

Review Article

# Digital Public Service Delivery in Local Governments: A Literature Review on Administrative Capacity and Citizen Readiness

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**Abstract:** The digital transformation of public service delivery has become a central agenda in contemporary public administration, positioning local governments as critical actors in translating national digital strategies into tangible, citizen-facing outcomes. Despite rapid diffusion of digital platforms and e-government initiatives, substantial variation persists in the performance, inclusiveness, and sustainability of digital public services across local contexts. This variation points to persistent challenges related to administrative capacity constraints within local governments and uneven levels of citizen readiness to access and use digital services. Addressing these challenges, this article presents a comprehensive literature review that aims to (1) map the conceptual evolution of digital public service delivery in local governments, (2) synthesize empirical findings on the roles of administrative capacity and citizen readiness, and (3) identify key theoretical and empirical gaps in the existing scholarship. Methodologically, the study adopts a systematic literature review approach, drawing on peer-reviewed journal articles published in the last five years and indexed in major academic databases, including Scopus, Web of Science, DOAJ, and Google Scholar. The selected literature is analyzed using thematic synthesis, guided by an integrated theoretical framework combining Digital Government Theory and Digital Era Governance as overarching transformation lenses, Administrative Capacity and Capacity Building Theory and Competency-Based Human Resource Management to explain organizational and human resource determinants, Digital Divide Theory and the Technology Acceptance Model to capture citizen-side readiness and adoption dynamics, and Policy Implementation Theory to account for institutional and regulatory mediation. The synthesis reveals several dominant patterns: digital service performance is strongly conditioned by leadership, coordination, information capacity, and workforce competencies; citizen uptake is shaped not only by access and skills but also by perceived usefulness, ease of use, and trust; and policy design and implementation processes mediate the interaction between supply-side capacity and demand-side readiness. Importantly, the review shows that these factors are mutually constitutive rather than independent, challenging linear and technology-centric models of digital transformation. The article concludes by advancing an integrative conceptual understanding of local digital public service delivery and by outlining theoretical implications for digital public administration research as well as practical policy recommendations for designing inclusive, capacity-sensitive, and sustainable digital public services at the local level.

Received: July 23, 2025

Revised: September 23, 2025

Accepted: November 18, 2025

Online Available: January 19, 2026

Curr. Ver.: January 19, 2026



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**Keywords:** Administrative Capacity; Citizen Readiness; Digital Divide; Digital Government; Local Governments.

## 1. Introduction

The digital transformation of public service delivery has become a defining feature of contemporary public administration, reshaping how governments interact with citizens, organize internal processes, and implement public policies. Across regions and levels of government, digital technologies are increasingly deployed to enhance service accessibility, efficiency, transparency, and responsiveness, particularly in response to rising citizen expectations and the growing complexity of public problems. In the aftermath of the COVID-19 pandemic, the acceleration of digital public services has further underscored the

strategic importance of digital government as a core component of state capacity and governance resilience. While national governments often set overarching digital strategies and regulatory frameworks, local governments play a pivotal role as the primary interface between the state and citizens, making them a critical locus for examining the effectiveness and inclusiveness of digital public service delivery (Luna-Reyes et al., 2024; Sundberg & Holmström, 2024).

Within the literature, the evolution from early e-government initiatives toward more integrated models of digital government and Digital Era Governance (DEG) reflects a paradigmatic shift in how public services are conceptualized and delivered. Rather than focusing solely on the digitalization of existing procedures, contemporary approaches emphasize service integration, citizen-centricity, data-driven decision-making, and cross-organizational collaboration. Empirical studies of local governments demonstrate that digital public service delivery can generate substantial benefits, including reduced administrative burdens, improved service quality, and enhanced citizen engagement. However, these benefits are neither automatic nor uniformly distributed. Research increasingly shows that digital transformation outcomes vary widely across municipalities, regions, and countries, suggesting that technology alone is insufficient to explain performance differences in local digital public services (Cingolani, 2021; Fan & Pan, 2023).

