



Innovation in public administration amid social and global turbulence: strategic adaptation and key challenges

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ABSTRACT

Purpose: to analyze the role of institutional innovation in public administration as a strategic response to social and global turbulence, and to identify key strategies and their implementation challenges in building flexibility, accountability, and public value.

Method: this study uses a systematic literature review to analyze academic studies on public administration innovation, adaptive strategies, and cross-sector collaboration. The analysis focuses on identifying innovation patterns, strategies, and challenges amid social and global turbulence.

Findings: this study shows that public administration innovation is carried out through adaptive, collaborative strategies and the strengthening of institutional capacity, with the main challenges being structural barriers, bureaucratic culture, and political dynamics, while an orientation towards public values is the key to the success and sustainability of innovation.

Implications: this study emphasizes the importance of strategic, adaptive, and public-value-oriented innovation to improve the effectiveness and sustainability of public administration amid social and global turbulence.

Originality: this study integrates perspectives on strategy, adaptation, and collaboration in public administration innovation, particularly in the context of social and global turbulence, a topic rarely studied comprehensively.



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Introduction

Over the past two decades, the global environment has experienced increasing levels of uncertainty, marked by multidimensional crises including social instability, global economic disruption, climate change, pandemics, geopolitical conflicts, and accelerated digital transformation (Abbass et al., 2022; Elsamadony et al., 2025). This has created what is often referred to as an era of social and global turbulence, a situation

in which change occurs rapidly, is complex, and difficult to predict (McCool, 2022). In this context, public administration occupies a strategic yet vulnerable position, as it is expected to maintain governmental stability, ensure the quality of public services, and uphold public trust amid mounting pressures (Ahmed, 2025).

The emerging phenomenon indicates that conventional public administration models, which tend to be hierarchical, procedural, and less adaptive, are increasingly inadequate in responding to these turbulent challenges. Many countries face similar issues, including slow policy responses to crises, limited institutional capacity, fragmented coordination among actors, and rising public expectations for transparency, accountability, and service effectiveness (Hecke et al., 2021). Consequently, innovation in public administration has become an urgent necessity rather than merely a policy option.

However, public administration innovation does not occur in an unimpeded space. Several research questions arise, including: how can public administration strategically design and implement innovation amid social and global turbulence? What factors influence the success or failure of such innovations? And which structural, cultural, and political challenges are most dominant in the innovation process within contexts of crisis and uncertainty? These issues indicate that innovation is not merely about adopting new technologies or policies, but also involves shifts in paradigms, institutional capacities, and patterns of governance.

Previous studies have shown that public administration innovation has been widely discussed from various perspectives, such as public sector innovation, digital governance, new public management, and collaborative governance (Cinar et al., 2024; Criado et al., 2021; Gestel & Grotenbreg, 2021; Lopes & Farias, 2022; Scupola & Mergel, 2022). Some studies emphasize the role of digital technology as a primary driver of innovation, while others highlight the importance of leadership, organizational culture, and cross-sector collaborative networks (Gamidullaeva et al., 2021; Paschoiotto et al., 2024). Nevertheless, most research remains fragmented, focusing on stable contexts or specific cases, and has yet to comprehensively link public administration innovation with the systemic and ongoing dynamics of social and global turbulence.

The study gap lies in the limited studies that explicitly integrate the context of social and global turbulence with public administration innovation strategies and the key challenges encountered. Moreover, studies that position innovation as a strategic response to uncertainty, rather than merely an administrative or technocratic practice, remain scarce. The novelty of this study, therefore, lies in its attempt to develop a more holistic conceptual understanding of how public administration innovation is designed, implemented, and constrained by various factors in the era of turbulence.

The aim of this study is to analyze innovation in public administration amid social and global turbulence, with a focus on the strategic responses employed and the key challenges encountered. It identifies patterns of innovation strategies, supporting and inhibiting factors, and their implications for the adaptive capacity and resilience of public administration. This research is significant both theoretically and practically, offering an analytical framework that links public administration innovation to the dynamics of social and global turbulence, while positioning strategies and challenges as central elements in understanding the innovation process. The expected contribution is a more comprehensive understanding of innovation as a strategic adaptation mechanism in public administration, relevant across diverse governmental contexts in an era of global uncertainty.

