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Unpacking Resilience in Public Administration: Insights From a Meta-Narrative Review

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ABSTRACT

Increasing environmental complexity and uncertainty have made organizational resilience a key concern in public administration. Yet its inherent ambiguity calls for a systematic examination of its conceptualizations, operationalizations, and applications. This meta-narrative review synthesizes 49 studies, advancing the discourse by identifying three distinct narratives—maintenance, recovery, and adaptability—and exploring how they intersect when public institutions encounter acute shocks versus slow-burn disturbances. Our analysis further identifies networking and collaboration as the most frequently studied antecedents of resilience, followed by digital technology and leadership. Resilience outcomes are also highlighted—continuous service delivery, enhanced public policy value, and strengthened institutional identity. A key epiphany emerges: Resilience is not merely about responding to crises but also about embedding strategic principles into long-term governance—balancing top-down authority with decentralized decision-making to functionally and structurally address short-term needs and long-term transformation. We conclude by identifying implications for research, practice, and education.

1 | Introduction

In a world increasingly shaped by crises, resilient governance is no longer merely a theoretical ideal but a vital necessity. From the devastating wildfires in California and violent incidents in New Orleans to the global upheaval of the COVID-19 pandemic, disruptive events have laid bare the vulnerabilities of governing systems (Dzigbede et al. 2020). These crises reveal systemic deficiencies in coordination mechanisms, resource allocation, and adaptive capacity, while hidden issues such as growing inequality and environmental changes could also become catastrophic if neglected. Recent studies further demonstrate how uneven local administrative capacity and divergent city-level adaptation pathways shape governments' ability to pursue climate resilience, reinforcing the need for governance-level analysis across diverse contexts (Smith et al. 2025; Kim 2025). Predominantly

designed for stability and predictability, traditional governance approaches often prove inadequate in addressing these complex, interconnected challenges. Building resilient systems requires robust coordination across political, policy, and administrative domains, with public managers playing a central role across levels of governance (Berthod et al. 2017; Lenz and Eckhard 2023). Although resilience has been prominently championed in global frameworks, most notably in the UN Sustainable Development Goals and in urban resilience alliances exemplified by MCR2030, public administration research has remained conceptually fragmented and operationally inconsistent, necessitating deeper theoretical and empirical inquiry.

Resilience is a multidimensional concept with deep roots in public administration and adjacent fields. Long before the term “resilience” gained prominence in governance studies,

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Evidence for Practice

- Achieving resilience is a nonlinear interplay of maintenance, recovery, and adaptability—public institutions must balance short-term stability with long-term flexibility.
- Resilience is strengthened through networking, collaboration, digital tools, visionary leadership, and civic engagement, yet undermined by excessive privatization or bureaucratic rigidity.
- Building resilient institutions requires tailoring responses to crisis types: prioritize functional/structural stability for acute shocks; balance continuity-adaptation for slow-burn challenges.
- While centralized control enables quick responses, resilient governance flourishes in decentralized structures empowering local decision-making, self-organization, and long-term organizational transformation.
- To enhance adaptability and the sustained effectiveness of institutions, policymakers must incorporate resilience into long-term governance frameworks by prioritizing cross-sector collaboration, strategic foresight, and digital capacity.

scholars examined closely related ideas such as institutional adaptability, risk anticipation, redundancy, and error management (Wildavsky 1988; Ostrom 1990; Hood 1991; Frederickson and LaPorte 2002; O’Neil and Krane 2012; Toonen 2010). These intellectual lineages constitute important conceptual predecessors to contemporary resilience thinking. In this article, however, we focus specifically on the body of work that explicitly identifies itself as part of the “resilience” discourse within public administration.

More recent studies have extended resilience thinking to diverse governance contexts, ranging from disaster management (Demiroz and Haase 2019) to collaborative governance (Quick and Feldman 2014) and community building (Ge 2023). Yet this expansion has also produced fragmentation, as institutional logics and performance frameworks diverge across policy sectors (Vikstedt and Vakkuri 2025). Systematic reviews in adjacent disciplines, such as education, health policy, and crisis management, further demonstrate how resilience is often defined in incompatible ways, making cross-sector knowledge accumulation difficult (Biddle et al. 2020; Williams et al. 2017).

This fragmentation is more than a terminological issue. When concepts evolve in separate silos, they gradually drift in meaning, limiting our ability to build shared definitions, identify common mechanisms, or establish comparable evaluative standards across public-sector domains. Precisely because these divides run across sectors, the governance level offers a meaningful integrative vantage point. Issues such as coordination, decision-making, accountability, and institutional design are universal governance concerns, cutting across health, education, emergency management, and other fields. Framing resilience at the governance level therefore allows sector-specific insights to be

linked to broader institutional capacities, providing a coherent basis for comparing, synthesizing, and advancing resilience scholarship.

This article thus provides the first field-specific overview and integration of diverse resilience studies in public administration. Using a meta-narrative review approach (Greenhalgh et al. 2005) grounded in Kuhn’s (1962) paradigm analysis, we examine how different research traditions in public administration have approached similar issues in contrasting yet complementary ways. We trace the evolution of resilience scholarship across subfields by highlighting how concepts, methods, and assumptions have developed over time. We also identify both tensions and complementarities among diverse perspectives and subfields. Three key questions we seek to address are:

1. How is resilience conceptualized in public administration?
2. How do public institutions operationalize resilience in their structures and practices?
3. What strategies can enhance institutions’ resilience in response to emerging challenges?

Our meta-narrative analysis uncovers three distinct yet interconnected narratives about resilience in public administration: *maintenance, recovery, and adaptability*. The maintenance narrative emphasizes preserving system stability through standardized protocols and resource redundancy. The recovery narrative prioritizes restoring equilibrium after disruptions through coordinated responses and resource mobilization. The adaptability narrative promotes transformative change through learning and innovation. These narratives, originating from different research traditions, are neither sequential phases nor isolated responses. Instead, public institutions strategically integrate them to navigate crises of varying intensities and durations.

Noteworthily, acute shocks—for instance, natural disasters—require a Maintenance-Recovery Mix to sustain service continuity and rapid crisis responses (An and Tang 2020). Slow-burn challenges, like demographic shifts or technological transitions, demand a Recovery-Adaptability Mix or Maintenance-Recovery-Adaptability Mix to foster long-term learning and policy evolution. Each mix typically triggers a specific governance mode—*Crisis Response, Emergency Centralization, Incremental Adjustments, or Polycentric Adaptation*. By analyzing the interactive dynamics between these resilience mixes and governance modes, our framework stresses that resilience is not a fixed institutional attribute but a continuous process of aligning governance strategies with environmental demands. Even institutions with comparable resources may exhibit widely divergent resilience outcomes, depending on their institutional design, governance capacity, and political commitment (Hayek 1967). Effective resilience governance hinges on an institution’s ability to leverage governance flexibility, embed adaptive learning mechanisms, and navigate the trade-offs between centralized authority and decentralized innovation in addressing different types of disturbances.

By linking different mixes of narratives (maintenance, recovery, and adaptability) to types of shocks (acute versus

slow-burn) and relevant institutional functions and structures, we develop a conceptual framework that offers a novel approach to synthesizing research in governance resilience. While based partly on existing theoretical perspectives, the development of this framework is aided by our meta-review analysis, which inspires us to move beyond linear models prevalent in adjacent fields (e.g., models that explicitly or implicitly assume a progression from preparedness to response to recovery) by framing resilience as a dynamic, strategically integrated governance capacity. While prior research has acknowledged contextual variations, our framework provides a structured basis for comparative analysis across governance settings—a dimension largely underdeveloped in earlier reviews. Our framework can also serve as a diagnostic tool that links resilience configurations to distinct governance modes, proposing targeted recommendations for institutional design and policy implementation.

Alongside the development of a new conceptual framework, this study also advances our understanding of governance design by examining the structural and operational conditions that enable or constrain resilience-building. In contrast to prior syntheses that highlight general enablers such as collaboration and digital infrastructure, we specify how these factors function differently across resilience narratives and crisis types, highlighting trade-offs that shape governance capacity (Mayne et al. 2020). Specifically, networking and collaboration, supported by digital technologies and leadership, are the most critical antecedents of resilience, as seen in successful multi-jurisdictional responses to regional disasters. Conversely, privatized service delivery and bureaucratic constraints often undermine resilience. At the actor level, resilience governance is inherently multi-scalar, requiring coordination across national, regional, and local levels. Effective resilience strategies rely not only on top-down policy directives but also on bottom-up problem-solving, where public managers, frontline employees, and civic organizations work in tandem to drive institutional adaptation. Finally, resilience must be repositioned as a core public value, embedded alongside efficiency, accountability, and equity in governance to ensure responsiveness to crises and capabilities for long-term transformation (Ventriss et al. 2019).

Collectively, these conceptual innovations and a more contextualized synthesis of existing empirical findings help move the literature from descriptive accounts toward a comparative and operational perspective on resilience in public administration. This article concludes with strategic recommendations that synthesize these insights into a coherent, governance-centered model, with implications for research, practice, and education.