A growing body of scholarship highlights administrative capacity as a central determinant of successful digital public service delivery in local governments. Studies grounded in administrative capacity and capacity building theories emphasize the importance of organizational structures, leadership commitment, human resource capabilities, and information infrastructure in enabling digital transformation. In this regard, Competency-Based Human Resource Management (CBHRM) has emerged as a valuable analytical lens to examine how digital skills, adaptive competencies, and managerial capabilities among public officials shape the design, implementation, and sustainability of digital services. Empirical evidence suggests that local governments with stronger administrative and human resource capacities are better positioned to adopt innovative digital solutions and to align them with organizational goals and citizen needs (Gasco-Hernandez et al., 2022; Tran Pham, 2023).

At the same time, an expanding stream of research shifts attention to the demand side of digital public service delivery by examining citizen readiness and user acceptance. Drawing on Digital Divide Theory and the Technology Acceptance Model (TAM), scholars have documented how disparities in access to digital infrastructure, variations in digital literacy, levels of trust, and perceptions of usefulness and ease of use significantly influence citizens' willingness and ability to utilize digital public services. These studies demonstrate that even well-designed digital services may fail to achieve their intended outcomes if substantial segments of the population lack the resources or capabilities to engage with them effectively. Consequently, digital transformation at the local level may inadvertently reinforce social inequalities if citizen readiness is not adequately addressed (Patergiannaki & Pollalis, 2024; Rosenberg, 2024).

Despite these advances, the existing literature remains conceptually fragmented. Many studies focus either on internal governmental factors, such as administrative capacity and organizational readiness, or on external factors related to citizen adoption and digital inclusion. Moreover, research on digital public service delivery in local governments often treats Digital Government Theory, Digital Era Governance, Administrative Capacity, CBHRM, Digital Divide Theory, TAM, and Policy Implementation Theory as separate analytical traditions rather than as interrelated perspectives. As a result, there is a lack of integrative synthesis explaining how supply-side capacities of local governments interact with demand-side citizen readiness within specific institutional and policy implementation contexts. This fragmentation limits the ability of scholars and practitioners to develop comprehensive explanations of why digital public service initiatives succeed in some local settings while underperforming in others.

Against this backdrop, this article addresses a clear research gap by providing a systematic literature review that synthesizes state-of-the-art research on digital public service delivery in local governments through an integrated, multi-theoretical framework. Specifically, the review seeks to bridge Digital Government Theory and Digital Era Governance with Administrative Capacity and Capacity Building Theory, Competency-Based HRM, Digital Divide Theory, Technology Acceptance Model, and Policy Implementation Theory. By doing so, the article moves beyond siloed explanations and offers a holistic understanding of how administrative capacity and citizen readiness jointly shape the implementation and outcomes of digital public services at the local level.

The primary objective of this literature review is twofold. First, it aims to contribute theoretically to the field of Public Administration and Digital Government by developing an integrated conceptual synthesis that clarifies relationships among key theories and identifies dominant themes, patterns, and gaps in the existing literature. Second, it seeks to generate practical insights for policymakers and local government practitioners by highlighting critical capacity constraints, citizen-related challenges, and institutional factors that must be addressed to design and implement inclusive and effective digital public services. Through this dual contribution, the article aspires to inform both future research agendas and evidence-based policy development in the context of local digital governance.

The remainder of the article is structured as follows. The next section reviews the theoretical foundations and key strands of literature on digital public service delivery, administrative capacity, and citizen readiness. This is followed by a detailed explanation of the materials and methods employed in the systematic literature review. The subsequent section presents and discusses the synthesized findings, organized thematically across administrative capacity, citizen readiness, and policy implementation dimensions. A comparative section then contrasts findings across contexts and theoretical approaches. The article concludes by summarizing key insights, outlining theoretical and practical implications, and suggesting directions for future research.

## 2. Literature Review

### Digital Government Theory and Digital Era Governance (DEG) in Local Public Service Delivery

The literature on digital public service delivery has evolved significantly from early e-government initiatives toward more comprehensive models of digital government and Digital Era Governance (DEG). While early e-government approaches primarily focused on the digitalization of administrative procedures and information dissemination, contemporary digital government perspectives emphasize systemic transformation, service integration, and citizen-centric design. DEG, in particular, conceptualizes digitalization as a mechanism for reintegrating fragmented public services, reducing administrative silos, and redesigning organizational processes to respond more effectively to citizen needs. Empirical studies demonstrate that local governments adopting DEG-oriented approaches tend to achieve improved coordination across departments, enhanced service accessibility, and higher levels of citizen satisfaction, especially when digital platforms are organized around life events or service bundles rather than bureaucratic structures (Cingolani, 2021; Sundberg & Holmström, 2024).