Literature review

Public administration and social–global turbulence

The concept of turbulence in public administration refers to policy environments characterized by high uncertainty, complexity, and rapid change. Ansell et al. (2017) describe turbulence as a situation in which public institutions face simultaneous pressures from social, economic, political, and global factors that interact nonlinearly. Under such conditions, traditional administrative capacities prove inadequate to address increasingly complex public challenges. The theory of wicked problems, proposed by Rittel & Webber (1973), is also relevant in explaining turbulence, as many public issues are ill-defined, involve multiple actors, and lack singular solutions. Consequently, public administration must develop adaptive and reflective approaches.

Innovation theory in public administration

Public sector innovation has become a central focus in the modern public administration literature. Osborne & Brown (2011) define public innovation as the process of creating and implementing new ideas that generate public value. Unlike private-sector innovation, public administration innovation is constrained by regulations, political accountability, and a public-interest orientation. The OECD (2017) emphasizes that public sector innovation encompasses not only technology but also policy innovation, organizational processes, and governance. Meanwhile, Hartley (2005) classifies public innovation into service, process, organizational, and conceptual innovation. This framework helps to understand that public administration innovation is multidimensional and contextual.

Innovation as an adaptive strategy

The strategic public management approach views public organizations as actors that actively respond to the external environment through deliberate and adaptive strategies. Bryson (2018) emphasizes that strategy in the public sector is not merely formal planning but also an ongoing learning process in the face of uncertainty. In the context of turbulence, innovation functions as a mechanism for strategic adaptation. Adaptive governance theory asserts that the adaptive capacity of public institutions depends on their ability to learn, experiment, and innovate (Folke et al., 2005). Therefore, innovation is aimed not only at improving efficiency but also at enhancing public administration's resilience to external shocks.

Collaborative governance and innovation

Public administration innovation is increasingly understood as the result of interactions among multiple actors, rather than merely a product of bureaucracy. C. Ansell & Gash (2008) explain, through the collaborative governance framework, that cross-sector collaboration enables governments to overcome internal capacity limitations and enhance the quality of policy solutions. Osborne (2007) emphasizes, through the New Public Governance paradigm, that public value is created through networks of interdependent actors. In the context of social and global turbulence, collaboration becomes even more critical because public challenges often transcend administrative and national boundaries. However, collaboration also requires strong coordination capacity, trust, and leadership to ensure the sustainability of innovation.

Challenges of innovation in public administration

The literature indicates that public sector innovation faces complex barriers. Mulgan & Albury (2003) identify several obstacles to innovation, including risk-averse organizational cultures, rigid bureaucratic structures, and incentive systems that do not support experimentation. Furthermore, Moore (1997) emphasizes that, through the concept of public value, innovation must gain political legitimacy and public support to be sustainable. In the era of global turbulence, these challenges are exacerbated by external environmental instability, leadership changes, and increasing accountability pressures (Kettl, 2016). This suggests that public administration innovation is not merely a technical issue but also a complex political and institutional process.

Method

This study employs a qualitative approach with a literature review design. This approach was chosen to gain a comprehensive understanding of public administration innovation amid social and global turbulence, particularly regarding response strategies and the challenges encountered. The literature review enables the researcher to synthesize theoretical and empirical findings from previous studies to identify patterns, trends, and research gaps. The review in this study is analytical and integrative, not merely summarizing prior research but also comparing, critiquing, and linking findings within a conceptual framework relevant to the context of social and global turbulence.

The study's data sources include scientific literature published in reputable journals, academic books, reports from international organizations, and conference proceedings relevant to the research topic. Literature searches were conducted across major academic databases, including Scopus, Google Scholar, and the portals of international journal publishers. The keywords used in the literature search process included combinations of the following terms: public administration innovation, public sector innovation, social turbulence, global turbulence, strategic public management, collaborative governance, and public sector resilience. These keywords were combined using Boolean operators (AND, OR) to obtain a relevant and comprehensive literature review.

The literature selection process was conducted in phases. The first phase involved identifying literature based on titles and abstracts to assess relevance to the research focus. The second phase entailed a full-text review to ensure compliance with the inclusion and exclusion criteria. Literature that passed the selection stages was then analyzed in depth. To maintain consistency and transparency, the selection process was conducted systematically by documenting the number of literature items selected, excluded, and analyzed at each stage.

Data analysis was conducted using thematic analysis techniques. Each selected piece of literature was examined to identify the main themes related to: the context of social and global turbulence, public administration innovation strategies, and challenges in innovation implementation. The analysis stages included open coding to identify key concepts, axial coding to group concepts into broader themes, and thematic synthesis to establish connections among the themes. The results of the analysis were then interpreted within the theoretical framework developed in the literature review section.