The article proceeds as follows: First, it introduces the meta-narrative review methodology. Next, it synthesizes resilience narratives and their manifestations in public institutions. After examining how these narratives intersect, it organizes the resulting insights into a governance framework structured by two key dimensions: a functional versus structural focus and acute versus slow-burn challenges. Subsequently, it explores the antecedents, effects, actors, and challenges of resilience in public administration. The article concludes with implications and future research directions.

2 | Method

Rooted in Kuhn's (1962) paradigm analysis, the meta-narrative review methodology provides a structured approach to examine how complex concepts are conceptualized, operationalized, and debated across different research traditions. A meta-narrative review differs from (1) systematic reviews, which aggregate quantitative findings, (2) meta-analyses, which statistically aggregate effect sizes, and (3) narrative reviews, which offer descriptive summaries. Instead, a meta-narrative review compares and contrasts entire research traditions. It traces how different traditions have conceptualized and debated a topic over time, with each meta-narrative reflecting a shared paradigm defined by internal logic, quality standards, and ongoing intellectual contestation. By surfacing tensions between paradigms, this approach enables synthesis across fragmented literatures. Hence, the approach is particularly valuable for governance topics marked by conceptual pluralism and porous disciplinary boundaries.

A meta-narrative review is especially useful for examining resilience in public administration because the concept has been shaped by diverse disciplinary traditions. Engineering approaches emphasize stability and recovery, while ecological perspectives foreground adaptation and transformation. These intellectual lineages have informed how scholars conceptualize and measure resilience, resulting in varying definitions, models, and methodological expectations. As a consequence, resilience research in public administration has taken shape through several distinct scholarly narratives—patterns that conventional review techniques often struggle to capture or integrate. The meta-narrative approach addresses this challenge by tracing the historical development of resilience thinking, comparing competing traditions, and synthesizing them into a coherent framework tailored to public administration. To render this complexity analytically tractable, our review situates organizational resilience as the primary level of analysis, while recognizing that individual (e.g., street-level bureaucrats) and governance-level resilience operate as embedded mechanisms shaping organizational capacity. Instead of being independent analytical units, different levels act as interdependent components for enacting and sustaining organizational resilience across varying crisis contexts.

By following the Realist and Meta-narrative Evidence Synthesis: Evolving Standards (RAMESSES) protocol (Wong et al. 2013), we adopted a structured multi-step procedure involving scoping, searching, screening, coding, mapping, and synthesis. This process was guided by three principles—historicity, pluralism, and pragmatism—with further explanation provided in Appendix A.

We undertook a two-step query of Web of Science and Scopus, combining general terms such as “resilien* AND public administration/public sector” with specific terms like “resilient governance” and “resilient government.” By including only English-language, peer-reviewed journal articles indexed by SSCI, ESCI, or SCIE, the search conducted in January 2024 yielded 2059 articles.

Articles were screened by title, abstract, and full text using defined inclusion and exclusion criteria (see Appendix A, Table A1). We retained studies published in public administration journals

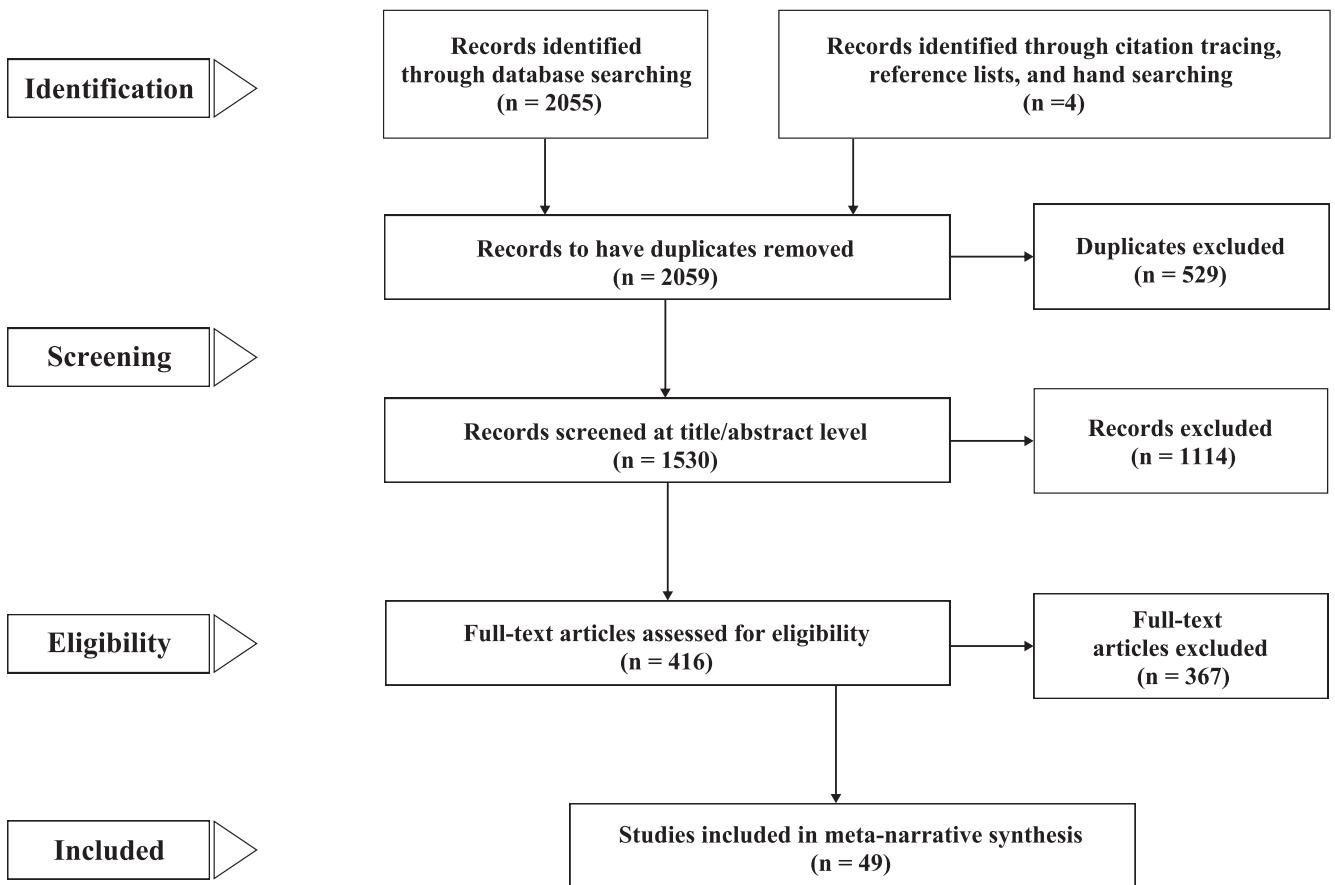


FIGURE 1 | Generating the meta-narrative review dataset.

that treated resilience as a primary conceptual focus. This focus reflects the aim of our review, which is to trace how resilience has been defined, debated, and operationalized within the self-identified resilience discourse in public administration. Although closely related theories, such as high-reliability organizations, early crisis governance, and influential works like Duit (2016) and Boin and van Eeten (2013), engage concepts that resonate strongly with resilience, they do not explicitly situate their arguments within the self-identified resilience discourse. For this reason, these studies informed the conceptual groundwork of our review but were not included in the coded dataset. To preserve analytical consistency within the meta-narrative framework, we limited the dataset to English-language, peer-reviewed journal articles that explicitly use the term “resilience,” while excluding literature reviews, policy reports, books, and non-English sources. Additional relevant studies were identified through snowball sampling to ensure adequate coverage of the field. The final dataset consists of 49 empirical studies published between 1992 and 2024 (listed in Appendix C). Several recent *Public Administration Review* (PAR) publications addressing resilience-related issues appeared after the cut-off date of our initial coding. They were not incorporated into the coded dataset but were referenced briefly in various parts of the paper. The full screening and selection process is illustrated in Figure 1.

The coded studies are complemented by supplementary works that provide theoretical grounding and help situate the findings within a broader governance context. These

supplementary references include conceptual antecedents such as high-reliability organizations, crisis governance scholarship, and adjacent governance literatures on coordination, learning, and polycentricity. These works inform the theoretical framing of resilience at the governance level but were not included in the coded dataset because the coding procedure required sources in which resilience was explicitly defined, operationalized, and examined in a manner suitable for systematic comparison. Accordingly, the reference list draws on two sets of sources: coded core studies, which form the empirical basis of the synthesis, and the supplementary references provided in the *Supporting Information*, which offer additional conceptual and contextual breadth.

Based on the core dataset, we applied a structured coding protocol to systematically analyze each study's contribution to the meta-narrative synthesis. We categorized each study by resilience definition (e.g., maintenance, recovery, adaptability), research context, actor focus, methodological approach, role of resilience (independent or dependent variable), research setting (e.g., crisis management, governance reform), theoretical framing, and key conceptual contributions (Appendix A, Table A2).