However, the literature also highlights substantial variation in the outcomes of digital government initiatives at the local level. Comparative analyses show that similar digital strategies can produce markedly different results across municipalities due to differences in institutional arrangements, legacy systems, and organizational capabilities (Fan & Pan, 2023; Luna-Reyes et al., 2024). These findings suggest that while Digital Government Theory and DEG provide a robust macro-level framework for understanding digital transformation, they offer limited explanatory power regarding the conditions under which digital public services are effectively implemented and sustained in local contexts. As a result, recent scholarship increasingly calls for the integration of organizational and capacity-focused perspectives to complement digital government frameworks and to better explain uneven performance in local digital public service delivery.

### Administrative Capacity and Capacity Building in Local Governments

Administrative capacity has emerged as a central explanatory concept in the literature on digital public service delivery in local governments. Drawing on capacity building theory, scholars conceptualize administrative capacity as a multidimensional construct encompassing organizational structures, leadership, human resources, information systems, and coordination mechanisms. Empirical studies consistently demonstrate that local governments with stronger administrative capacity are better positioned to design, implement, and sustain digital public services. Leadership commitment and strategic vision are frequently identified as critical factors shaping digital transformation trajectories, as they influence organizational priorities, resource allocation, and interdepartmental collaboration (Gasco-Hernandez et al., 2022; Tran Pham, 2023).

Despite broad agreement on the importance of administrative capacity, the literature reveals significant variation in how this concept is operationalized and measured. Some studies rely on proxy indicators such as IT investment levels or formal organizational structures, while others emphasize more qualitative dimensions such as learning capacity, coordination capability, and information management. This conceptual heterogeneity complicates cross-study comparison and limits cumulative theoretical development. Moreover, many capacity-focused studies concentrate primarily on internal governmental processes, paying limited attention to how capacity constraints shape citizen-facing service outcomes. Consequently, the relationship between administrative capacity and citizen experiences of digital public services remains underexplored, highlighting the need for integrative frameworks that explicitly link capacity building to service performance and inclusiveness.

### **Competency-Based Human Resource Management and Digital Skills**

Competency-Based Human Resource Management (CBHRM) provides a micro-level analytical lens for examining how individual and collective competencies within public organizations influence digital public service delivery. In the context of local governments, CBHRM emphasizes the importance of digital literacy, data analytics skills, adaptive capacity, and collaborative competencies among civil servants. Empirical evidence suggests that local governments investing in competency development and continuous training are more capable of managing technological change, mitigating implementation risks, and sustaining digital innovations over time (Gasco-Hernandez et al., 2022; Tran Pham, 2023).

Nevertheless, the literature also identifies persistent challenges associated with CBHRM implementation in the public sector. Studies report skill mismatches between technical and non-technical staff, limited incentives for digital skill development, and rigid human resource systems that constrain flexible deployment of competencies. Furthermore, CBHRM is often examined in isolation from broader organizational and institutional contexts, resulting in fragmented analyses that overlook interactions between individual competencies, organizational capacity, and policy implementation processes. This limitation underscores the need to embed CBHRM within a more comprehensive analytical framework that connects human resource capabilities to administrative capacity and, ultimately, to the effectiveness of local digital public service delivery.

### **Citizen Readiness: Digital Divide Theory and Technology Acceptance Model**

On the demand side, the literature on digital public service delivery increasingly focuses on citizen readiness as a critical determinant of service utilization and effectiveness. Digital Divide Theory highlights persistent inequalities in access to digital infrastructure, devices, and skills, which shape citizens' ability to engage with online public services. Empirical studies consistently show that socio-economic status, age, education, and geographic location influence patterns of digital service use at the local level, often resulting in unequal outcomes despite the availability of digital platforms (Patergiannaki & Pollalis, 2024; Rosenberg, 2024).