To enhance the validity and reliability of the findings, this study employed several strategies, including the use of credible, reputable sources, source triangulation by comparing various theoretical and empirical perspectives, and a systematic, well-documented literature search. Additionally, the interpretation of findings was conducted reflectively and critically to minimize researcher bias.

Results and discussion

Based on the conducted literature review, the research findings can be categorized into several main themes that reflect the dynamics of public administration innovation amid social and global turbulence. Table 1 summarizes these findings, including the types of innovations identified, the adaptive strategies implemented, the challenges encountered, and the orientation toward public value, along with supporting references for each finding.

Table 1 literature review findings

Nu	Theme	Description	Reference
1	Social and global turbulence	Turbulence is characterized by multidimensional crises (social, economic, political, global) that create high uncertainty and policy complexity	Rittel & Webber (1973); Kettl (2016); Ansell et al. (2017); Salvador & Sancho (2023)
2	Limitations of traditional public administration	The hierarchical and procedural bureaucratic model is considered less adaptive and slow in responding to rapid changes	Osborne (2007); Pollitt & Bouckaert (2017); Tosun & Howlett (2021)
3	Innovation as a strategic response	Innovation is positioned as a mechanism of institutional adaptation and strategic response to uncertainty	Folke et al. (2005); Osborne & Brown (2011); Bryson (2018)
4	Forms of public administration innovation	Innovation includes innovation in policies, processes, organizations, public services, and governance	Hartley (2005); Lopes & Farias (2022); Galego et al. (2022)
5	Adaptive innovation and organizational learning	Adaptive public organizations emphasize flexibility, policy experimentation, and continuous learning	March (1991); Bryson (2018); Komatsu et al. (2021); Radosevic et al. (2023)
6	Collaborative governance	Cross-sector collaboration is a key strategy to overcome government capacity limitations	Ansell & Gash (2008); Emerson et al. (2012); Wu et al. (2025)
7	Structural challenges	Obstacles include regulatory rigidity, institutional fragmentation, and limited resources	Mulgan & Albury (2003); OECD (2017); Al-Otaibi et al. (2022); Xu (2025);
8	Cultural challenges	A bureaucratic culture that is averse to risk and resistant to change hinders innovation	Hartley (2005); Osborne & Brown (2011); Xu (2025);
9	Political challenges	The dynamics of interests, political legitimacy, and changes in leadership influence the sustainability of innovation	Moore (1997); Kettl (2016); Pradana et al. (2022); Gharib et al. (2024)
10	Public value orientation	Innovation must create public value through inclusivity, transparency and accountability	Moore (1997); Osborne (2007); Gherardi et al. (2021); Yuan & Hernandez (2021)
11	Innovation and institutional resilience	Innovation contributes to increasing the resilience and adaptive capacity of public administration	Folke et al. (2005); Ansell et al. (2017); Danso & Opoku (2025)

Source: secondary data, processed

Table 1 indicates that public administration innovation is consistently understood as a strategic and adaptive response to social and global turbulence. The findings highlight that innovation success is determined not only by technical factors but also by institutional, cultural, and political factors. Furthermore, a focus on public value and cross-sector collaboration emerges as a key element in ensuring the sustainability of innovation amid global uncertainty.

Social and global turbulence as the context of public administration innovation

The literature review indicates that social and global turbulence has become a structural context inseparable from the dynamics of contemporary public administration (Ansell et al., 2017; Kettl, 2016; Rittel & Webber, 1973; Salvador & Sancho, 2023). This turbulence is characterized by increasing uncertainty, complexity, and intensified cross-sector and cross-regional interactions, driven by multidimensional crises such as social instability, global economic disruptions, pandemics, climate change, and geopolitical conflicts. These conditions are not merely temporary but persistent and systemic, placing public administration under constant, unpredictable pressure. In this context, public administration faces growing demands to be responsive, adaptive, and innovative. The literature shows that public expectations of government are no longer limited to maintaining stability and performing routine administrative functions, but also include the capacity to manage crises, adapt to rapid change, and produce relevant and sustainable policy solutions. Social and global turbulence thus shifts the paradigm of public administration performance from a procedural compliance orientation toward adaptive capacity and institutional resilience (Salvador & Sancho, 2023).

