020; van Wessel et al., 2022). Their success at the team level has, in many cases, encouraged organizations to extend agile practices across wider

structures, producing what is now widely referred to as large-scale agile transformation (Uludağ et al., 2022).

Scaling agile, however, is not simply a matter of replicating team-level practices at higher organizational tiers. It requires fundamental changes in structures, leadership models, governance mechanisms, and even cultural assumptions (Carroll et al., 2023). Among these shifts, the role of managers, especially middle managers, emerges as both pivotal and problematic. They are expected to empower self-organizing teams yet simultaneously ensure compliance, to decentralize

decision-making while preserving accountability, and to drive ongoing transformation without neglecting short-term performance targets. These paradoxical demands illustrate the complexity of the managerial mandate in enterprise-wide agile contexts.

Although research on scaling agile has grown substantially, the existing evidence base remains fragmented. Insights are dispersed across case studies, industry reports, and sector-specific analyses. In recent years (2019–2025), a surge of empirical studies has appeared, reflecting the increased maturity of large-scale agile initiatives across industries. Yet the findings remain disconnected, leaving both scholars and practitioners with a patchwork view of how managerial tensions are experienced and addressed in practice.

This paper responds to that gap by conducting a structured literature review (Snyder, 2019). A structured review is particularly suited to this domain: while the body of work is sufficiently large to warrant consolidation, it is also too diverse and emergent to support the exhaustiveness of a full systematic review. By adopting a transparent and replicable approach, the study integrates insights from 15 peer-reviewed publications released between 2019 and 2025, producing a consolidated account of managerial challenges in scaling agile.

Paradox theory provides the conceptual lens through which these findings are interpreted. Rather than viewing organizational tensions as problems to be solved, paradox theory frames them as enduring contradictions that must be managed over time (Lewis, 2000; Smith & Lewis, 2011). This lens is particularly relevant for the “unclear mandate” of middle managers, who operate at the intersection of hierarchical accountability and agile autonomy.

Guided by this framing, the central research question posed in this study is as follows: **How do managerial tensions manifest across different organizational levels in large-scale agile transformations, and how can a conceptual framework clarify the role of middle managers in navigating these paradoxes?** To address this question, the study pursues three objectives: first, to identify and categorize key managerial tensions as documented in recent research; second, to synthesize these tensions into a conceptual framework that highlights the central role of middle managers; and third, to propose a research agenda with testable propositions

that advance both theoretical understanding and practical application.

The contribution of this paper is threefold. It consolidates fragmented scholarship through a structured synthesis of 15 recent studies (2019–2025), providing an integrated view of managerial tensions in scaling agile. It introduces a conceptual framework that organizes these tensions into four domains, leadership and authority, decision-making and governance, coordination and integration, and performance evaluation and sustainability while positioning middle managers as key brokers navigating these paradoxes. Finally, it sets out a research agenda with propositions (P1–P4) that can be empirically tested, offering pathways for both scholarly inquiry and managerial practice.

The remainder of the paper is organized as follows. Section 2 outlines the methodology, including the review design, search process, and quality appraisal. Section 3 presents the findings, synthesizing managerial tensions into four domains. Section 4 discusses the theoretical, practical, and research implications, introduces the conceptual framework, and identifies directions for further investigation. Section 5 concludes by summarizing the contributions for scholars and practitioners and by underscoring the significance of clarifying the managerial role in sustaining agility at scale.

### **1.1 Relevancy and Originality**

The relevance of this study lies in addressing a dimension of agile transformations that has received limited systematic attention: the paradoxical role of managers, particularly middle managers. While prior reviews of large-scale agile adoption have mapped general obstacles such as coordination complexity, requirement dependencies, or tool integration (Dikert, Paasivaara, & Lassenius, 2016; Uludağ et al., 2022), they have not consolidated evidence on the evolving managerial mandate. This paper makes an original contribution by explicitly applying paradox theory to synthesize findings on managerial tensions. In doing so, it proposes a novel typology of four domains, leadership and authority, decision-making and governance, coordination and integration, and performance and sustainability that extends beyond the fragmented insights presented in earlier reviews. By framing middle managers as brokers of paradox, the study offers fresh theoretical insights and practical guidance that distinguish it from prior literature,

thereby enhancing both scholarly understanding and organizational practice in large-scale agile transformations. Unlike earlier reviews that catalogued broad obstacles in scaling agile (e.g., Dikert, Paasivaara, & Lassenius, 2016; Uludağ et al., 2022), this study is the first to consolidate evidence on the paradoxical mandate of managers and to interpret these tensions through paradox theory.

## 2. Methodology

### 2.1 Research Design

This study employs a Structured Literature Review (SLR-lite) approach (Snyder, 2019), which is a purposeful and transparent method for synthesizing a well-defined body of literature without claiming the exhaustive scope of a full systematic review. The structured review was selected because the research domain managerial tensions in large-scale agile transformations is emerging and fragmented, with valuable but dispersed evidence across case studies, conference proceedings, and journal articles. By applying clear inclusion criteria, systematic screening, and thematic synthesis, this approach balances rigor with feasibility in order to consolidate insights into a conceptual framework.

### 2.2 Research Questions

This review was guided by a set of interrelated research questions that shaped the overall design and analysis. The first question sought to clarify what kinds of managerial tensions have been documented in the literature on large-scale agile transformations. Although there is a broad agreement that managers play a critical role in these transformations, the precise nature of the challenges they face has not been consistently articulated. Understanding the recurring tensions, whether they relate to authority, governance, coordination, or performance, is essential for developing a comprehensive picture of the managerial role.

The second question focused on how these documented tensions might be organized into a coherent framework. Much of the existing research highlights individual obstacles or case-specific issues, but these accounts often remain fragmented. By asking whether a unifying conceptual structure can be drawn from the disparate findings, this review aims to move beyond isolated observations. The intention is to identify patterns across contexts and disciplines, and in doing so, to provide a

lens through which both scholars and practitioners can better understand the paradoxical demands placed on managers in agile environments.

A third and final question asked what gaps remain in the literature concerning the managerial role in scaling agile. Even as the body of evidence has grown rapidly in recent years, it is apparent that certain areas remain underexplored. For instance, while tensions at the team and program level have been described in detail, less attention has been paid to how these tensions evolve over time or differ across industries. Similarly, there is still limited empirical work that tests conceptual models in practice. Identifying such gaps is important not only for guiding future academic inquiry but also for shaping the advice given to organizations undergoing transformation. Together, these three guiding questions frame the review as both a consolidation of existing insights and a platform for new avenues of research.