Complementing this structural perspective, the Technology Acceptance Model (TAM) provides a behavioral framework for explaining citizen adoption of digital public services based on perceived usefulness, perceived ease of use, trust, and risk perceptions. Studies applying TAM in local government contexts demonstrate that positive user perceptions can enhance adoption even in environments characterized by moderate access constraints, whereas poorly designed or unresponsive services can discourage use despite adequate infrastructure (Horvath et al., 2023; Patergiannaki & Pollalis, 2024). However, much of the literature treats citizen readiness as an exogenous variable, insufficiently examining how administrative capacity, service design, and policy implementation choices shape citizen perceptions and capabilities. This gap limits the explanatory power of existing studies and calls for more integrative analyses linking supply-side and demand-side dynamics.

### **Policy Implementation Theory as an Integrative Perspective**

Policy Implementation Theory offers a crucial integrative perspective for understanding how administrative capacity and citizen readiness interact in the practical delivery of digital public services. From this viewpoint, digital services are not merely technological tools but policy instruments whose outcomes are shaped by regulatory frameworks, institutional arrangements, and implementation processes. Research grounded in implementation theory

highlights factors such as policy design clarity, inter-organizational coordination, information capacity, and administrative burden as key mediators between digital policy intentions and service outcomes (Peeters et al., 2023; Garcia-Rio et al., 2023).

In local government contexts, these mediating factors can either facilitate alignment between administrative capacity and citizen readiness or generate frictions that undermine digital service performance. For example, complex regulatory requirements or fragmented information systems may increase administrative burdens for both officials and users, disproportionately affecting citizens with lower digital capabilities. Despite its explanatory potential, Policy Implementation Theory remains underutilized in digital government research, which often prioritizes technological or behavioral explanations in isolation. This omission contributes to fragmented understandings of digital public service delivery and underscores the need for systematic synthesis across theoretical traditions. Integrating policy implementation perspectives with digital government, capacity, and readiness frameworks is therefore essential to explain not only whether digital public services succeed, but under what institutional conditions they produce inclusive and sustainable outcomes at the local level.

### 3. Materials and Method

This study adopts a systematic literature review (SLR) design to synthesize contemporary research on digital public service delivery in local governments, with particular emphasis on administrative capacity and citizen readiness. The SLR approach was selected to ensure methodological rigor, transparency, and replicability, as it provides a structured procedure for identifying, screening, and synthesizing peer-reviewed literature in complex and interdisciplinary research domains such as public administration and digital government (Kitchenham & Charters, 2007; Snyder, 2019). Rather than producing a descriptive summary of individual studies, this review aims to generate a conceptual synthesis that integrates fragmented theoretical and empirical insights into a coherent analytical framework.

#### Data Sources and Literature Identification

The literature corpus was constructed using multiple academic databases to maximize coverage and ensure source quality. The primary databases included Scopus and Web of Science, which are widely recognized for their rigorous indexing standards and comprehensive coverage of high-impact journals in public administration, governance, and information systems research. In addition, the Directory of Open Access Journals (DOAJ) was consulted to capture reputable open-access journals that meet established peer-review criteria. Google Scholar was used selectively as a supplementary database to minimize the risk of omitting influential and frequently cited studies. The use of multiple databases aligns with best practices in systematic review research and enhances the completeness and robustness of the literature base (Booth et al., 2016).

#### Search Strategy

A structured and reproducible search strategy was employed across all databases. Searches were conducted within article titles, abstracts, and keywords using predefined combinations of keywords and Boolean operators. The core search strings included “digital public service” OR “digital government” OR “e-government”, combined with “local government” OR “municipal government”, and further refined using terms related to explanatory dimensions, namely “administrative capacity,” “capacity building,” “competency-based HRM,” “citizen readiness,” “digital divide,” “technology acceptance,” and “policy implementation.” Boolean operators (AND, OR) were applied to balance sensitivity and specificity, ensuring the retrieval of relevant studies while limiting conceptual noise. This search strategy reflects established guidance for systematic reviews in public policy and social science research (Petticrew & Roberts, 2006).