The coded themes were then systematically compared to identify recurring patterns in how studies conceptualize and operationalize resilience (Appendix A, Table A3). Through constant comparison across definitions, methods, and analytical foci, three coherent clusters emerged: studies emphasizing system stability

TABLE 1 | Features of the resilience narratives.

Trait	Meta-narratives		
	Meta-narrative 1	Meta-narrative 2	Meta-narrative 3
Resilience definition	Maintenance	Recovery	Adaptability
Role of resilience	As dependent variable	As dependent variable	As dependent variable
Value orientation	<u>Rule-based</u> : an approach embodying a fundamentally conservative coping strategy	<u>Natural-based</u> : an approach entailing meticulously elucidating the core issues and navigating through conflicts and perturbations to restore societal equilibrium and order	<u>Open-based</u> : an approach underscoring capacities of learning, adaptation, transformation, and flourishing
Generic research question	How do public institutions ensure systems remain stable?	How can public institutions re-establish an equilibrium?	How can public institutions adapt, transform, and flourish amidst uncertainty?
Aim	Maintaining existing capabilities against disruption	Recovering to an equilibrium after crises	Adapting to better handle future challenges
Major actors	local government and public employees	Non-government actors	Public employees
Relevant theories	Collaboration; public–private partnership; open system theory	Disaster management; e-government; collaborative governance; network theory; coproduction	Disaster management; leadership theory; network theory; co-creation; digital innovation theory
Original discipline	Engineering and physical sciences	Ecology	Social-ecological systems

and rule-bounded continuity (maintenance), the restoration of disrupted functions (recovery), and adaptive or transformative capacity under complexity (adaptability). These empirically grounded clusters form the basis of our meta-narrative synthesis. Table 1 summarizes how each narrative emerges from these recurring themes and how it is expressed across different research contexts.

The substantial variation in how resilience is conceptualized and operationalized across studies necessitates the development of a two-dimensional governance framework, which integrates empirical coding patterns with conceptual distinctions in the literature. This analysis revealed recurring emphases on various aspects of service function and institutional structures—service continuity, institutional stability, innovation mechanisms, and cross-level coordination—that resonate with prior governance frameworks (Duit 2016). Another key observation was a temporal dimension: some studies addressed resilience in short-term disruptions (e.g., natural disasters, pandemics), while others examined responses to gradual and long-term stressors (e.g., demographic shifts, environmental degradation, institutional erosion). These time-based distinctions echo the widely recognized categories of acute shocks and slow-burn challenges, reflected in both academic literature (e.g., LaPorte 2007) and real-world

events such as the COVID-19 pandemic. Together, these two dimensions form the analytical basis for our governance framework, which organizes the four modes subsequently presented in Table 2. A detailed account of the search strategy, selection criteria, and dataset characteristics is presented in Appendices A and B.

3 | Meta-Narrative 1: Resilience as Maintenance

Originating from engineering disciplines, the first narrative conceptualizes resilience through the lens of maintenance. It emphasizes a system's ability to withstand disturbances and maintain functionality, thereby preventing catastrophic failures (Elston and Bel 2023). In this view, resilience in public administration encompasses four interrelated properties (Williams et al. 2017). Robustness concerns the ability to withstand shocks without losing function, while resourcefulness reflects the capacity to diagnose problems and mobilize solutions under stress. Redundancy ensures that alternative arrangements can sustain operations when primary systems fail, and rapidity captures the speed with which actors restore essential services. These properties articulate the multiple dimensions through which resilience is enacted in public organizations.

TABLE 2 | Integrating resilience narratives into governance modes.

Disturbance type	Service function	Institutional structure
Acute shocks (sudden and high-impact disruptions)	<p>Crisis response mode (Maintenance-recovery mix)</p> <ul style="list-style-type: none"> Preserve core operational capacity and ensure continuity of essential services Rapidly restore interrupted services and reallocate resources Short-term, high-intensity intervention with limited systemic reform 	<p>Emergency centralization mode (Maintenance-recovery mix)</p> <ul style="list-style-type: none"> Reinforce command structures and decision-making authority Stabilize institutional frameworks to maintain governance continuity Short-term concentration of power to prevent administrative collapse
Slow burns (gradual and persistent challenges)	<p>Incremental adaptation mode (Recovery-adaptability mix)</p> <ul style="list-style-type: none"> Implement gradual policy adjustments and institutional reforms Enhance system capacity through continuous learning Policy continuity with measured transformation 	<p>Polycentric adaptation mode (Maintenance-recovery-adaptability mix)</p> <ul style="list-style-type: none"> Decentralized governance for multi-actor resilience Distributed decision-making across different governance levels Long-term, system-wide institutional flexibility and innovation

This engineering tradition raises a crucial question: “How do public institutions ensure systems remain stable?” The answer is premised on rule-based thinking that prioritizes procedural compliance and standardized protocols to sustain institutional operations. Studies have identified various contributors to rule-based maintenance. Digital technologies are critical enablers (Dunleavy et al. 2006), with relevant infrastructure supporting operational continuity during disruptions (Irmayani et al. 2022; Mamedieva and Moynihan 2023). Individual characteristics such as digital literacy and work autonomy help maintain service delivery (Fischer et al. 2023). Inter-organizational collaboration further strengthens maintenance (Quick and Feldman 2014; Elston and Bel 2023) and resource allocation across regions and departments (Kahn et al. 2018; Deslatte et al. 2020).

While ensuring continuity under normal conditions, procedural compliance raises concerns about the trade-off between redundancy and efficiency in maintaining resilience. In contrast to efficiency-driven managerial approaches that focus on performance optimization and cost reduction, maintenance resilience emphasizes redundancy, routine procedures, and institutional stability as key to sustaining governance capacity.

In frontline public service delivery, public employees and local governments must navigate procedural mandates while exercising discretion. Street-level bureaucrats, often constrained by rigid institutional mandates designed to ensure consistency and accountability, develop workarounds and informal practices to sustain service continuity and uphold professional roles in unpredictable conditions (Monties and Gagnon 2024). Within the maintenance narrative, such individual adaptations underscore a recurring institutional dilemma, whereby the very procedural stability that ensures continuity can also constrain innovation and flexible problem-solving in public service delivery. While rule-based stability ensures short-term effectiveness, excessive rigidity can create path dependencies that reduce agility (Monties and Gagnon 2024; Nolte and Lindenmeier 2024)

and exacerbate social inequities, particularly for marginalized communities.

4 | Meta-Narrative 2: Resilience as Recovery

The second narrative conceptualizes resilience through the lens of recovery, drawing insights from ecological systems theory and challenging the assumption that systems must revert to their pre-disturbance state. Recovery resilience recognizes that systems may, and often must, establish an entirely new equilibrium when disturbances surpass critical thresholds. This recognition represents a pivotal evolution in public administration, refocusing from maintenance to dynamic recovery and acknowledging that returning to a previous state is often neither feasible nor desirable in rapidly changing environments.

In this narrative, recovery speed is key to resilience (Boin and Lodge 2016). Given this recovery-centric perspective, a central question emerges: “How can public institutions re-establish equilibrium?” The answer manifests in natural-based resilience thinking, which advocates for a proactive, system-wide approach to restore balance during complex disturbances. Successful recovery hinges on robust institutional frameworks that coordinate and sustain recovery efforts (Lucio and McFadden 2017), and network collaboration that facilitates knowledge-sharing and resource pooling (Oh and Lee 2022). Such collaborative frameworks are supported by financial resources for rapid mobilization (Sciulli et al. 2015) and technological infrastructure, especially government-sponsored digital platforms for service delivery recovery (Zou 2024; Levesque et al. 2024).

While effective, recovery-oriented resilience alone remains insufficient to address the full complexity of contemporary governance challenges. Specifically, recovery efforts often falter when private contractors prioritize profit over systemic resilience, resulting in fragmented and unsustainable outcomes (Cedergren et al. 2018). Additionally, inflexible administrative processes

hinder efforts to meet the dynamic demands of recovery (Sciulli et al. 2015). Moreover, contemporary challenges, such as climate change, digital transformation, and socio-economic inequalities, necessitate resilience strategies that extend beyond recovery to encompass systemic adaptation and transformation (Clement et al. 2023). This growing recognition has catalyzed a paradigm shift toward transformative resilience that prioritizes long-term adaptability over short-term restoration, thus anticipating the third meta-narrative.

5 | Meta-Narrative 3: Resilience as Adaptability

The third narrative shifts resilience from maintenance and recovery toward continuous adaptation and transformation. In public administration, rigid maintenance strategies often lead to inflexibility and vulnerability to disruptions. Similarly, recovery strategies for restoring equilibrium struggle to keep pace with the accelerating and interconnected nature of modern risks. Drawing on social-ecological systems theory (Holling and Gunderson 2002; E. Ostrom 2009) and complex adaptive systems theory (Preiser et al. 2018), this narrative frames adaptability not as optional but essential for addressing the complexities and unprecedented change confronting public institutions. This shift prompts a critical question: “How can public institutions adapt, transform, and flourish amidst uncertainty?”