### 2.3 Search Strategy

To identify relevant studies, structured searches were conducted across **Scopus**, **Web of Science Core Collection**, **IEEE Xplore**, **ACM Digital Library**, **SpringerLink**, and **ScienceDirect** during July–August 2025. These databases were chosen for their strong coverage of information systems, project management, and software engineering research.

Boolean operators were applied to combine key terms such as:

(“large-scale agile” OR “scaled agile”  
OR “agile at scale”)  
AND (“management” OR “managerial  
role” OR “leadership” OR “middle  
management”)  
AND (“tensions” OR “challenges” OR  
“conflicts” OR “barriers”).

Filters were applied to retain only English-language, peer-reviewed work published between 2019 and 2025. This period was chosen deliberately to capture the heightened digital acceleration that followed the COVID-19 pandemic, during which many enterprises expanded agile practices across organizational boundaries. The literature produced in this window offers more mature and context-rich insights into the managerial challenges of scaling agility in complex environments.

## 2.4 Inclusion and Exclusion Criteria

To ensure both rigor and relevance, the review applied a carefully defined set of inclusion and exclusion criteria. Only studies published between 2019 and 2025 were considered, as this period reflects the most recent wave of large-scale agile adoption and captures insights from the post-COVID era when many enterprises accelerated their digital transformation initiatives. Within this temporal window, the review focused exclusively on peer-reviewed journal articles, conference proceedings, and book chapters. These types of publications were selected because they provide a higher degree of scholarly credibility and methodological transparency compared to industry reports or practitioner blogs.

Another important inclusion requirement was that the studies explicitly addressed large-scale or enterprise-wide agile transformations. Research that examined agile practices at the level of individual teams without situating them in a broader organizational context was not included, as such work does not engage with the structural and managerial complexities that are the focus of this paper. To further refine the scope, only publications that discussed issues of management, leadership, or organizational tensions were selected. This emphasis ensured that the review remained centered on the human and structural challenges of scaling agile, rather than drifting into purely technical or engineering debates.

Several types of studies were excluded on this basis. Papers limited to technical implementations, software engineering practices, or tool adoption without explicit managerial analysis were set aside, since they did not provide insight into the role of managers in transformation processes. Similarly, grey literature such as blogs, white papers, or consultancy reports was not systematically included. However, these sources were sometimes referenced indirectly when cited by peer-reviewed publications, as they can illustrate the practitioner discourse surrounding agile transformation. In addition, one practitioner-oriented capstone report (Wright, 2018) was incorporated as a contextual reference. Although not peer-reviewed, this report was considered valuable for its practical perspective, and it served to complement the insights drawn from academic sources without being counted as part of the core evidence base.

## 2.5 Screening Process

The initial database search identified 40 records. After removing duplicates, 32 records remained. Title and abstract screening excluded 11 papers that did not meet the inclusion criteria, leaving 21 full-text studies. Following detailed review, 15 studies were retained for final synthesis (14 peer-reviewed + 1 practitioner-oriented).

To enhance transparency, the process is summarized in a PRISMA-style flow diagram (Figure 1), adapted from Moher et al. (2009). While not claiming full PRISMA compliance, this diagram provides a clear overview of identification, screening, and inclusion stages. The results of the screening process are visualized in the PRISMA diagram shown in **Figure 1**

## 2.6 Data Extraction and Analysis

A structured data extraction form was designed to capture the essential attributes of each study included in the review. For every publication, details such as the author or authors, year of release, and outlet of publication were recorded. The organizational and industry context was also noted, alongside the research method employed, whether case study, survey, conceptual analysis, or review. In addition, the extraction process documented the managerial tensions or challenges identified in each study as well as the key findings and their broader implications.

The extracted information was then analyzed thematically, following the six-step framework for qualitative analysis outlined by Braun and Clarke (2006). All studies were read in full to support familiarization, after which relevant text segments were coded in NVivo 14 to ensure both consistency and traceability. Coding began with the identification of recurring issues, such as autonomy versus control or conflicts in governance structures. These initial codes were then clustered into candidate themes, which were subsequently compared across the dataset. Through this cross-study review, themes were refined, consolidated, and ultimately named, producing four overarching domains. The process concluded with the synthesis of findings into a conceptual framework that captured the managerial tensions in large-scale agile transformations.

To enhance the rigor of this procedure, two reviewers independently coded the first five studies and then compared their results. Inter-rater reliability was calculated using Cohen's Kappa, which produced a score of 0.82. This value is generally interpreted as indicating

strong agreement (McHugh, 2012). Any discrepancies identified in this initial phase were resolved through discussion, after which the remaining studies were coded

iteratively. Periodic cross-checks were conducted throughout to maintain consistency and ensure the robustness of the analysis.

Table 1. Summary of included studies (2019–2025)

| Author(s), Year          | Method                           | Context                          | Main Findings                                  | Managerial Tensions                                     |
|--------------------------|----------------------------------|----------------------------------|--|---|
| Strode et al., 2022      | Case study (3 orgs)              | Public orgs (UK)                 | Identified 13 tensions; applied paradox theory | Authority vs autonomy; top-down vs bottom-up            |
| Carroll et al., 2023     | Case study (exploratory)         | Large-scale agile transformation | Transformation fails if not normalized         | Adoption vs normalization; sustaining change            |
| Bremer, 2024             | Conceptual (manifesto)           | Whole-organization agility       | Argues for 'growing' Agile, not just scaling   | Leadership for long-term growth, not short-term scaling |
| Grundler & Westner, 2019 | Conceptual + framework analysis  | Service companies & EA           | EA conflicts with scaling frameworks           | Balancing EA rigidity with Agile flexibility            |
| Chen et al., 2025        | Systematic review (66 papers)    | Digital transformation & PM      | Identified misalignments in DT & PM            | Governance and leadership gaps in DT projects           |
| Wright, 2018             | Capstone/lit synthesis           | General agile practice overview  | Lists success factors & pitfalls               | High-level best practices but little empirical depth    |
| Moe & Mikalsen, 2020     | Case study (public sector)       | Business + DevOps integration    | Autonomy + continuous deployment reduce risks  | Balance autonomy with risk + compliance                 |
| Uludağ et al., 2020      | Systematic mapping (136 studies) | Global agile research landscape  | Mapped research gaps in LSA                    | Gaps in defining 'large-scale'; research fragmentation  |