#### Inclusion and Exclusion Criteria

Explicit inclusion and exclusion criteria were applied to guide the selection of studies. Articles were included if they (1) were peer-reviewed journal articles, (2) were published between 2021 and 2025, (3) were written in English, (4) were indexed in Scopus, Web of Science, or DOAJ, and (5) addressed digital public service delivery, digital government, or e-government in the context of local or municipal governance. Studies were excluded if they consisted of books, book chapters, conference proceedings, editorials, or policy reports, or if

they focused exclusively on technical system development without substantive engagement with administrative, institutional, or citizen-related dimensions. The application of these criteria ensured conceptual alignment with the study objectives and consistency with international standards for high-quality literature reviews (Snyder, 2019).

### **Study Selection Process**

The study selection process followed a sequential and transparent procedure inspired by PRISMA guidelines. First, all records retrieved from the databases were compiled and de-duplicated. Second, titles and abstracts were screened to assess topical relevance and theoretical alignment with digital government, administrative capacity, citizen readiness, and policy implementation. Third, full-text assessments were conducted to evaluate the depth of conceptual engagement and empirical contribution of each article. Only studies that provided substantive insights into at least one dimension of the analytical framework were retained for final synthesis. This multi-stage screening process reduces selection bias and strengthens the internal validity of the review (Moher et al., 2009).

### **Data Analysis and Synthesis**

Data analysis was conducted using thematic synthesis, a method well suited for integrating findings from heterogeneous qualitative and quantitative studies. Selected articles were coded inductively to identify recurring concepts and deductively using an integrated theoretical framework comprising Digital Government Theory, Digital Era Governance, Administrative Capacity and Capacity Building Theory, Competency-Based Human Resource Management, Digital Divide Theory, Technology Acceptance Model, and Policy Implementation Theory. Initial codes were grouped into higher-order themes, which were subsequently refined through iterative comparison across studies. This theory-informed thematic approach enables systematic comparison while preserving contextual variation across local government settings (Thomas & Harden, 2008).

### **Validity and Reliability of the Review**

Several strategies were employed to ensure the validity and reliability of the review. First, the analytical framework was applied consistently throughout all stages of coding and synthesis to minimize interpretive drift. Second, thematic categories were iteratively refined and cross-checked to ensure conceptual coherence and theoretical alignment. Third, transparency was maintained by explicitly documenting database selection, search strategies, inclusion criteria, and analytical procedures. These measures enhance the credibility, dependability, and replicability of the review, in line with methodological standards for systematic literature reviews in public administration and policy research (Booth et al., 2016; Petticrew & Roberts, 2006).

## **4. Results and Discussion**

### **Transformation of Digital Public Service Design and Performance in Local Governments**

The synthesized literature indicates that digital public service delivery in local governments has undergone a significant conceptual and operational transformation, moving beyond procedural digitalization toward integrated, citizen-centric service models. Studies grounded in Digital Government Theory and Digital Era Governance (DEG) consistently emphasize service reintegration, cross-departmental coordination, and the redesign of service processes around citizen needs rather than administrative boundaries. Empirical evidence suggests that municipalities adopting integrated digital platforms—such as one-stop services or life-event-based portals—tend to achieve improved service accessibility, reduced administrative burdens, and higher perceived service quality (Cingolani, 2021; Sundberg & Holmström, 2024). However, the literature also reveals considerable variation in performance outcomes, indicating that digital service design alone does not guarantee effectiveness. Some local governments experience limited gains due to persistent organizational fragmentation and legacy systems that constrain the operationalization of DEG principles (Fan & Pan, 2023). These findings challenge technologically deterministic assumptions and underscore that digital transformation in public services is contingent upon broader organizational and institutional conditions. Consequently, the transformation of digital public service delivery

should be understood as a socio-administrative process in which technology interacts with governance structures, organizational routines, and policy contexts rather than as a linear progression driven solely by digital innovation.