The literature review demonstrates that turbulence is a primary driver of public administration innovation. External pressures arising from crises and uncertainty push public organizations to reassess traditional administrative approaches, which are often hierarchical, rigid, and short-term oriented (Salvador & Sancho, 2023). In many cases, conventional public administration models are considered inadequate for addressing complex, cross-boundary, and interconnected public problems (Paile, 2024). Consequently, innovation emerges as a strategic necessity to maintain governmental effectiveness and legitimacy. Furthermore, the literature indicates that innovation in the context of turbulence goes beyond the mere adoption of new technologies or procedural improvements; it also encompasses policy adjustments, organizational restructuring, and changes in work patterns and governance. Public organizations are thus compelled to develop more flexible working mechanisms, strengthen inter-agency coordination, and create space for collaboration with non-state actors. Innovation is therefore understood as an adaptive response to environmental pressures that compel public administration to adjust policies, structures, and work processes simultaneously. These findings emphasize that social and global turbulence is not merely an external backdrop for public administration innovation but a constitutive factor that shapes the direction, character, and intensity of innovation itself. Innovation arises not solely from normative choice but as a logical consequence of institutional necessity to survive and function effectively in an increasingly unstable environment (Saptono et al., 2024). Therefore, understanding turbulence as a central context for innovation is crucial in analyzing the dynamics of public administration in an era of global uncertainty.

Innovation strategies in public administration

The thematic analysis indicates that innovation strategies in public administration have developed in response to increasing social and global turbulence (Bryson, 2018; Folke et al., 2005; Osborne & Brown, 2011). The analyzed literature shows that innovation is not implemented in isolation or sporadically, but rather through a combination of complementary strategies that enhance public administration's adaptive capacity. Three primary strategies most prominently highlighted in the literature are adaptive innovation, collaborative-based innovation, and institutional capacity strengthening. The first strategy, adaptive innovation, is characterized by public administration's efforts to increase policy and organizational

flexibility in response to rapidly changing, uncertain environments. The literature emphasizes the importance of shifting from rigid long-term planning approaches toward more iterative, experimental, and learning-based decision-making mechanisms. In this context, adaptive innovation manifests through policy experimentation, dynamic adjustments to work procedures, and the strengthening of organizational learning as a core foundation for adaptation (Chughtai et al., 2024). This approach enables public organizations to respond to crises more quickly while continuously improving policies based on ongoing feedback and evaluation.

The second strategy is collaborative-based innovation, which positions cross-sector collaboration as the primary mechanism for developing and implementing public administration innovation. The literature indicates that the complexity of public problems in the era of turbulence often exceeds the capacity and authority of government actors alone. Therefore, collaboration with non-state actors, such as the private sector, civil society organizations, local communities, and international institutions, has become a dominant pattern in public administration innovation. Collaboration enables knowledge exchange, broader resource utilization, and risk-sharing in the face of uncertainty (Liu et al., 2023). Moreover, a collaborative approach enhances the legitimacy of policies and public acceptance of the resulting innovations. The third identified strategy is institutional capacity strengthening, which encompasses governance reform, the development of innovative leadership, and improved coordination and integration across public institutions. The literature emphasizes that innovation cannot be sustainable without adequate institutional capacity support. Governance reforms aim to create more flexible regulatory frameworks and organizational structures, while innovative leadership fosters a culture of experimentation and risk-taking (Fannur et al., 2023). Meanwhile, enhanced inter-agency coordination is crucial to reduce policy fragmentation and ensure that innovations are implemented consistently across sectors and levels of government. Overall, the findings show that innovation strategies in public administration are multidimensional and interconnected. Adaptive innovation provides mechanisms for rapid response to change, and cross-sector collaboration expands the capacity and legitimacy of innovation (Wu et al., 2025). In contrast, institutional capacity strengthening ensures the long-term sustainability and resilience of innovation. These findings highlight that innovation in public administration during turbulent times should be understood not merely as a technocratic endeavor, but as a comprehensive institutional strategy aimed at sustainably navigating social and global uncertainties.