|                                  |                                      |                                       |   |   |
|----------------------------------|--------------------------------------|---------------------------------------|---|---|
| <b>Verwijs &amp; Russo, 2023</b> | Survey (15k team members)            | Scaling frameworks (SAFe, LeSS, etc.) | Framework choice matters less than culture/experience | Framework vs culture; authority distribution              |
| <b>Ågren et al., 2022</b>        | Case study (automotive)              | Automotive systems (HW+SW)            | Scaling beyond software needs cross-domain strategies | Coordination across hardware, software, suppliers         |
| <b>Dingsøy et al., 2022</b>      | Case study (public IT project)       | Norwegian Labour & Welfare Admin      | Autonomous teams + trunk-based dev successful         | Balancing autonomy vs delivery accountability             |
| <b>Sońta-Drączkowska, 2024</b>   | Expert interviews (34 practitioners) | Large enterprises (cross-industry)    | Managerial tensions across org levels                 | Unclear mandate of middle managers                        |
| <b>Van Wessel et al., 2022</b>   | Case study (service firms)           | Service organizations                 | Scaling requires linking EA, tools, processes         | Integrating scaling frameworks with enterprise governance |
| <b>Hüllmann, 2024</b>            | Case study (safety-critical)         | Safety-critical domains               | Unique governance needs in safety-critical fields     | Compliance vs speed in safety-critical projects           |
| <b>Poth et al., 2019</b>         | Toolkit & framework proposal         | Volkswagen IT transformation          | Proposes structured toolkit for scaling transitions   | Transition speed vs organizational stability              |

## 2.7 Synthesis Approach

Given the heterogeneity of study designs, a **narrative synthesis approach** was adopted (Petticrew & Roberts, 2006). This allowed insights from case studies, surveys, and conceptual analyses to be integrated into thematic clusters. The synthesis produced four recurring domains of managerial tension, which are elaborated in Section 3.

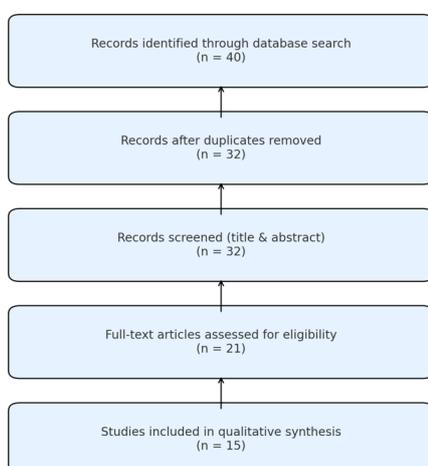
## 2.8 Study Quality Appraisal

To strengthen validity, each included study was appraised against four criteria: **relevance to research questions, contextual clarity, methodological transparency, and scholarly credibility**. This “light-touch” appraisal approach follows recommendations for balancing rigor with feasibility in emerging fields (Kitchenham & Charters, 2007; Snyder, 2019).

Each study was rated High (3), Moderate (2), or Low (1) on each criterion, with a maximum possible score of 12. Studies scoring below 6 were excluded. All 15 retained studies met the minimum threshold, with 11 rated High quality and 4 rated Moderate. Results of this appraisal are summarized in **Appendix B (Table B1)**.

## PRISMA Flow

The search and screening process is summarized in Figure 1. A total of 40 records were initially identified across databases. After removing 8 duplicates, 32 records remained for screening. Following title and abstract review, 11 records were excluded for not meeting the inclusion criteria, leaving 21 full-text articles assessed. Of these, 6 were excluded due to lack of explicit focus on managerial roles, resulting in 15 studies included in the final synthesis.



**Figure 1. PRISMA flow diagram showing the selection of studies for the review**

## 3. Findings

This review synthesized insights from 15 studies published between 2019 and 2025, of which 14 were peer-reviewed and one was a practitioner-oriented capstone report included for contextual richness. While the studies spanned different industries, software, automotive, public sector, and service organizations, a consistent set of tensions emerged around the role of management in scaling agile. These tensions are not isolated but interconnected, shaping the ambiguity of the managerial mandate. Four domains capture the essence of these challenges: **leadership and authority, decision-making and governance, coordination and integration, and performance evaluation and sustainability**.

As summarized in Table 1, the 15 reviewed studies revealed a consistent pattern of managerial tensions that can be grouped into four overarching domains: leadership and authority, decision-making and governance, coordination and integration, and performance evaluation and sustainability. The table consolidates key details from each study, including research method, organizational context, and the specific managerial challenges identified. Table 1 provides an overview of the 15 included studies, highlighting their context, methods, and reported tensions

### 3.1 Leadership and Authority Tensions

The tension between **centralized authority and decentralized autonomy** is a recurring theme across industries. Strode et al. (2022) demonstrated how public-sector managers struggled to empower teams while ensuring compliance, whereas Carroll et al. (2023) highlighted that transformations often stall during normalization when leaders cannot reconcile self-organization with hierarchical expectations. Bremer et al. (2025) added that leaders must shift from “scaling” agile practices to “growing” agility as a mindset, emphasizing cultural development over structural enforcement.

Taken together, these studies show that middle managers face a paradoxical mandate: they are expected to **champion empowerment while simultaneously safeguarding alignment and compliance**. Existing

frameworks offer only partial explanations treating leadership either as a structural issue (e.g., SAFe, LeSS) or as a cultural mindset. This reinforces the need for a **new framework** that clarifies how leadership tensions shape the “unclear mandate” of middle managers in scaled agile contexts.

### 3.2 Decision-Making and Governance Tensions

Conflicts between **enterprise-level governance and team-level autonomy** also emerged as a dominant theme. Grundler and Westner (2019) and van Wessel et al. (2022) documented how enterprise architecture requirements often clash with the flexibility expected in scaled agile frameworks. Chen et al. (2025) observed similar misalignments in digital transformation projects, where rigid governance structures undermined agility. Across these cases, managers are positioned as a “translation layer,” responsible for balancing compliance and innovation but without clear authority to resolve conflicts.

These studies collectively suggest that governance tensions place managers in an **accountability trap**: they are responsible for delivery outcomes but constrained by top-down rules. While existing research acknowledges governance challenges, it does not provide a **holistic explanation of how they interact with other managerial tensions**. This gap underscores the need for an integrative framework that situates governance dilemmas alongside leadership, coordination, and evaluation challenges in shaping the managerial role.