### **Administrative Capacity as a Determinant of Digital Public Service Outcomes**

Across the reviewed studies, administrative capacity emerges as a dominant determinant shaping the success or failure of digital public service initiatives in local governments. Empirical analyses consistently demonstrate that organizational capacity—including leadership commitment, strategic coordination, information infrastructure, and interdepartmental collaboration—conditions the ability of local governments to translate digital strategies into effective service delivery (Gasco-Hernandez et al., 2022; Tran Pham, 2023). Local governments with strong administrative capacity are better equipped to manage complexity, align digital initiatives with organizational goals, and sustain innovation over time. Nevertheless, the literature reveals important variations in how administrative capacity is conceptualized and measured. While some studies emphasize structural indicators such as IT investment or formal governance arrangements, others focus on softer dimensions such as learning capacity and information management (Fan & Pan, 2023). This conceptual heterogeneity contributes to mixed empirical findings and complicates cumulative knowledge building. Moreover, several studies highlight that administrative capacity alone is insufficient if not aligned with service design and citizen engagement strategies. These findings extend administrative capacity theory by demonstrating that capacity must be relational and outward-facing, linking internal organizational strengths to citizen-oriented service outcomes in digital governance contexts.

### **Competency-Based HRM and the Role of Human Capital in Digital Transformation**

At the micro-organizational level, the literature highlights Competency-Based Human Resource Management (CBHRM) as a critical but often underdeveloped component of administrative capacity in local digital government. Synthesized findings indicate that digital skills, adaptive competencies, and collaborative capabilities among public officials significantly influence the implementation quality and sustainability of digital public services (Gasco-Hernandez et al., 2022; Tran Pham, 2023). Local governments that invest in continuous training and competency development are more capable of managing technological change and responding to evolving citizen expectations. However, the literature also identifies persistent challenges, including skill mismatches between technical and administrative staff, limited incentives for digital upskilling, and rigid HRM systems that hinder flexible deployment of competencies. These constraints often result in partial or uneven implementation of digital services, even when technological infrastructure is available. Importantly, existing studies tend to examine competencies in isolation, without sufficiently integrating them into broader analyses of organizational capacity and policy implementation. This gap suggests that CBHRM should be theorized not merely as an HR function but as an integral component of digital governance capacity that mediates between organizational strategies and citizen-facing outcomes.

### **Citizen Readiness, Digital Divide, and Technology Acceptance**

On the demand side, the synthesized literature underscores citizen readiness as a decisive factor shaping the utilization and effectiveness of digital public services at the local level. Studies drawing on Digital Divide Theory consistently reveal that disparities in access to digital infrastructure, devices, and skills continue to influence patterns of service use, often disadvantaging older adults, rural populations, and lower socio-economic groups (Patergiannaki & Pollalis, 2024; Rosenberg, 2024). Complementing this structural perspective, research informed by the Technology Acceptance Model (TAM) demonstrates that perceived usefulness, ease of use, trust, and perceived risk significantly affect citizens' willingness to adopt digital services. Empirical findings indicate that even when access barriers are reduced, poorly designed or unresponsive services can undermine adoption due to negative user perceptions (Patergiannaki & Pollalis, 2024; Horvath et al., 2023). However, the literature exhibits a tendency to treat citizen readiness as an exogenous variable, insufficiently accounting for how administrative capacity, service design choices, and policy frameworks

shape citizen perceptions and capabilities. This limitation highlights the need to reconceptualize citizen readiness as a dynamic outcome co-produced by governments and users rather than as a fixed precondition for digital service success.

### **Policy Implementation as a Mediating Mechanism between Capacity and Readiness**

Policy Implementation Theory provides an integrative lens for interpreting how administrative capacity and citizen readiness interact in practice. Synthesized findings indicate that digital public services function as policy instruments whose outcomes depend on regulatory clarity, institutional coordination, and administrative burden management (Peeters et al., 2023; Garcia-Rio et al., 2023). At the local level, complex regulatory requirements, fragmented information systems, and insufficient coordination across agencies often create implementation bottlenecks that undermine both service performance and citizen uptake. For instance, studies show that poorly integrated data systems can increase administrative burdens for citizens, disproportionately affecting those with lower digital skills (Peeters et al., 2023). These findings challenge simplistic narratives of digital efficiency by revealing how policy design and implementation processes mediate the relationship between capacity and readiness. Despite its explanatory potential, policy implementation theory remains underutilized in digital government research, which frequently prioritizes technological or behavioral explanations in isolation. Integrating implementation perspectives into digital government analyses thus offers a more nuanced understanding of why similar digital initiatives yield divergent outcomes across local contexts.