One response lies in open-based thinking of resilience, advocating for polycentric governance. This approach leverages interdependent decision-making units to enhance adaptability through localized innovation, knowledge diffusion via horizontal networks, and multi-level learning in layered governance structures (V. Ostrom and Ostrom 1971; Cedergren and Hassel 2024). Polycentric governance enhances local accountability by decentralizing decision-making authority, fostering responsiveness, and tailoring solutions to community needs. Furthermore, a polycentric system encourages adaptive experimentation, allowing smaller initiatives to be tested and refined before scaling up. It also energizes civic engagement by actively involving citizens and local stakeholders in governance (Aligica 2019; Tang 2021; Leite and Hodgkinson 2023).

Technological advancements continue to accelerate adaptability, particularly within the public sector, where investments in cutting-edge information and communication technologies (ICTs) promote innovation and transformation (Ge 2023). In turn, resilience itself facilitates organizational evolution, fostering broader external networking and deeper internal resource diversification (Dalgaard-Nielsen 2017). At the individual level, civil servants' capacity to adapt and respond to uncertainty is strengthened by organizational support systems and paradoxical leadership (Franken et al. 2020; Plimmer et al. 2022; Danaeefard et al. 2022), while organizational ambiguity and complexity may hinder these capacities (Plimmer et al. 2023).

Although promising, the adaptability narrative has drawn criticisms. Some argue that resilience rhetoric risks becoming a superficial policy tool, allowing governments to evade long-term planning responsibilities while exacerbating vulnerabilities among marginalized communities (Imperiale and Vanclay

2021). More fundamentally, the focus on constant adaptation may induce organizational fatigue and resource depletion. These critiques highlight that within the adaptability narrative, institutional design plays a crucial role in ensuring that adaptive resilience yields meaningful and sustainable outcomes, rather than serving as a rhetorical device that justifies institutional inertia.

6 | Mixed Narratives of Resilience

Resilience is increasingly conceptualized through interwoven narratives, as they are inherently interconnected and mutually reinforcing. Yet the mechanisms by which these dimensions interact, and the governance arrangements that enable their integration, remain underexamined. This section explores how resilience narratives mix in practice, identifies barriers to their integration, and evaluates governance frameworks that enhance their effectiveness. A central question guiding this discussion is, “How can public institutions integrate maintenance, recovery, and adaptability into a coherent and sustainable governance design?”

Nearly half of the studies in our coded dataset (45%; 22 of 49) incorporate two or more narratives, underscoring the non-linear character of resilience. Three dominant resilience mixes emerge across governance contexts (see Figure 2): maintenance-recovery, where institutions focus on ensuring immediate service continuity and crisis responses; recovery-adaptability, where the emphasis shifts toward learning and long-term transformation; and full integration (maintenance-recovery-adaptability), where institutions simultaneously preserve stability, recover from disruptions, and implement structural changes. Notably, studies combining maintenance and adaptability without recovery are rare, suggesting that adaptation typically follows a disruption-recovery cycle rather than occurring independently. A promising research question, therefore, is whether alternative pathways exist to bypass traditional recovery while preserving stability and adaptability.

Traditional resilience models, such as Duit's (2016) six-step resilience ladder and Boin and van Eeten's (2013) precursor-recovery model, depict governance responses as a sequential process, starting with crisis response, followed by recovery, and eventually adaptation. However, real-world governance rarely follows a fixed trajectory. Institutions must often grapple with crisis containment, institutional recovery, and long-term adaptation simultaneously, requiring a governance approach that integrates overlapping resilience functions. To address these complexities, we propose a two-dimensional governance framework that synthesizes empirical patterns from our coding with conceptual distinctions in the resilience literature, producing four governance modes aligned with different narrative mixes (see Table 2). The first dimension concerns the object of resilience, distinguishing between (1) institutional functions, which ensure service continuity and effectiveness (e.g., healthcare, utilities, and transportation), and (2) institutional structures, which underpin governance capacity through resource allocation, decision-making processes, authority distribution, and adaptive organizational practices (Irmayani et al. 2022; Bracci and Tallaki 2021). The second dimension addresses the type of

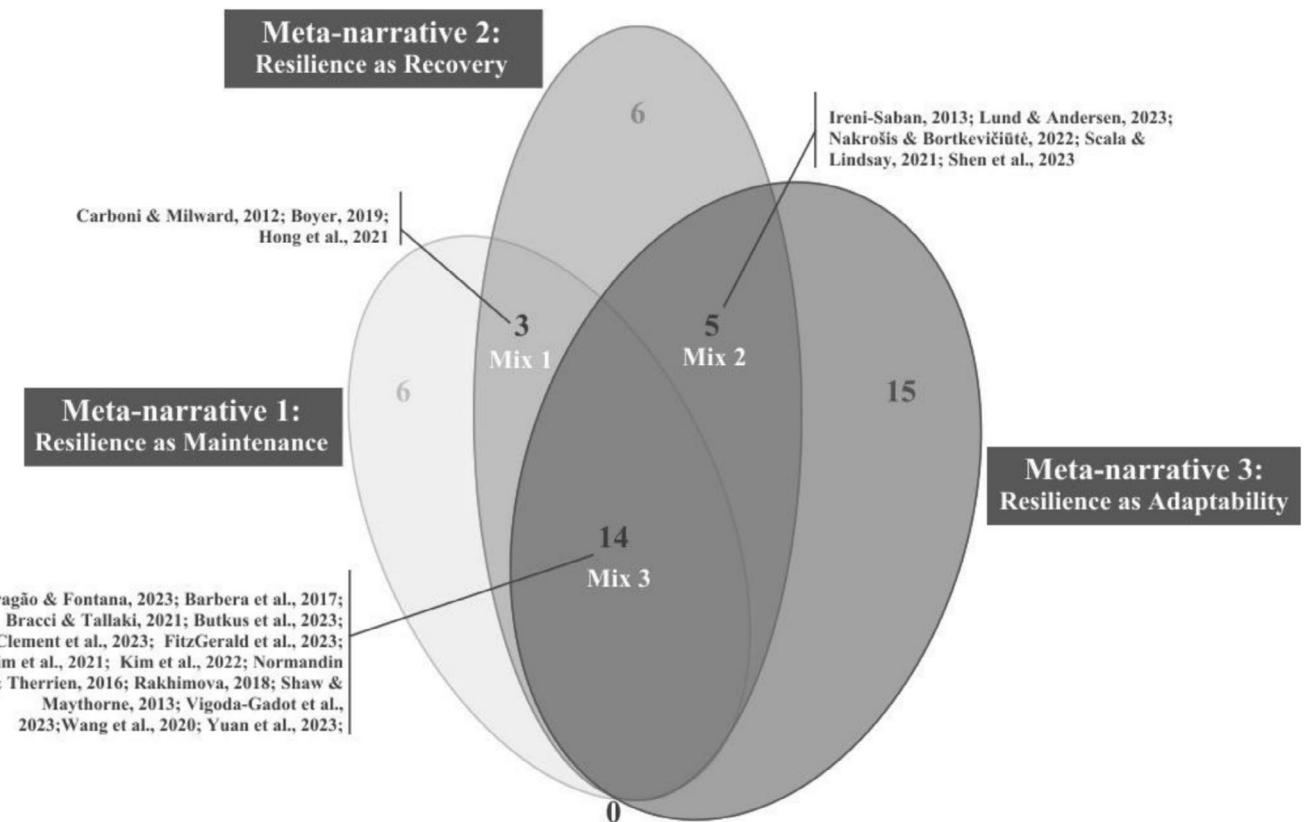


FIGURE 2 | Three meta-narratives of resilience and their mixed applications in public administration literature. The figure illustrates the distribution of articles across three meta-narratives and their combinations (Mix 1: maintenance-recovery; Mix 2: recovery-adaptability; Mix 3: maintenance-recovery-adaptability). Complete references are provided for articles in each combination category. Numbers indicate the count of articles in each category.

disturbance, differentiating between (1) acute shocks (i.e., sudden, high-intensity disruptions) and (2) slow burns (i.e., gradual, persistent challenges) (Cedergren et al. 2018; Nolte and Lindenmeier 2024).

These two dimensions interact to shape governance strategies, requiring institutions to reconcile the potential tensions between short-term crisis stabilization and long-term systemic transformation (Hayek 1973). The four governance modes in Table 2 are not rigid models but flexible categories, allowing institutions to shift between centralized crisis responses, decentralized adaptations, and incremental reforms based on crisis urgency, governance scale, and institutional capacity. In practice, governance is not a fixed trajectory but a fluid process by which resilience strategies evolve in response to shifting conditions.

Under acute shocks, such as natural disasters or cyber-attacks, resilience is often framed through the “Maintenance-Recovery Mix,” where institutions focus on stabilizing operations and responding rapidly (Yuan et al. 2025; Ge 2023). This aligns with the Crisis Response Mode, in which governments prioritize swift service restoration and operational continuity over long-term systemic reforms. In this mode, emergency protocols are activated, resources reallocated, and centralized command structures deployed to contain disruptions and restore critical services. The emphasis remains on short-term stabilization rather than institutional learning. For example, during

hurricanes or major cybersecurity breaches, authorities mobilize emergency resources, implement contingency plans, and coordinate multi-agency responses to reinstate power grids, secure communication networks, and repair essential infrastructure.