Challenges in the implementation of public administration innovation

The literature review indicates that implementing innovation in public administration amid social and global turbulence poses multidimensional, interconnected challenges (Al-Otaibi et al., 2022; Gharib et al., 2024; Osborne & Brown, 2011; Pradana et al., 2022; Xu, 2025). These challenges arise not only during the design phase of innovation but also become increasingly complex during the implementation and institutionalization phases. The analyzed literature suggests that failures or limitations in public administration innovation are often caused by a combination of structural, cultural, and political barriers that impede sustainable change. Structural challenges are the most frequently highlighted in the literature. Regulatory rigidity, complex bureaucratic procedures, and institutional fragmentation limit public organizations' discretion to innovate (Galperin et al., 2026). In many contexts, legal and administrative frameworks designed to ensure stability and accountability create

tensions with the need for flexibility and rapid responsiveness. In addition, limitations on human and financial resources constrain public organizations' capacity to conduct policy experimentation, adopt new practices, or sustain innovations over the long term. This condition indicates that innovations are often confined to pilot projects and are difficult to replicate or mainstream.

In addition to structural barriers, the literature also highlights the significant cultural challenges in implementing public administration innovation. Bureaucratic cultures that tend to be hierarchical, compliance-oriented, and risk-averse constitute major obstacles to innovative practices. Resistance to change often arises from concerns about administrative consequences, uncertain outcomes, and potential failures that could affect civil servants' careers (Poljašević et al., 2025). In the context of turbulence, as public pressure and policy risks increase, the tendency of bureaucracies to maintain the status quo is further reinforced. The literature indicates that without organizational cultural changes that promote learning, experimentation, and tolerance for failure, innovation tends to remain symbolic and unsustainable. The political dimension also poses a critical challenge to the implementation of public administration innovation. Political interest dynamics, leadership changes, and policy legitimacy contests influence the direction and sustainability of innovation. The literature shows that innovations lacking adequate political support or misaligned with dominant actors' agendas tend to stall or be canceled (Trein & Vagionaki, 2024). Furthermore, pressures of public accountability and expectations for immediate results often constrain the space for long-term policy experimentation. Innovations that carry high risks or whose outcomes are not immediately visible become difficult to sustain within short political cycles.

Furthermore, the literature shows that these three types of challenges interact with and reinforce one another. Structural rigidity can strengthen risk-averse cultures, while political dynamics can constrain the space for structural reforms and organizational cultural change. In the context of social and global turbulence, the interactions among these barriers become increasingly complex as external pressures demand rapid responses. At the same time, the internal capacity of public administration remains relatively limited. These findings underscore that public administration innovation is not merely a technical or managerial issue but a complex institutional and political process. The success of innovation implementation heavily depends on the public administration's ability to manage the tensions between flexibility and accountability, between experimentation and stability, and between short-term adaptive demands and long-term capacity building (Fannur et al., 2023). Therefore, understanding the challenges of innovation implementation is crucial for designing realistic and sustainable public administration innovation strategies in an era of social and global turbulence.

Public value orientation in public administration innovation

The literature indicates that innovation in public administration cannot be understood merely as an effort to enhance administrative efficiency or effectiveness; rather, it must be positioned as a process of creating and strengthening public value. The literature consistently emphasizes that successful innovations are those that generate collective benefits for society while reinforcing public trust in government institutions (Galego et al., 2022; Hartley, 2005; Lopes & Farias, 2022). In the context of social and global turbulence, a public value orientation becomes increasingly crucial because high levels of uncertainty and policy risk demand public trust and support. Various studies highlight that the principles of inclusiveness, transparency, and accountability are key

normative elements in public administration innovation (Ballesteros et al., 2023). Inclusiveness refers to the involvement of diverse societal groups in the formulation and implementation of innovation, ensuring that resulting policies reflect broad public needs and interests. Transparency relates to the openness of information, clarity of innovation objectives, and decision-making processes that are accessible and understandable to the public (Park & Garcia, 2022). Accountability requires clear mechanisms for reporting and responsibility regarding the outcomes and impacts of innovation, both administratively and politically. The literature shows that innovations integrating these three principles tend to achieve greater public acceptance and are more likely to be sustainable (Gherardi et al., 2021; Osborne, 2007; Yuan & Hernandez, 2021).