### 3.3 Coordination and Cross-Functional Integration

Scaling agile requires managers to facilitate **coordination across teams, functions, and geographies**. Ågren et al. (2022) showed how the automotive sector struggled to extend agile practices beyond software to hardware and suppliers, while Dingsøyr et al. (2022) highlighted the need for new cross-team governance mechanisms in the Norwegian public sector. Verwijns and Russo (2023), in their large-scale survey, concluded that cultural alignment and managerial facilitation matter more than the choice of scaling framework.

Taken together, these studies reveal that middle managers often act as **integration leaders**, orchestrating dependencies and feedback loops that span organizational silos. Yet their mandate remains unclear,

since coordination is expected without corresponding authority. Current research treats coordination barriers as technical or organizational issues, but fails to connect them to the broader paradox of the managerial role. This reinforces the need for a framework that explicitly links coordination with leadership, governance, and evaluation tensions.

### 3.4 Performance Evaluation and Sustainability Tensions

A final set of tensions revolves around how **performance is measured and transformations sustained**. Wright (2018) and Sońta-Drączkowska (2024) found that organizations often rely on outdated project-centric metrics, which fail to reflect long-term business value in agile contexts. Carroll et al. (2023) emphasized that many transformations regress because evaluation and reward systems are not aligned with agile principles. Poth et al. (2019) illustrated this in the Volkswagen IT transformation, where managers had to balance the speed of transition with organizational stability.

Across these studies, managers are caught in a **metrics paradox**: they must justify agile outcomes to executives using traditional indicators while supporting teams through learning-oriented practices. Current literature identifies this misalignment but does not fully explain how it interacts with leadership, governance, and coordination tensions to undermine sustainability. This strengthens the case for a framework that positions performance evaluation as part of the interconnected challenges defining the managerial mandate.

### 3.5 Synthesis of Findings

Across all four domains, a unifying pattern emerges: middle managers operate under an “**unclear mandate**.” They are asked to empower teams but also enforce compliance, to decentralize decision-making but also uphold governance, to integrate across silos but without formal authority, and to sustain transformations while meeting traditional performance metrics.

While prior literature has acknowledged these challenges individually, leadership ambiguity (Strode et al., 2022), governance conflicts (Grunder & Westner, 2019), coordination barriers (Ågren et al., 2022), and performance misalignment (Carroll et al., 2023) these tensions are typically examined in isolation. What is missing is a **holistic view that connects these recurring**

themes and explains their cumulative effect on the managerial role.

The conceptual framework introduced in the next section addresses this gap by consolidating the four tension domains into a unified structure. By explicitly

positioning middle managers as **brokers of paradox**, the framework clarifies their critical role in sustaining large-scale agile transformations and provides a novel lens for both scholars and practitioners. A consolidated summary of the four domains and illustrative studies is presented in **Table 2**

**Table 2. Summary of 15 studies on managerial tensions in large-scale agile transformations**

| Domain                       | Core Paradox   | Illustrative Studies                            |
|------------------------------|--|---|
| Leadership & Authority       | Balancing top-down control with bottom-up empowerment                  | Strode et al. (2022); Hutter et al. (2025)      |
| Decision-Making & Governance | Reconciling centralized compliance with decentralized autonomy         | Carroll et al. (2023); van Wessel et al. (2022) |
| Coordination & Integration   | Managing system-level interdependence while enabling team independence | Ågren et al. (2022); Dingsøy et al. (2022)      |
| Performance & Sustainability | Balancing short-term delivery metrics with long-term cultural change   | Chen et al. (2025); Uludağ et al. (2022)        |

Table 2 summarizes the 15 studies included in this review, highlighting their methods, contexts, key findings, and the managerial tensions reported. This synthesis underpins the categorization of tensions into the four domains

#### 4. Discussion

The synthesis of 15 recent studies highlights that the most persistent obstacles in large-scale agile transformations are not technical but **managerial in nature**. While frameworks such as SAFe, LeSS, and Nexus provide structural guidance, they do not resolve the paradoxes faced by managers operating between traditional hierarchies and agile principles. This discussion interprets the findings through theoretical lenses and introduces a conceptual framework that consolidates the identified tensions.

##### 4.1 Theoretical Implications

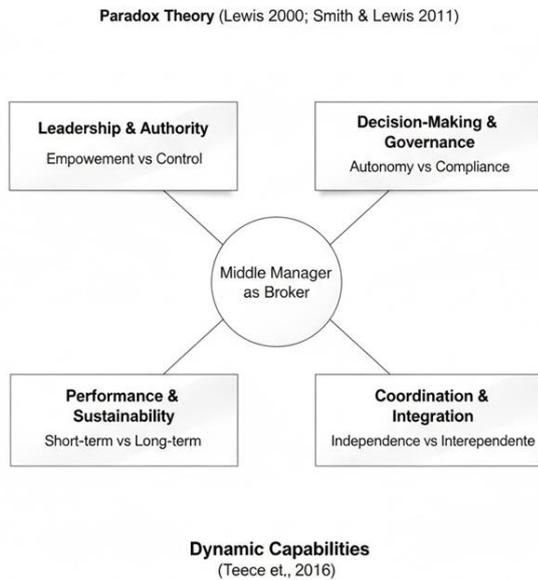
The findings align closely with **paradox theory**, which argues that organizations must embrace, rather than

eliminate, contradictory demands in order to sustain performance (Lewis, 2000; Smith & Lewis, 2011). Strode et al. (2022) demonstrated that managers continuously navigate paradoxes such as autonomy versus control, short-term delivery versus long-term learning, and top-down authority versus bottom-up empowerment. Rather than treating these tensions as problems to be solved, paradox theory suggests they should be managed dynamically as ongoing conditions

To clarify how the findings extend theoretical perspectives, Figure 2 illustrates the integration of paradox theory and dynamic capabilities with the four identified domains of managerial tension. Middle managers are positioned at the center as “brokers of paradox,” translating strategic intent while balancing

contradictory demands. Figure 2 illustrates how paradox theory and dynamic capabilities intersect with the four domains identified in this review