When acute shocks threaten not just service delivery but the stability of governance itself, governments often centralize power temporarily to restore order. In this “Maintenance-Recovery Mix,” resilience is framed as preserving the authority and functionality of governance structures, often at the expense of decentralization (Bracci and Tallaki 2021). This corresponds to the Emergency Centralization Mode, where governments consolidate decision-making, streamline command structures, and override bureaucratic constraints to accelerate crisis management. Centralization becomes critical in crises such as national security threats, financial collapses, or pandemics, when fragmented decision-making could delay response efforts. For example, the U.S. Patriot Act following 9/11 expanded surveillance capabilities and centralized counterterrorism operations to enhance national security. In the aftermath of the 2011 Great East Japan Earthquake, the Japanese government re-centralized disaster response, overseeing infrastructure stabilization, nuclear crisis management, and reconstruction efforts. Emergency centralization is often necessary for crisis containment but presents a key governance paradox: while it enhances immediate response capacity, prolonged reliance on top-down authority can stifle local innovation and reduce institutional flexibility. Ensuring that emergency centralization remains a temporary

intervention, rather than a permanent governance shift, is crucial for maintaining a balance between state authority and adaptive governance mechanisms.

Not all governance challenges stem from sudden crises. Many—aging populations, climate change, and technological transformations—unfold gradually, requiring institutions to continuously adjust policies, services, and regulatory frameworks. This aligns with the Incremental Adaptation Mode, a “Recovery-Adaptability Mix” that fosters resilience by restoring existing capabilities while simultaneously fostering innovation to meet evolving demands. Incremental Adaptation emphasizes continuous learning and policy evolution. Governments adopting this mode recognize that resilience is not merely about recovery but about proactively evolving to withstand future challenges. Estonia’s digital governance transformation exemplifies this model. Instead of reacting to cyber crises, Estonia invested in long-term modernization, integrating electronic health records, digital identity systems, and AI-driven service delivery (Margetts and Dunleavy 2013). This strategy illustrates how governments can embed adaptability within institutional frameworks, ensuring public services evolve alongside technological advancements. However, the Incremental Adaptation Mode has its trade-offs. Its reliance on gradual reforms rather than immediate overhauls can result in a lack of urgency for systemic transformation. Political cycles and bureaucratic inertia may further delay policy implementation, leading to stagnation rather than meaningful change. In fast-evolving governance challenges, incremental adjustments may struggle to keep pace, underscoring the need to balance stability with adaptive flexibility.

Beyond responding to crises, resilience also involves transforming governance systems to anticipate, absorb, and adapt to complex risks. The Polycentric Adaptation Mode represents a decentralized, multi-level governance approach in which resilience emerges through dynamic interactions among state and non-state actors. Rather than simply restoring pre-crisis conditions, this mode emphasizes adaptive, cross-sectoral governance strategies that ensure long-term resilience. This approach proves particularly effective when hierarchical control is insufficient, such as climate policy, urban resilience planning, and transnational governance. In these contexts, top-down mandates struggle to address highly localized vulnerabilities or cross-jurisdictional complexities. Instead, local authorities, businesses, and civil society organizations collaborate to experiment with adaptive solutions, embedding resilience across governance levels rather than centralized in a single authority. The European Union’s Green Deal, for example, institutionalizes resilience through multi-scalar policy coordination, localized experimentation, and iterative regulatory adjustments. By allowing member states and municipalities to test climate policies, refine best practices, and integrate innovations into national strategies, this model illustrates how resilience arises not from a singular approach but through ongoing, decentralized governance interactions. While this approach enhances systemic flexibility, it also presents challenges such as policy fragmentation, implementation delays, and accountability concerns. Nevertheless, when effectively managed, the Polycentric Adaptation Mode remains a sustainable pathway to integrate resilience within governance systems, allowing institutional adaptations to emerging risks.

The governance modes outlined in Table 2 illustrate how institutions navigate acute shocks and slow-burn challenges, each presenting distinct governance dilemmas. Acute shocks demand rapid, centralized coordination to restore stability, whereas slow-burn challenges require incremental policy adjustments and decentralized governance structures. China’s COVID-19 response exemplifies the tension between centralized crisis management and adaptive governance. Initially, the government adopted a highly centralized strategy, enforcing strict lockdowns, mass surveillance, and large-scale testing to curb viral transmission and protect the healthcare system from collapse (Wen et al. 2020). Temporary emergency measures, such as the rapid construction of *Fangcang* shelter hospitals, expanded medical capacity, while mass testing and digital health codes facilitated pandemic control. Yet centralized systems often delay early crisis detection, leading to prolonged reliance on stringent control measures, economic stagnation, and public discontent (Boin et al. 2021). The government’s abrupt transition to decentralization, lifting restrictions without a structured exit plan, demonstrates the risks of prolonged centralization in the absence of adaptive governance mechanisms.

Admittedly, a persistent challenge in the study of mixed resilience lies in the assumption of sequential progression. Traditional models often posit that institutions must first traverse maintenance and recovery before achieving adaptability. However, empirical evidence suggests that alternative pathways are possible, in which stability and transformation are more directly intertwined. Clarifying these pathways is essential both for understanding the interaction of resilience narratives and for explaining why their integration into governance design remains inherently complex.

7 | Synthesizing the Foundations of Resilience Research

Turning to the operationalization and application of resilience in public administration, we next examine the antecedents and effects of resilience, its role across different governance actors, and the key challenges in fostering resilient governance. Together, these insights provide a foundation for understanding how resilience is applied in practice.

7.1 | Antecedents

A significant body of research in our dataset examines the antecedents of resilience, which we define as factors shaping, enabling, or constraining resilience in governance systems. Despite conceptual variations across maintenance, recovery, and adaptability narratives, our synthesis identifies four overarching dimensions of antecedents: institutional, technological, organizational, and social factors (see Table 3; detailed references in Appendix B, Table B4).

Among the 20 identified antecedents across 94 estimated relationships, networking and collaboration, key components of social capital, emerge as the most frequently investigated factors, showing positive associations with resilience in 17 out of 20 estimates. Inter-agency coordination, public-private partnerships,

TABLE 3 | Antecedents of resilience.

Dimension	Antecedents	Positive	Negative
Institutional factors	Privatized service	2	
	Polycentric organizational structure	1	
	Austerity	1	
	Risk management system, procedure and planning	5	
	Guidance by politicians and political appointees	1	
	Bureaucratic value-sets and constraints	2	
	Poor urban planning	1	
	Vulnerability	2	
Technological and resource factors	Digital technology, digital platform, information technology	10	
	Resources	5	
	Innovation	4	
Organizational factors	Leadership	8	
	Human resource management	5	
	Public service motivation of public employees	1	
	Job satisfaction of public employees	1	
	Autonomy of public employees	1	
	Previous experience	1	
	Learning	1	
	Sense-giving and culture	4	
Social capital factors	Trust	5	
	Networking and collaboration	17	3
	Community capacity building	2	
	Empowerment of citizens	1	
	Civic engagement, community participation, co-design and coproduction	7	
	Social capital	1	
	Network of support	2	

and community engagement enhance institutional adaptability, yet their efficacy depends heavily on contextual governance structures. While hierarchical crisis management facilitates rapid response in acute shocks, decentralized governance fosters long-term resilience through adaptive problem-solving. The COVID-19 response exemplifies this tension: some governments relied on centralized crisis management for efficiency, whereas others prioritized multi-stakeholder engagement to co-develop adaptive recovery strategies (Tang 2021). Notably, excessive reliance on collaboration without structural alignment can lead to bureaucratic inefficiencies and accountability diffusion (Plimmer et al. 2023). Balancing these trade-offs requires hybrid models that integrate centralized coordination with decentralized implementation (Boin et al. 2021).

Technological advancements, particularly digital platforms and automated governance tools, constitute another major

antecedent of resilience. Following Dunleavy's digital-era governance framework, research highlights that digital innovations enable real-time coordination, predictive analytics, and automated service delivery, strengthening institutions' ability to respond to acute disruptions (Fischer et al. 2023; Yuan et al. 2025) and foster administrative innovation (Irmayani et al. 2022; Clement et al. 2023). Yet, where digital infrastructure is underdeveloped or poorly regulated, these advancements also introduce vulnerabilities, including cybersecurity threats, algorithmic biases, and digital divides that disproportionately affect marginalized populations (ITU and UNDP 2023). Effective resilience governance requires a dual approach: investing in digital inclusion and cybersecurity frameworks while deploying AI-driven misinformation detection and public awareness campaigns (European Commission 2022). By embedding technological resilience into regulatory safeguards, governments can maximize digital benefits while mitigating emerging threats.