The literature also indicates that a public value orientation serves as a key differentiator between public sector and private sector innovation. Unlike the private sector, which focuses on profit or market efficiency, public administration innovation must consider dimensions of social justice, democratic legitimacy, and the long-term interests of society. From the public value perspective, innovation is seen as a means for government to create value that is recognized and appreciated by the public, rather than merely improving internal organizational performance (Moore, 1997). Therefore, the success of innovation is measured not only by outputs or efficiency but also by the extent to which it contributes to social welfare and public trust. Furthermore, the literature shows that innovations that neglect the public value dimension can provoke social resistance and undermine governmental legitimacy (Wu et al., 2025). Innovations that are overly technocratic or solely efficiency-oriented are often perceived as elitist, insensitive to societal needs, or even threatening to the interests of certain groups. In the context of social and global turbulence, these conditions can exacerbate social tensions and reduce public trust in government. Accordingly, a public value orientation functions as a mechanism to mitigate social and political risks in the process of public administration innovation. These findings emphasize that a public value orientation is not merely a normative complement to public administration innovation but a strategic element that determines its success and sustainability. Innovations guided by public value can bridge the need for policy adaptation with demands for democratic legitimacy while strengthening public administration's capacity to cope with global uncertainty (Meuleman, 2021). Therefore, integrating public value principles into the design and implementation of innovation is a fundamental prerequisite for achieving a responsive, adaptive, and trusted public administration.

Public administration innovation as a strategic response to turbulence

The findings of this study reinforce the theoretical perspective that views public administration innovation as a strategic response to social and global turbulence, rather than merely an incidental activity or technical project, in contexts of high uncertainty (Ansell et al., 2017; Kettl, 2016; Salvador & Sancho, 2023). Innovation functions as an institutional adaptation mechanism that enables public administration to maintain functional capacity, legitimacy, and public trust (Salvador & Sancho, 2023). Consequently, innovation becomes an integral part of public organizations' strategies for navigating rapidly changing, complex, and unpredictable environments. The review indicates that innovation in public administration is closely linked to organizational efforts to adapt to systemic external pressures. The strategic public management perspective emphasizes that public sector strategy is not realized solely through formal planning but also through continuous learning processes, goal adjustments, and the management of relationships with various stakeholders. Within this framework,

innovation is understood as a strategic instrument that allows public organizations to respond proactively and reflectively to environmental changes while bridging the gap between internal capacities and external demands.

Furthermore, the findings of this study align with the adaptive governance framework, which positions flexibility, experimentation, and organizational learning as key prerequisites for addressing policy uncertainty and complexity. The literature analyzed indicates that innovation plays a crucial role in building public administration's adaptive capacity, whether through policy adjustments, organizational restructuring, or the development of collaborative mechanisms. In this context, innovation is not only aimed at enhancing short-term efficiency but also at strengthening institutional resilience in the face of recurring social and global shocks. Unlike much of the previous research, which tends to focus public administration innovation on digital technology adoption or service modernization, the findings of this study suggest that strategic and institutional dimensions play a more decisive role in turbulent contexts. Technology is understood as an enabler rather than the primary goal of innovation. The alignment between innovation strategies, institutional capacity, organizational culture, and political and social legitimacy largely determines the success of innovation (Zhang et al., 2023). In other words, technological innovation without supporting strategic and institutional changes tends to yield limited, unsustainable impacts.

Moreover, these findings underscore that innovation as a strategic response also involves public administration's capacity to manage the tension between stability and change. On one hand, public organizations are expected to maintain legal certainty, accountability, and continuity of public services. On the other hand, social and global turbulence demands flexibility, rapid responsiveness, and the willingness to experiment. Innovation serves as a mechanism that bridges this tension by enabling changes that are both managed and institutionally legitimized (Pinto et al., 2021). Overall, this discussion demonstrates that public administration innovation in an era of turbulence should be understood as a strategic process embedded within governance. Innovation is no longer an optional policy choice but an institutional necessity to ensure the continuity of government functions, the creation of public value, and the resilience of public administration amid social and global uncertainty. These findings make an important contribution by expanding the understanding of innovation as a strategic adaptation mechanism while enriching the theoretical discourse in public administration, which has often been fragmented.

Integration of innovation strategies and implementation challenges

Innovation strategies in public administration cannot be understood in isolation from the implementation challenges that accompany them. The analyzed literature indicates that the success of innovation is determined not only by the appropriateness of the strategy design, whether adaptive, collaborative, or focused on strengthening institutional capacity, but also by the ability of public administration to manage structural, cultural, and political barriers that emerge during the implementation phase (Kettl, 2016; Mulgan & Albury, 2003; Osborne & Brown, 2011). In other words, innovation is an end-to-end process in which strategy formulation and implementation are mutually dependent and constraining. The review shows that adaptive and collaboration-based innovation can operate effectively only if supported by sufficiently flexible regulatory frameworks. In many cases, demands for legal certainty, procedural standards, and formal accountability create limited space for policy experimentation and organizational learning. This tension illustrates a structural dilemma in public

administration: the need for stability and control must be balanced with the demands for flexibility and rapid responsiveness. The literature emphasizes that without regulatory adjustments and adaptive oversight mechanisms, innovation strategies are likely to be obstructed or reduced to incremental changes with minimal impact.