**Conceptual Map Linking Paradox Theory, Dynamic Capabilities, and Managerial Tensions**



**Figure 2. Conceptual map linking paradox theory, dynamic capabilities, and managerial tensions.**

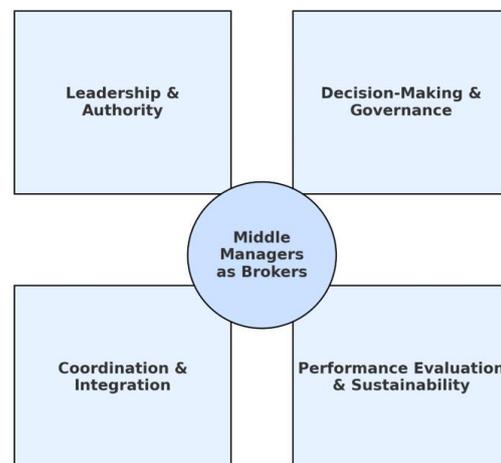
The results also reinforce scholarship on **dynamic capabilities**, which highlights the ability of firms to sense opportunities, seize them, and reconfigure resources in rapidly changing environments (Teece, Pisano, & Shuen, 1997; Teece, Peteraf, & Leih, 2016). Middle managers play a critical role in this process: they sense tensions in daily operations, seize opportunities to adjust coordination, and translate strategic intent into team-level actions. However, without a clear mandate and supportive structures, they often struggle to enact these capabilities effectively (Hutter, Brendgens, Gauster, & Matzler, 2025).

Finally, the review contributes to the literature on **organizational agility** by emphasizing the importance of leadership and governance as enablers of sustained transformation (Overby, Bharadwaj, & Sambamurthy, 2006; Sherehiy & Karwowski, 2014). While frameworks such as SAFe and LeSS provide structural guidance, they do not resolve the paradoxes faced by middle managers, suggesting that agility is as much about navigating competing demands as it is about adopting specific practices or tools.

The dynamics observed in this review are best interpreted through the dual lenses of paradox theory and dynamic capabilities. Together, these perspectives provide an integrative foundation for understanding how the four identified domains of managerial tension shape the work of middle managers during agile transformation. These theoretical anchors complement each other by highlighting both the persistent contradictions managers must navigate and the adaptive capabilities organizations must cultivate to respond effectively to shifting demands.

**4.2 Conceptual Framework of Managerial Tensions**

The proposed framework is illustrated in **Figure 3**, which categorizes managerial tensions into four interrelated domains and positions middle managers as brokers of paradox. Building on the review, this study proposes a conceptual framework that categorizes managerial tensions in large-scale agile transformations into four interrelated domains: leadership and authority, decision-making and governance, coordination and integration, and performance evaluation and sustainability. At the center of this framework lies the role of middle managers, who act as brokers navigating paradoxes between hierarchical accountability and agile autonomy. The proposed conceptual framework is illustrated in **Figure 3**



**Figure 3. Conceptual framework of managerial tensions in large-scale agile (four domains; middle managers as brokers)**

The framework extends prior synthesis efforts on large-scale agile challenges (Dikert, Paasivaara, & Lassenius, 2016; Uludağ et al., 2022) by focusing explicitly on the

managerial role. Earlier reviews tended to map general obstacles such as coordination complexity, requirement dependencies, or tool integration. By contrast, the present model consolidates scattered evidence on the tensions that managers face across organizational levels. In doing so, it illustrates how middle managers uniquely straddle contradictory expectations: they must empower teams while also ensuring alignment with enterprise goals, decentralize decision-making while still maintaining governance structures, and promote iterative learning while delivering immediate results.

Viewed through the lens of paradox theory (Lewis, 2000; Smith & Lewis, 2011), the four domains are best understood not as isolated problems to be solved but as enduring contradictions. Leadership and authority capture the paradox between the persistence of top-down control and the need for bottom-up empowerment. Decision-making and governance reflect the tension between centralized compliance requirements and decentralized team autonomy. Coordination and integration highlight the contradiction that emerges when system-level interdependence collides with team-level independence. Finally, performance and sustainability represent the clash between short-term efficiency metrics and the longer-term imperative of value creation.

By positioning middle managers as brokers of paradox, the framework emphasizes that their role is not merely supervisory but integrative. The broker role unfolds in several dimensions. As information brokers, managers translate strategic intent from executives into actionable guidance for teams while simultaneously channeling operational feedback upward. As resource brokers, they mediate the allocation of funding, talent, and infrastructure across teams, ensuring that dependencies are addressed without eroding team autonomy. And as cultural brokers, they balance traditional accountability systems with the values of agility, reinforcing trust and adaptability while managing the pressures of compliance. Collectively, these functions underscore the unique position of middle managers as mediators of paradox, linking strategy with execution and stability with change.

The four identified domains are consistent with themes reported across prior case studies (Carroll, Conboy, & Wang, 2023; Strode et al., 2022; Ågren, Heldal, Knauss, & Pelliccione, 2022). However, by organizing them into a unified, paradox-informed framework, this study contributes a structured lens that both scholars and

practitioners can use to anticipate managerial challenges in agile transformations.

### 4.3 Practical Implications

These recommendations underscore that managerial work in agile transformations is inherently paradoxical. Managers must continuously balance autonomy with control, reconcile short-term delivery pressures with long-term strategic objectives, and foster collaboration while safeguarding team-level independence. For practitioners, the framework highlights that the success of scaling agile depends less on the formal adoption of a specific methodology and more on a fundamental redefinition of the managerial role.

One clear implication is the need for leadership development and coaching programs designed specifically for middle managers. Such initiatives should emphasize paradox navigation and agile leadership skills. Without explicit role clarification and training, managers often revert to traditional command-and-control behaviors, a pattern that has repeatedly been shown to undermine agile adoption (Rigby, Sutherland, & Noble, 2018; Strode et al., 2022). A second implication concerns governance and performance systems. These must be redesigned to prioritize value delivery and customer outcomes rather than activity-based measures. Carroll, Conboy, and Wang (2023), for example, observed that transformations frequently stall when evaluation continues to focus on milestones or velocity rather than broader measures of business value.

A further implication is the creation of cross-functional arenas where managers can coordinate across teams and silos without introducing unnecessary bureaucracy. The automotive sector has demonstrated that integration challenges in large-scale projects demand system-level coordination mechanisms (Ågren, Heldal, Knauss, & Pelliccione, 2022). Finally, organizations must acknowledge the dual accountability of managers and equip them as integration leaders. Empowering managers with genuine decision-making authority enables them to balance team autonomy with enterprise-wide stability. Large-scale case evidence (Poth, Schlierkamp, & Riel, 2019; Hutter, Brendgens, Gauster, & Matzler, 2025) shows that when middle managers are positioned as integrators, agile transformations are more likely to persist over time.