Antecedents along the organizational and social capital dimensions, particularly leadership, civic engagement, trust, and resources, exhibit strong positive associations with resilience. Leadership fosters strategic agility, ensuring institutions can adapt to emerging challenges. Similarly, trust and civic engagement enhance resilience by reinforcing collective problem-solving and institutional legitimacy. Yet, as with collaboration and technology, leadership effectiveness is highly context-dependent. While centralized leadership ensures swift decision-making in crises, participatory governance fosters adaptability through inclusive policy design. For instance, Singapore's real-time data-driven governance approach has been effective in rapid crisis containment, whereas cities like Porto Alegre in Brazil have demonstrated how participatory budgeting enhances resilience by embedding flexibility and citizen engagement into governance structures.

These findings align with broader organizational research highlighting how internal mechanisms promote resilience. Several management studies, for example, demonstrate how micro-level capabilities support institutional adaptability. Informal routines and relational coordination, as discussed by Kim et al. (2025) and Powley (2009), create path coherence and emotional grounding during disruption, enabling teams to maintain operational continuity without relying on formal hierarchies. Other work underscores how resourcefulness, the ability to improvise solutions using available resources, helps navigate uncertainty (Sonenshein and Nault 2024). Structural empowerment further reinforces resourcefulness by granting frontline actors the discretion and authority to respond flexibly to evolving demands (Van Den Berg et al. 2022). Together, these insights complement public administration research by foregrounding the relational, procedural, and cognitive capacities underpinning resilient performance within organizations.

Despite these resilience-building mechanisms, structural constraints, including bureaucratic rigidity, financial limitations, and political short-termism, frequently undermine institutions' ability to integrate resilience systematically. While market-driven governance is frequently associated with efficiency, privatization can fragment crisis responses, creating coordination failures and equity concerns. Public-private partnerships, though valuable, often struggle with governance coherence, as private sector actors may prioritize financial sustainability over systemic resilience, delaying recovery efforts when profitability conflicts with public needs.

Institutional configurations further mediate resilience outcomes, with governance regimes exhibiting distinct trade-offs. While democratic systems emphasize transparency and participatory decision-making, centralized regimes prioritize hierarchical crisis management. Electoral cycles and ideological shifts shape resilience governance, as democratic policymakers often prioritize short-term political gains over long-term institutional adaptation. Beyond institutional structures, broader socio-political contexts also influence resilience. Cultural norms, such as collective action tendencies, risk tolerance, and governance traditions, affect how resilience is conceptualized and operationalized, yet these factors are often overlooked in standard resilience frameworks. Additionally, geopolitical pressures

further complicate resilience governance, particularly in regions experiencing international instability and cross-border crises. The Ukraine crisis illustrates how international alliances, economic sanctions, and transnational governance structures shape national resilience, highlighting resilience as not merely a domestic governance challenge but a function of global interdependencies (Mamedieva and Moynihan 2023).

In short, resilience is not driven by any singular antecedent but rather by how institutions orchestrate the interplay between governance structures, technology, leadership, and social capital. These dynamics are mediated by institutional regimes, cultural norms, and geopolitical pressures, underscoring resilience as both a domestic and global governance challenge.

7.2 | Effects

Resilience is not merely a crisis response mechanism; it is an institutional capacity that shapes governance structures, policy integration, and frontline decision-making, as evidenced by five studies in our dataset. As "organizational resilience," resilience fosters business continuity, service delivery, and adaptive networking, allowing institutions to sustain operations while recalibrating governance models in response to crises. As a "policy discourse," resilience integrates long-term planning and institutional coordination (Shaw and Maythorne 2013), aligning with polycentric governance by fostering multi-level cooperation, particularly in slow-burn crises (Wiechman et al. 2024). As "personal resilience," it empowers street-level bureaucrats and frontline workers to navigate institutional reforms, sustain professional identity, and balance discretion within hierarchical constraints (Monties and Gagnon 2024).

Beyond its role in organizational performance, resilience helps advance public values, particularly equity and inclusion. Governance structures determine who benefits from resilience strategies: in the Polycentric Adaptation Mode, multi-actor governance enables local governments, civil society, and private entities to tailor solutions to community needs. By contrast, the Emergency Centralization Mode prioritizes bureaucratic stability, often sidelining participatory processes in favor of immediate crisis containment. While centralized approaches enhance short-term efficiency, they may also exacerbate inequities by limiting the voices of marginalized communities in policy deliberation. This underscores why governance structures matter, not only in crisis response but also in shaping long-term institutional legitimacy and social inclusion.

Resilience also interacts with transparency and accountability in complex ways. During acute shocks, policymakers often prioritize rapid action over procedural oversight, raising concerns about democratic accountability and institutional legitimacy. While centralized crisis management ensures stability, it often bypasses deliberative processes, creating tensions between executive efficiency and public trust. By contrast, decentralized resilience strategies promote transparency and stakeholder engagement, but fragmented decision-making can also obscure accountability. The increasing reliance on algorithmic decision-making in resilience governance further complicates this balance. While automation enhances crisis response efficiency,

emergency powers and predictive analytics may reduce transparency, particularly when decision-making processes lack public scrutiny or regulatory oversight.

Moreover, the emphasis on resilience as adaptability can strain institutional resources. Institutions investing heavily in crisis preparedness, such as predictive analytics and emergency infrastructure, may divert resources from routine public services, fostering a perpetual state of crisis management. In the Crisis Response Mode, resources may be redirected toward emergency infrastructure and predictive analytics, whereas in the Incremental Adaptation Mode, institutions must navigate competing priorities, such as balancing public health investments with digital resilience initiatives. Without strategic alignment, overemphasizing crisis preparedness can lead to public fatigue, declining trust, and skepticism, as citizens may perceive resilience strategies as disproportionately focused on hypothetical risks rather than immediate needs.

Taken together, resilience emerges not simply as an institutional shield against crises but as a governance capacity influencing equity, transparency, and accountability. Its impact spans organizational, policy, and individual levels and extends well beyond immediate performance to the enduring legitimacy of public institutions. At the same time, resilience can create tensions: overemphasis on preparedness may strain resources, undermine inclusivity, and weaken public trust. These considerations highlight why resilience must be understood as both a capacity and a value, requiring governance arrangements that balance efficiency with equity and adaptability with accountability.

7.3 | Actors Across Governance Levels

Public administration research on resilience has predominantly adopted a government-centric perspective, yet resilience-building requires a broader, multi-actor approach. To rethink the roles of various actors at different governance levels, Table 4 outlines the most commonly studied actors across four governance levels: intra-organizational resilience, inter-organizational collaboration, community and local governance, and governance design at the multi-level scale. For each level, we identify leading and supporting actors and their contributions to resilience-building (detailed references are provided in Appendix B, Table B5).

Intra-organizational resilience focuses on how each organization adapts and thrives during crises. Public organizations, local governments, and frontline public employees play a pivotal role in crisis management and service continuity. Leadership, particularly transformational leadership, fosters innovation and strategic flexibility while maintaining operational stability (Franken et al. 2020). Yet leadership alone is insufficient, as frontline employees must translate resilience policies into practice, navigating uncertainties, stress, and complex decision-making environments (Monties and Gagnon 2024). Their problem-solving abilities and adaptability are crucial in maintaining organizational resilience (Fischer et al. 2023). Additionally, middle and upper management may support resilience by ensuring efficient resource allocation and linking strategic planning with operational effectiveness (Kim et al. 2024). However,

intra-organizational dynamics are often constrained by internal resistance to change, particularly in rigid bureaucracies where entrenched norms stifle innovation. For instance, during the COVID-19 pandemic, some public health agencies struggled to swiftly update protocols due to rigid hierarchies, highlighting the need for more adaptive, decentralized decision-making mechanisms (Boin et al. 2021). To mitigate these challenges, fostering a culture of psychological safety within organizations could encourage employees to voice concerns and propose solutions, enhancing resilience from within.

At the inter-organizational level, resilience relies on cross-sector collaboration among government agencies, private enterprises, and non-profit organizations. National governments and central agencies play a dominant role in the Crisis Response Mode, setting strategic frameworks and coordinating emergency responses through hierarchical structures (Nakrošis and Bortkevičiūtė 2022). Positioned at the intersection of government and external stakeholders, public sector managers facilitate inter-organizational coordination, ensuring that diverse actors contribute to a cohesive resilience strategy (Plimmer et al. 2022). Meanwhile, in the Incremental Adaptation Mode, local governments may lead by leveraging regional networks and fostering cross-sector partnerships (Clement et al. 2023; Elston and Bel 2023). Private companies support resilience through infrastructure maintenance and technological solutions, while NGOs and public entrepreneurs contribute by mobilizing community resources and expertise (Wang et al. 2020; Oh and Lee 2022). However, inter-organizational resilience faces coordination challenges, particularly in the Polycentric Adaptation Mode, where fragmented authorities and misaligned incentives can undermine efficiency. The 2010 Haiti earthquake response highlights this issue, as the lack of structured collaboration among international NGOs and local governments led to effort duplication and resource misallocation (Ramachandran and Walz 2015). To mitigate these risks, resilience strategies may incorporate formalized collaboration protocols, including shared data platforms, joint task forces, and institutionalized stakeholder dialogues.