Beyond structural aspects, organizational culture emerges as a decisive factor linking innovation strategies with implementation realities. Adaptive and collaborative innovations require a bureaucratic culture that is open to change, learning, and risk tolerance (Fannur et al., 2023). However, the literature indicates that public organizational cultures are often dominated by compliance orientation and risk aversion, particularly in contexts of turbulence that increase accountability pressures. Consequently, even when innovation strategies are normatively well-formulated, their implementation frequently encounters internal resistance. This underscores that organizational culture transformation is a critical prerequisite for integrating innovation strategies with effective implementation practices. The political dimension also plays a central role in integrating innovation strategies and addressing implementation challenges (Domorenok et al., 2021). Public sector innovation requires strong political legitimacy to be implemented and institutionalized sustainably. The literature shows that leadership changes, interest dynamics, and short political cycles often affect the consistency of innovation strategies (Bryson, 2018). Innovations that are misaligned with dominant political agendas or unable to demonstrate clear public benefits tend to lose support and stall at an early stage. This situation demonstrates that innovation is not merely a technical or managerial issue but a complex political process.

Furthermore, the literature identifies a normative tension between innovation and public accountability. On one hand, innovation requires space for experimentation, flexibility, and the possibility of failure. On the other hand, public administration is bound by principles of accountability, transparency, and legal certainty. This tension underscores that public sector innovation always operates within a political and normative space, where efficiency must be negotiated with legitimacy, justice, and public trust. Accordingly, the main challenge is not to eliminate this tension but to manage it institutionally. Overall, this discussion demonstrates that integrating innovation strategies and implementation challenges is key to understanding the dynamics of public administration innovation in an era of social and global turbulence. Effective innovation requires alignment between adaptive and collaborative strategies, supportive regulatory frameworks, a conducive organizational culture, and sustained political legitimacy. These findings emphasize that public administration innovation is a strategic process imbued with political and normative dimensions and therefore requires a holistic, reflective approach in its design.

Conclusions

This study demonstrates that innovation in public administration constitutes an essential strategic response to social and global turbulence. It is not merely the adoption of technology but an institutional adaptation mechanism embedded within contemporary governance. The literature review identifies three main strategies: adaptive innovation through experimentation and continuous learning; collaboration-based innovation involving cross-sector actors; and strengthening institutional capacity through governance reforms and innovative leadership. Nevertheless, the implementation of innovation faces structural, cultural, and political barriers, while orientation toward public value, inclusiveness, transparency, and accountability remains crucial for success. Overall, public administrations that survive and function effectively

under turbulent conditions are those capable of integrating innovation multidimensionally, managing the tension between flexibility and accountability, and balancing the demands of short-term adaptation with long-term capacity building.

This study has both theoretical and practical implications. Theoretically, it enriches the understanding of public administration innovation by integrating perspectives from strategic public management, adaptive governance, and collaborative governance. It emphasizes innovation as a crucial adaptation mechanism for responding to social and global turbulence and underscores that turbulence shapes both innovation strategies and practices. Practically, the findings guide policymakers and public organizational leaders in designing innovations strategically and contextually, developing adaptive regulations, fostering a culture of learning and experimentation, strengthening cross-sector collaboration, and grounding initiatives in public value to ensure social legitimacy and policy sustainability.

This study has several limitations. First, by relying on a literature review approach, the findings are conceptual and provide a theoretical synthesis without direct empirical testing. Second, the analyzed literature predominantly originates from developed countries, leaving the context of developing countries underrepresented. Furthermore, the complexity of innovation practices at local and sectoral levels has not been fully captured. Future research is recommended to conduct empirical studies, such as comparative case studies or mixed-method approaches, to understand the implementation of innovation strategies across diverse contexts of social and global turbulence, including the experiences of developing countries and local governments. Subsequent studies should also explore in greater depth the political and normative dynamics, the role of innovative leadership, organizational learning mechanisms, and the design of adaptive governance to ensure that public administration innovation effectively supports resilience and sustainability.

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