Taken together, these implications suggest that redefining the role of middle managers is not an optional

adjustment but a prerequisite for sustaining agility at scale. Rather than treating managers as remnants of hierarchical structures, organizations should reframe them as enablers of integration and brokers of paradox. This shift aligns closely with both emerging practitioner advice (Rigby, Sutherland, & Takeuchi, 2016) and the scholarly evidence consolidated in this review. Ultimately, sustaining agility requires more than the adoption of frameworks; it calls for cultural change and managerial renewal. Long-term success depends less on which framework is selected and more on how effectively middle managers are equipped to navigate contradictions and integrate competing demands.

#### ***4.4 Research Implications and Future Directions***

Beyond practice, this review advances the scholarly conversation on large-scale agile transformations by synthesizing managerial tensions into a consolidated framework that positions middle managers as brokers of paradox. By integrating findings from fifteen recent studies, the analysis provides a more coherent foundation for theory development than has typically been available in a literature that remains fragmented across contexts and methodologies. In line with earlier mapping efforts that catalogued the broader challenges of scaling agile (Dikert, Paasivaara, & Lassenius, 2016; Uludağ et al., 2022), the present study calls for a sharper focus on the managerial dimension: who these managers are, how they act when tensions surface, and in what ways their actions either facilitate or hinder transformation outcomes.

Several promising directions emerge from this positioning. Longitudinal studies are needed to trace how managerial tensions rise, plateau, and evolve across different stages of transformation. Early phases may hinge on visible sponsorship and rapid restructuring, while later phases often depend on subtler adjustments in governance, metrics, and coordination (Carroll, Conboy, & Wang, 2023). Comparative work across industries would shed light on whether managers in regulated sectors such as healthcare or finance navigate paradoxes differently from those in consumer-tech settings, where time-to-market pressures dominate compliance concerns (Strode, Sharp, Barroca, Gregory, & Taylor, 2022). Cross-national comparisons could also illuminate how institutional logics such as labor relations or procurement regimes shape managerial responses (Ågren, Heldal, Knauss, & Pelliccione, 2022).

Quantitative research likewise deserves greater attention. The development of validated measures for constructs such as clarity of managerial mandate, governance compatibility, coordination density, and metric alignment would allow for systematic testing of the links between tensions and transformation outcomes. Such instruments, once established, could be deployed in survey-based or mixed-methods studies to assess impacts on cycle time, escalation frequency, dependency resolution, and long-term persistence of agile practices (Chen, Martins, Zhang, & Dong, 2025). Multi-level modeling approaches may be especially revealing, given that managerial tensions are experienced simultaneously at team, program, and portfolio levels.

Building on the synthesis presented here, this study also proposes testable propositions for empirical validation. For example, the delineation of middle-manager decision rights is expected to be positively associated with the normalization of agile practices, while compatibility between enterprise architecture guardrails and team autonomy should reduce escalation and rework. The presence of formal integration roles such as triads or release train engineers is anticipated to accelerate dependency resolution, while shifting from activity-based to value-based metrics should improve the persistence of agile practices beyond the second year of transformation. These propositions are intentionally framed to invite future testing and, collectively, they create a pathway for cumulative knowledge building.

At the same time, the review acknowledges several limitations. Restricting the dataset to studies published between 2019 and 2025 ensured recency and relevance but inevitably excluded earlier foundational works and non-English contributions. The dataset was composed primarily of peer-reviewed journal and conference papers, supplemented by one practitioner-oriented capstone report (Wright, 2018), which provides contextual depth but lacks the rigor of peer-reviewed scholarship. Moreover, the dominance of case-based studies constrains generalizability. Future research should broaden the sample across geographies and sectors, incorporate quantitative and longitudinal designs, and develop validated measures that allow replication and meta-analytic synthesis (Hutter, Brendgens, Gauster, & Matzler, 2025).

Collectively, these research directions and propositions emphasize that clarifying and strengthening the paradoxical mandate of middle managers is not only a

practical necessity but also a scholarly frontier. Without such clarity, agile transformations risk faltering at the intersection of autonomy and control. By consolidating recent evidence, proposing a structured framework, and articulating a focused research agenda, this study offers both a roadmap for future scholarship and actionable guidance for organizations striving to sustain agility at scale.

To complement the conceptual framework, the study translates each domain of managerial tension into concrete implications for practice. In the domain of leadership and authority, managers face the paradox of reconciling hierarchical expectations with the need to empower teams. Addressing this requires leadership development and coaching programs that train middle managers to navigate such contradictions rather than revert to command-and-control routines. In the area of decision-making and governance, the tension lies between centralized compliance requirements and decentralized team autonomy. Organizations can respond by redesigning governance processes so that enterprise architecture guardrails coexist with team-level flexibility, thereby reducing unnecessary escalation and rework.

Coordination and integration present a further challenge, as system-level interdependence often clashes with the independence of agile teams. Practical interventions here include creating cross-functional arenas and appointing integrators such as triads, release train engineers, or architecture owners who can accelerate dependency resolution. Finally, performance and sustainability capture the paradox between short-term efficiency metrics and long-term value creation. Transformations that remain anchored in activity-based measures such as velocity risk stalling, whereas those that shift toward outcome-oriented metrics, customer satisfaction, renewal revenue, or reliability are more likely to persist beyond initial adoption.

Collectively, these research directions and propositions emphasize that clarifying and strengthening the paradoxical mandate of middle managers is not only a practical necessity but also a scholarly frontier. Without such clarity, agile transformations risk faltering at the intersection of autonomy and control, as decision rights remain ambiguous and integration mechanisms erode over time. By consolidating recent evidence from fifteen sources including fourteen peer-reviewed studies and one practitioner-oriented report, this study provides a

structured framework and a focused research agenda that invite both empirical validation and theoretical extension. These insights, taken together, set the stage for the concluding reflections, where the contributions of this work are restated and its significance for both theory and practice is highlighted.

## 5. Conclusion

This paper has examined the paradoxical role of managers in large-scale agile transformations by synthesizing evidence from fifteen recent sources (2019–2025), including fourteen peer-reviewed studies and one practitioner report. The review identified four recurring domains of managerial tension, leadership and authority, decision-making and governance, coordination and integration, and performance evaluation and sustainability. Synthesizing these insights, the study proposed a conceptual framework that positions middle managers as brokers of paradox, highlighting their central role in mediating contradictions that define organizational life during transformation.