At the community and local governance level, resilience-building emerges from the dynamic interaction between bottom-up initiatives and top-down governance. While local networks and grassroots organizations mobilize resources, foster social cohesion, and implement crisis response strategies (Ireni-Saban 2013; Platts-Fowler and Robinson 2016), local authorities provide regulatory oversight and align interventions with national policies (Morris et al. 2017; Levesque et al. 2024). Non-profit organizations further enhance resilience by bridging gaps between formal institutions and community-led adaptation (Rakhimova 2018). However, the effectiveness of these efforts depends on governance structures that balance centralized support with local autonomy. The 2011 Christchurch earthquake in New Zealand exemplifies this dynamic: while state funding provided financial stability, community-led initiatives were critical for rebuilding infrastructure and restoring social networks. This highlights a key challenge of top-down crisis management: while centralized coordination ensures immediate relief, disparities in local capacity (e.g., access to financial and institutional resources) can lead to unequal resilience outcomes, particularly in under-resourced areas.

TABLE 4 | Actors of resilience.

Dimensions	Leading actors	Supporting actors
Intra-organizational level	Public organizations (including local government) Public sector leadership (localized and organizational leadership in public administration) Public employees (focusing on employee resilience)	Public sector managers, executives, and leadership
Inter-organizational level	National government and agencies (shaping governance frameworks and resilience policies) Public sector managers (government officials managing inter-organizational cooperation) Local government (responsible for local governance and resilience efforts)	Private companies and suppliers (service providers, and outsourced contractors in resilience governance) NGOs and civil society (community-based organizations contributing to resilience) Experts and consultants (independent professionals or advisory bodies guiding resilience efforts) Public entrepreneurs (innovators driving new governance models, policy experiments, or digital transformation initiatives)
Community and local governance level	Community groups and rural communities (bottom-up contributing to resilience) Community leaders (coordinators managing governance and collaboration) Local government and councils (top-down leading community-level resilience efforts) Nonprofit organizations (leading resilience-building programs and social support)	Local governments (in a supporting role) (facilitators, funders, or intermediaries in resilience initiatives) Central government (providing policies, funding, and oversight for local initiatives) Local government (support roles assist community resilience efforts) Community leaders and residents (engaged local figures and residents contributing to resilience) NGOs (non-governmental organizations providing community services and crisis support) Other public entities and policy stakeholders (government agencies, research institutions, and other policy actors)

(Continues)

TABLE 4 | (Continued)

Dimensions	Leading actors	Supporting actors
Governance design and multi-level governance	Central government and national policymakers (institutions shaping governance frameworks and resilience policies)	Multi-stakeholders (cross-sectoral collaborations fostering governance design and resilience)
	Local government and regulatory bodies (municipal, regional, and regulatory bodies responsible for governance design, implementation, and oversight)	Digital infrastructure providers (entities responsible for supporting digital resilience and e-governance)
	Policy and crisis managers (officials responsible for crisis response and resilience policy development)	Experts and policy advisors (researchers, consultants, and advisors contributing knowledge to governance design)
		Community organizations (nonprofit and grassroots organizations involved in governance and resilience initiatives)
		Citizens and public participants (individuals engaging in policy-making and resilience efforts)
		Public sector employees (public sector personnel executing governance policies and strategies)

Governance design and multi-level governance strengthen resilience by fostering institutional collaboration across sectors and regions. While central governments provide overarching resilience frameworks to ensure policy coherence (Mamedieva and Moynihan 2023), their success depends on effective adaptation and implementation at local levels (Sciulli et al. 2015; Shen et al. 2023). Crisis managers bridge strategic frameworks with operational interventions, while experts, policy advisors, and civil society organizations contribute to long-term resilience planning (Stark 2014; Boyer 2019). Ultimately, public administrators operationalize resilience policies, bridging the gap between strategic frameworks and practical implementation (Plimmer et al. 2023). However, it remains challenging to ensure coordination across governance levels, particularly when short-term political priorities conflict with long-term resilience-building. Multi-stakeholder partnerships, spanning government, business, and civil society, can enhance resilience through resource pooling and knowledge-sharing (Vigoda-Gadot et al. 2023), yet competing incentives and jurisdictional overlaps often impede progress. This tension is particularly visible in climate adaptation, in which national policies set broad targets, but local implementation struggles due to resource disparities and regulatory misalignment. Addressing these issues requires a shift toward dynamic governance to ensure that resilience-building efforts remain both strategic and locally responsive.

Multi-level governance provides critical insights into how resilience operates across governance scales. At the micro level, leadership fosters individual resilience by creating supportive work environments. The meso level involves agency leadership and institutional frameworks translating resilience policies

into actionable strategies, while the macro level determines how national, regional, and local governance institutionalizes resilience through policy frameworks and coordination mechanisms. Yet aligning these levels remains challenging, as short-term political priorities often conflict with long-term resilience goals. Public managers must balance electoral pressures that drive immediate policy outcomes with the need for systemic resilience that extends beyond political cycles. Effective intergovernmental and inter-organizational collaboration facilitates information sharing, resource pooling, and coordinated crisis responses, yet its success depends on synchronizing strategies while adapting to diverse institutional capacities. In essence, resilience arises not from isolated actors but through institutional arrangements that align capabilities across levels and mediate between centralized coordination and local adaptability.

7.4 | Barriers to Resilient Governance

Four fundamental barriers may impede the development of resilient governance: conceptual, institutional, financial, and trust-related. These interconnected barriers reveal the complexity of transforming resilience theory into effective governance strategies tailored to diverse contexts.

The first challenge stems from conceptual ambiguity. While the flexibility of resilience as a concept enables broad policy collaboration, it also risks becoming an overly generalized notion, lacking clear operationalization and measurable outcomes. This vagueness can lead to governance strategies that emphasize stability over adaptability, potentially hindering institutions from

developing the necessary capacities to respond dynamically to evolving challenges (Boin and Lodge 2016). Hence, resilience must be contextualized within specific governance environments: the Crisis Response Mode focuses on maintaining service continuity, whereas the Polycentric Adaptation Mode emphasizes institutional learning, decentralized governance, and stakeholder engagement. Without such differentiation, policymakers risk deploying misaligned strategies that fail to meet the unique demands of different governance contexts. A more precise conceptualization requires standardized yet adaptable metrics, incorporating both quantitative measures (e.g., recovery time, service restoration rates) and qualitative indicators (e.g., institutional trust, community cohesion). Interdisciplinary collaboration across the social sciences, engineering, and public administration can further refine resilience frameworks to ensure both theoretical rigor and practical applicability.

An ongoing debate concerns which governance model—hierarchical or decentralized—is more resilient under different conditions. While decentralized governance fosters local partnerships and adaptive hazard mitigation (Kim et al. 2021), hierarchical models provide efficiency in resource allocation and crisis coordination, particularly during acute shocks that require centralized command-and-control (Nolte and Lindenmeier 2024). Varied governance models can enhance resilience depending on institutional configurations and crisis circumstances, and insights from boundary work practices (Quick and Feldman 2014) yield practical approaches for operationalizing resilience in cross-sector governance.

Institutional rigidity presents another barrier, as public institutions often struggle to balance adaptability and the bureaucratic preference for procedural rationality. While standardized procedures enhance predictability and accountability, they can also limit institutional agility (Stark 2014). Such rigidity persists because institutional norms are deeply entrenched, power is unevenly distributed, and regulatory mechanisms for flexible decision-making are absent. By distributing authority across multiple overlapping jurisdictions, polycentric governance offers an alternative by fostering institutional flexibility and localized decision-making. In the Netherlands' water management, for example, regional water boards collaborate across sectors to manage flood risks, illustrating how polycentric governance can balance adaptability with institutional stability. This model's broader applicability, however, depends on sustained political commitment, financial investment, and regulatory alignment.

Financial constraints present a significant challenge to resilient governance by exacerbating existing institutional limitations and restricting the capacity of governments to implement effective resilience strategies. Inadequate funding weakens service continuity plans and managerial capacities for maintaining essential operations during crises. Although local governments increasingly emphasize community empowerment and collaborative governance, financial constraints often compel them to prioritize short-term policies while neglecting underlying vulnerabilities and long-term stakeholder accountability (Imperiale and Vanclay 2021). A key strategy is adopting blended financing models that diversify financial resources, combining public funds, private capital, and international aid to reduce dependency on single funding sources. Additionally, innovative

funding instruments, such as green bonds and global initiatives like the Green Climate Fund, can support climate resilience and broader sustainability efforts. Multi-year budgetary commitments may help mitigate short-term biases in government spending and sustain resilience investments. Such mechanisms, however, require strong political commitment and regulatory stability to foster investor confidence and ensure long-term financial sustainability.

Trust deficits pose an equally significant challenge, particularly in digital governance. While enhancing service delivery and crisis response, digital technologies have also introduced cybersecurity threats, data privacy breaches, and the spread of misinformation, all of which can erode public confidence in the legitimacy and effectiveness of resilience strategies. Addressing this challenge requires a dual-pronged approach: strengthening digital security while fostering public engagement. Estonia's e-governance enhances institutional credibility by integrating secure digital identities and data-sharing transparency. Yet such strategies must be culturally attuned; in contexts with historical distrust of institutions, additional community-based trust-building initiatives may be necessary to ensure citizen buy-in and long-term governance legitimacy.