The originality of this work lies in its focus on the managerial dimension. Unlike earlier reviews that mapped broad challenges in scaling agile (e.g., Dikert, Paasivaara, & Lassenius, 2016; Uludağ et al., 2022), this study concentrates specifically on the paradoxical mandate of middle managers and extends paradox theory into this context. By doing so, it develops a typology of managerial tensions, introduces a framework that clarifies the integrative role of managers, and advances a research agenda with testable propositions for future inquiry.

From a scholarly perspective, the framework enriches theoretical discourse by clarifying how paradox theory can illuminate the ambiguous and sometimes contradictory expectations faced by managers. It also contributes to organizational agility research by offering a structured lens for examining how tensions propagate across different organizational levels. From a practical perspective, the framework provides actionable guidance for organizations undertaking enterprise-wide agile adoption. By clarifying the mandate of middle managers, it highlights the importance of role coaching, governance redesign, and outcome-oriented performance systems in sustaining transformation momentum. Organizations that neglect this dimension risk undermining their own initiatives: unresolved tensions at the managerial level can stall progress, reintroduce command-and-control

behaviors, or create misalignments between strategy and execution that ultimately jeopardize the transformation itself. By clarifying the managerial mandate, the framework helps organizations avoid the recurring pattern of stalled transformations, regression to command-and-control, and erosion of agile culture.

Ultimately, the study underscores that the success of large-scale agile transformations depends less on the choice of scaling framework and more on how effectively managers are equipped to act as brokers of paradox. Reframing the managerial role in this way provides a pathway for organizations to avoid the recurrent failures that have marked many transformation programs. By consolidating recent evidence, proposing a structured framework, and articulating a forward-looking research agenda, this paper offers both a roadmap for scholarship and a set of actionable insights for practitioners striving to embed agility at scale.

**Scholarly and Practical Significance.** The proposed framework offers a testable basis for future research and a practical guide for executive education, PMO design, and enterprise governance. By clarifying the “unclear mandate” of middle managers, the study provides actionable levers for leaders seeking to sustain agility beyond initial adoption.

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### Institutional Review Board Statement

Not applicable. This study is a literature review and did not involve human subjects.

### Informed Consent Statement

Not applicable. This study did not involve human participants.

### Data Availability Statement

No new data were created or analyzed in this study. Data sharing is not applicable to this article.

### Conflicts of Interest

The author declares no conflict of interest.

### Use of AI Tools

Digital tools were used to support language editing and formatting. All analysis, synthesis, and conclusions are the sole responsibility of the author.

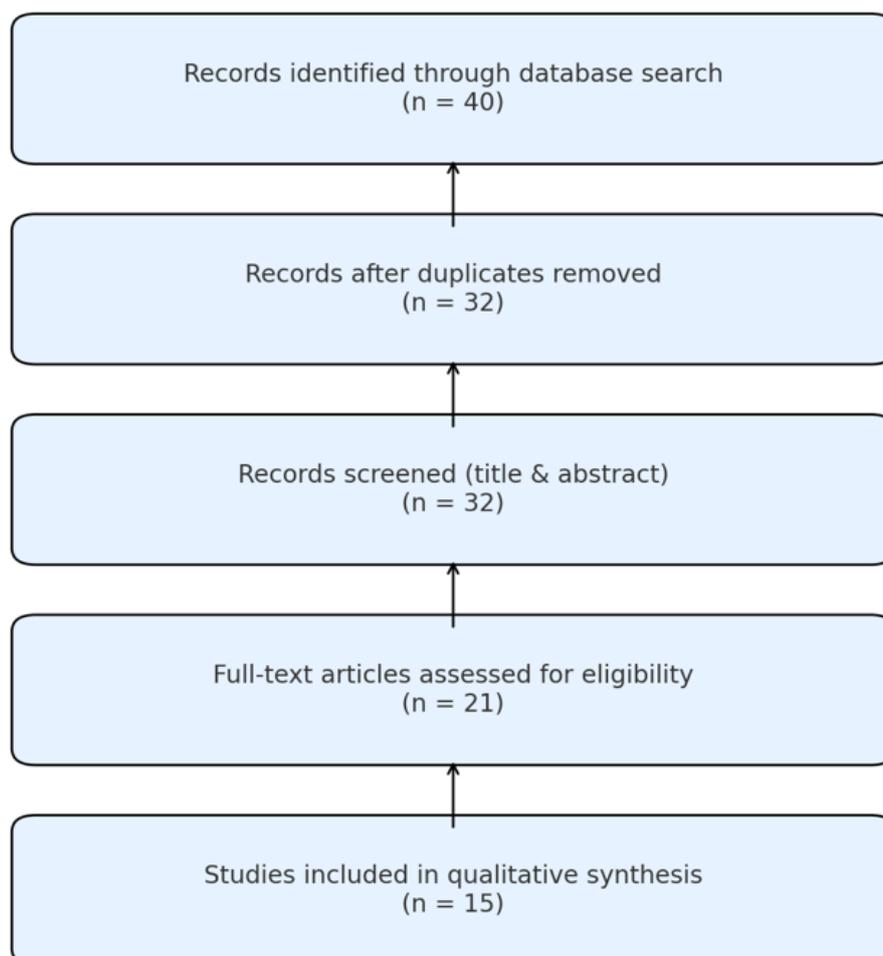
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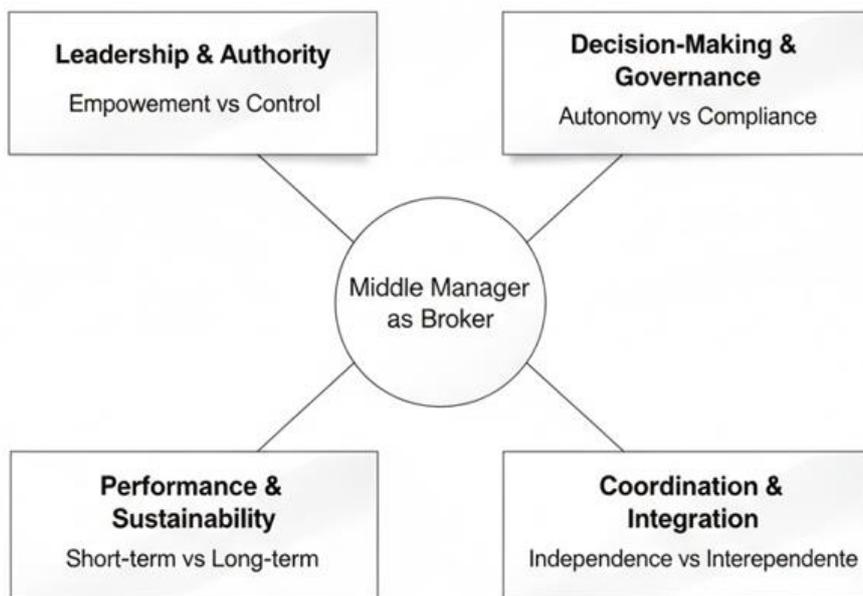
**Figure**



**Figure 1. PRISMA flow diagram showing the selection of studies for the review**

## Conceptual Map Linking Paradox Theory, Dynamic Capabilities, and Managerial Tensions

Paradox Theory (Lewis 2000; Smith & Lewis 2011)



Dynamic Capabilities

(Teece et., 2016)

Figure 2. Conceptual map linking paradox theory, dynamic capabilities, and managerial tensions.