Viewed holistically, resilience governance faces persistent conceptual, institutional, financial, and trust-related constraints. While these challenges are formidable, they are not insurmountable; overcoming them requires systemic change, including clarifying concepts through adaptable metrics, reforming institutional structures to enhance flexibility, securing sustainable financing models, and rebuilding trust through transparency and engagement. Only by addressing these barriers can resilience transcend rhetoric and become an actionable principle of governance.

8 | Discussion and Conclusion

Resilience has evolved from its roots in the physical and ecological sciences to become a central paradigm in public administration, offering a governance framework for navigating complexity, turbulence, and uncertainty. Despite its growing prominence, systematic inquiry that treats resilience as a distinct analytical construct within public administration remains limited. Nonetheless, the literature consistently underscores its relevance for sustaining institutional legitimacy, ensuring policy coherence, and fostering public-sector innovation (Boin and van Eeten 2013; Reid and Botterill 2013; Demiroz and Haase 2019). Taken together, these insights point to a broader conceptual shift: resilience is increasingly understood not as a static institutional attribute but as a governance orientation that helps public organizations balance continuity and adaptation under conditions of stress. Building on this shift, our meta-narrative review traces how the concept has developed across different scholarly traditions and synthesizes these trajectories into a structured framework that conceptualizes resilience as the dynamic interplay of maintenance, recovery, and adaptability narratives. By linking these narratives to four governance modes—centralized crisis response, emergency stabilization, incremental adaptation, and decentralized transformation—we show resilience as a repertoire of institutional capacities that governments draw upon under varying conditions of stress and change.

Situated in the broader theoretical landscape, our framework embeds resilience within debates on polycentric governance, spontaneous order, and adaptive institutional design (Hayek 1967; Ostrom 1990; Tang 2025; Toonen 2010). The framework emphasizes that instead of resulting from centralized command, resilience emerges from distributed decision-making, collaborative networks, and organizational learning. Distributed decision-making enhances resilience partly through the strategic restructuring of coordination forums, enabling actors to maintain adaptive capacity as governance priorities shift (Bousema et al. 2025). More broadly, several additional governance enablers also shape how adaptive capacity develops. With digital infrastructures, cross-sector partnerships, and leadership supporting improvisation, communities can build the capacity to maintain continuity, mobilize resources, and adapt to evolving conditions. Digital systems, in particular, facilitate monitoring, information sharing, and coordinated problem-solving, yet also introduce vulnerabilities when cybersecurity, equitable access, or interdepartmental integration are insufficient (Fyshchuk et al. 2025). These dynamics cut across resilience narratives: digital tools safeguard stability in maintenance strategies, facilitate coordination during recovery, and catalyze innovation under adaptability.

Collaboration likewise underpins each narrative by enabling actors to combine complementary resources, bridge organizational boundaries, and sustain collective action during both acute shocks and slow-moving stresses. Leadership and frontline discretion convert resilience from an abstract principle into operational practice, while civic engagement and social capital cultivate the trust and accountability needed to maintain legitimacy. Evidence from public-sector incentive reforms shows that organizations often respond intensely under uncertainty before recalibrating through accumulated learning, underscoring the need to institutionalize learning as a core element of resilient governance (Hvidman et al. 2025). Crisis-management studies further demonstrate that the absence of anticipatory and strategic leadership can erode coordination and credibility in highly networked settings (Seidemann et al. 2025). Together, these mechanisms illustrate that resilient governance is a multilevel dynamic linking institutional authority with local discretion. They also highlight that resilience must be calibrated to crisis types: acute shocks typically require centralized coordination and rapid stabilization, whereas slow-burn challenges call for decentralized adaptation, participatory engagement, and long-term capacity building.

Yet, realizing this potential is far from straightforward, as enduring tensions and structural constraints limit how resilience can be institutionalized in practice. Conceptual ambiguity risks diluting resilience into a rhetorical catch-all (Boin and Lodge 2016), while institutional inertia, resource constraints, and trust deficits constrain implementation. Empirical research shows that uneven local government capacity can limit resilience initiatives in jurisdictions with fewer administrative and technical resources (Smith et al. 2025). Moreover, scholarship has often emphasized governmental perspectives without fully accounting for the contributions of communities, non-state actors, and frontline staff who shape resilience on the ground. These blind spots are increasingly consequential as governments confront a widening array of stressors, from climate disruption and pandemics to geopolitical volatility,

algorithmic governance, and the spread of disinformation, all of which underscore the intrinsic turbulence of contemporary governance environments. Resilience, therefore, should not be mistaken for crisis management rebranded, but recognized as an institutional orientation to govern under conditions of permanent uncertainty and inevitable surprise. Hence, the question is no longer whether resilience matters but how to cultivate it without lapsing into bureaucratic rigidity or rhetorical vagueness. Achieving this balance entails reimagining governance as simultaneously stable and adaptive, authoritative yet responsive. In doing so, resilience reframes the mission of public administration: *not merely to administer the present, but to steward institutions capable of enduring, adjusting, and innovating in an unsettled world*.

Building on this conceptual foundation, the three resilience narratives offer actionable guidance for strengthening governance capacity under uncertainty. Maintenance-oriented approaches underscore the value of clear rules, reliable routines, and stable coordination mechanisms for absorbing acute shocks. Recovery-oriented strategies highlight flexible resource mobilization, rapid problem-solving, and cross-agency cooperation during disruption. Adaptability-oriented insights emphasize the importance of collaborative networks, digital platforms, and decentralized initiative for navigating slow-burn challenges such as climate adaptation or demographic change. Yet empirical studies show that the uptake and feasibility of resilience measures differ significantly across local governments, shaped by varying levels of public support, risk perception, and administrative capacity (Kim 2025; Smith et al. 2025). Advancing resilience therefore requires not only national frameworks but also the empowerment of local actors, whose contextual knowledge and adaptive skills are essential for designing responsive, place-based solutions. Embedding resilience into routine governance further depends on institutionalized learning mechanisms, such as after-action reviews, knowledge sharing, and continuous feedback loops, that help translate crisis experiences into sustained organizational improvement (Hvidman et al. 2025). Collectively, these insights suggest that practitioners should cultivate hybrid governance models that combine structural reliability with adaptive learning, empower frontline and local actors, and institutionalize mechanisms that convert crisis experience into durable organizational enhancement.

Looking ahead, future research should move beyond single-level or single-context studies to examine resilience across scales, institutions, and disciplines. At the micro-to-macro level, this means tracing how individual, organizational, and systemic capacities interact to produce resilience outcomes. Comparative research across democratic and authoritarian regimes, as well as across high- and low-income contexts, can shed light on how political systems and resource environments shape the feasibility of resilience strategies. Theoretically, bridging public administration with the high-reliability organization framework and engineering resilience perspectives offers avenues to sharpen conceptual clarity and strengthen methodological rigor. Such inquiries will deepen our understanding of how resilience can be operationalized across diverse governance systems, turning it from an abstract aspiration into concrete and context-sensitive governance practices.

This review is certainly not without methodological limitations. First, the search strategy faced the inevitable trade-offs between

sensitivity and specificity. Some studies using “resilience” as a keyword offered little conceptual substance, while others employing adjacent terms such as “agility” or “transformation” may have been excluded. Second, the review did not systematically incorporate insights from the High-Reliability Organization tradition and early crisis governance. These bodies of work form an important conceptual lineage for resilience, but they were not included in the coded dataset because the meta-narrative synthesis requires a coherent semantic domain in which resilience is explicitly defined and examined. This boundary was necessary to preserve methodological integrity by ensuring that comparisons were drawn only from studies that self-identify resilience as an analytical construct. However, this choice also created a conceptual blind spot, as the reliability literature, with its focus on proactive risk management and system robustness, closely aligns with the maintenance dimension of resilience and warrants fuller integration (LaPorte and Consolini 1991; Berthod et al. 2017). Third, screening decisions involved subjective judgments and the exclusion of non-English publications and policy reports, which inevitably constrained comprehensiveness. Finally, while the meta-narrative synthesis is grounded in patterns identified in the reviewed literature, alternative constructions might emerge from different disciplinary lenses. These limitations highlight both the rigor and the boundaries of this study and point to the need for future scholarship that expands the evidentiary base and bridges conceptual traditions.

In conclusion, this review represents not an endpoint but a contribution to the continuing dialogue on resilient governance in an unsettled world. It affirms that resilience should not be confined to a reactive posture in times of crisis, but embraced as a core institutional capacity for adaptive, forward-looking, and sustainable governance. By combining qualitative synthesis with a systematic meta-narrative approach, the review clarifies widely recognized enablers of resilience and extends their meaning through a governance-focused typology of institutional responses. The central challenge ahead is embedding resilience into the fabric of everyday governance, ensuring that institutions remain both adaptive in the face of uncertainty and steadfastly accountable to public values.

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Conflicts of Interest

The authors declare no conflicts of interest.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section. **Data S1:** Supporting Information.