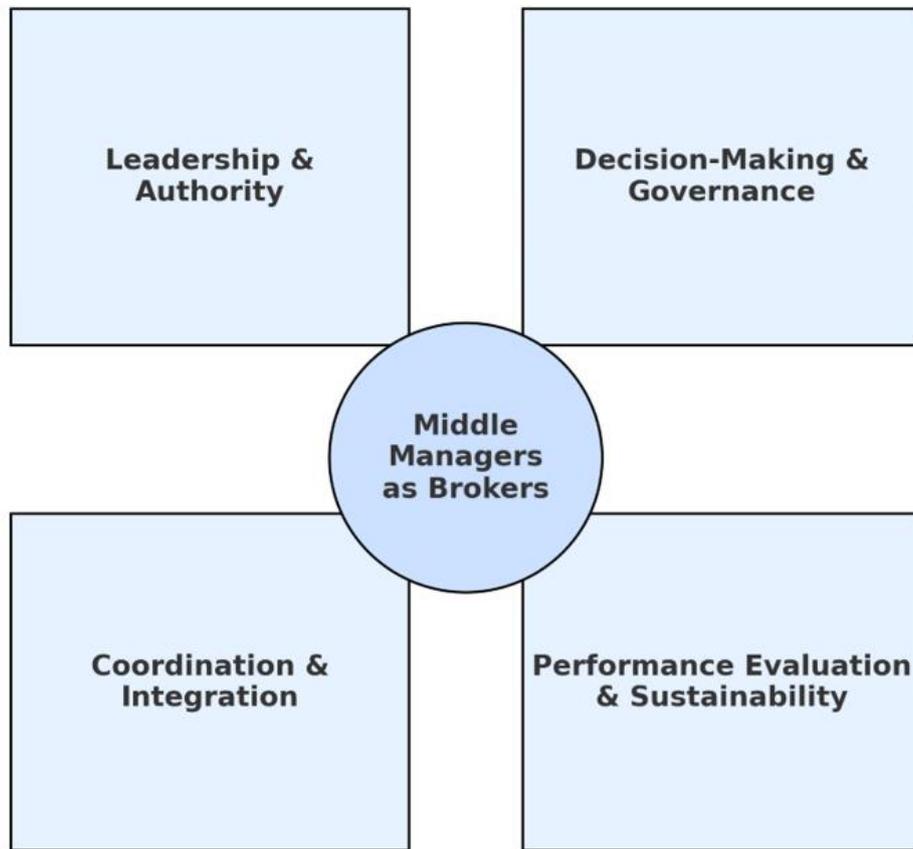


Figure 3. Conceptual framework of managerial tensions in large-scale agile (four domains; middle managers as brokers)

**Appendices**

**Appendix A – Data Extraction Form**

The following template was used to extract and organize data from each included study:

| Attribute           | Description                                       | Example Entry                                   |
|---------------------|---|---|
| Author(s), Year     | Citation details                                  | Strode et al., 2022                             |
| Publication Type    | Journal / Conference / Book Chapter               | IEEE Transactions on Engineering Management     |
| Research Method     | Case study, survey, systematic review, conceptual | Case study                                      |
| Context             | Industry, organization, or domain studied         | Public organizations (UK)                       |
| Managerial Tensions | Key challenges related to management              | Authority vs autonomy; top-down vs bottom-up    |
| Key Findings        | Main insights reported                            | Identified 13 tensions; applied paradox theory  |
| Implications        | Relevance to practice or research                 | Paradox navigation critical for middle managers |

This form ensured consistency across the review process and enabled systematic coding into thematic categories.

Here’s the **Study Quality Appraisal Table** for all 15 papers. It shows ratings for relevance, context, method transparency, scholarly credibility, and the overall quality classification (High/Moderate).

**Appendix B. Study Quality Ratings**

Each of the 15 included studies was evaluated against four criteria: relevance, contextual clarity, methodological transparency, and scholarly credibility. Scores were categorized as High, Moderate, or Low for each dimension, and an overall rating was assigned. All retained studies met the minimum quality threshold, with most rated High and a few rated Moderate. This appraisal confirms that the dataset is both credible and representative for synthesis.

**Matplotlib Chart**

**Table B1**

*Quality appraisal of included studies across four criteria*

| Author(s), Year          | Rel. | Context | Method | Cred. | Overall |
|--------------------------|------|---------|--------|-------|---------|
| Strode et al., 2022      | H    | H       | H      | H     | H       |
| Carroll et al., 2023     | H    | H       | H      | H     | H       |
| Bremer, 2024             | H    | H       | M      | H     | H       |
| Grundler & Westner, 2019 | H    | M       | M      | H     | M       |
| Chen et al., 2025        | H    | H       | H      | L     | M       |
| Wright, 2018             | M    | M       | L      | L     | M       |
| Moe & Mikalsen, 2020     | H    | H       | H      | H     | H       |
| Uludağ et al., 2020      | H    | H       | H      | H     | H       |
| Verwijs & Russo, 2023    | H    | H       | H      | M     | H       |
| Ågren et al., 2022       | H    | H       | H      | H     | H       |
| Dingsøyr et al., 2022    | H    | H       | H      | H     | H       |
| Sońta-Drączkowska, 2024  | H    | H       | H      | H     | H       |
| Van Wessel et al., 2022  | H    | H       | H      | H     | H       |
| Hüllmann, 2024           | H    | H       | H      | H     | H       |
| Poth et al., 2019        | M    | M       | M      | M     | M       |

**Note.** Rel. = Relevance; Context = Contextual Clarity; Method = Method Transparency; Cred. = Scholarly Credibility. Ratings: H = High, M = Moderate, L = Low. Two reviewers independently assessed study quality; disagreements were resolved through discussions