### **Integrative Discussion: Interactions among Design, Capacity, and Readiness**

Taken together, the synthesized findings reveal that the effectiveness of digital public service delivery in local governments is shaped by the dynamic interaction among service design, administrative capacity, and citizen readiness. Digital Government Theory and DEG provide a macro-level vision of integrated and citizen-centric services, but their realization depends on sufficient administrative and human resource capacities as well as supportive policy implementation frameworks (Cingolani, 2021; Sundberg & Holmström, 2024). At the same time, citizen readiness is not merely a contextual constraint but an outcome influenced by governmental choices regarding service design, communication, and inclusiveness. The literature collectively challenges linear and technology-centric models of digital transformation, instead supporting a relational and process-oriented understanding of digital public service delivery. Conceptually, this synthesis extends existing theories by demonstrating that capacity and readiness are mutually constitutive rather than independent determinants. Practically, it suggests that local governments must pursue integrated strategies that simultaneously strengthen administrative capacity, invest in human capital, reduce digital divides, and design policies that minimize administrative burdens. Such an integrated approach is essential for achieving inclusive and sustainable digital public services in diverse local governance contexts.

## **5. Comparison**

### **Comparing Technology- and Design-Centric Studies with Capacity-Oriented Explanations**

A first comparison across the reviewed literature distinguishes technology- and design-centric approaches—anchored in Digital Government and Digital Era Governance (DEG)—from explanations that foreground administrative capacity. Studies emphasizing digital government and DEG commonly argue that performance gains emerge when local governments redesign services toward integration, citizen-centricity, and cross-departmental coordination, positioning platforms as vehicles for reintegration and service coherence (Sundberg & Holmström, 2024; Cingolani, 2021). In contrast, capacity-oriented studies demonstrate that similar design aspirations often fail to materialize when local governments lack leadership commitment, organizational coordination mechanisms, or information infrastructure to operationalize integrated service models (Gasco-Hernandez et al., 2022; Fan & Pan, 2023). Across these streams, there is convergence in acknowledging that service performance is not purely technical; however, they diverge in causal emphasis. Technology-centric studies frequently attribute divergence primarily to design maturity and platform

governance, whereas capacity studies interpret divergence as rooted in institutional and organizational capabilities that condition implementation. This comparison implies that policy prescriptions differ accordingly: design-centric research prioritizes service architecture and integration logic, while capacity research prioritizes organizational strengthening and resource alignment as preconditions for effective delivery. The synthesis thus indicates that a DEG-informed transformation narrative is empirically contingent upon administrative capacity and cannot be treated as universally transferable across municipalities (Sundberg & Holmström, 2024; Gasco-Hernandez et al., 2022).

### **Comparing Administrative Capacity, Capacity Building, and CBHRM Perspectives**

Within the capacity-oriented body of work, a second comparison concerns whether researchers conceptualize capacity primarily as organizational and infrastructural capability or as human capital and competency capability. Organizational capacity studies highlight leadership, coordination, and information systems as determinants of digital transformation trajectories and the durability of local digital services (Gasco-Hernandez et al., 2022; Fan & Pan, 2023). By contrast, research that explicitly links capacity to competency emphasizes the role of civil servant skills, adaptive learning, and HRM practices that shape an organization's ability to implement and sustain digital services (Tran Pham, 2023). While these approaches are complementary, the literature often treats them as parallel rather than integrated explanations. Organizational accounts may under-specify how competencies are cultivated and mobilized, while competency-oriented accounts may under-theorize the organizational structures that enable skills to translate into institutional performance. Consequently, policy implications vary: organizational capacity work tends to recommend governance redesign, interdepartmental coordination, and investment in data infrastructure, whereas CBHRM-aligned work implies workforce development strategies such as targeted training, role redesign, and competency management systems. The comparative synthesis suggests that digital public service performance is most plausibly explained when capacity is framed as an interdependent system—combining institutional coordination, infrastructure, and competency development—rather than as a single-dimensional construct (Gasco-Hernandez et al., 2022; Tran Pham, 2023).

### **Comparing Citizen Readiness Research: Digital Divide versus Technology Acceptance**

A third comparison concerns the demand-side literature, which differs in whether it treats citizen readiness as a structural inequality problem (Digital Divide Theory) or as an attitudinal-behavioral adoption problem (TAM). Digital divide studies consistently show that access to devices, connectivity, and digital skills stratifies service use, generating unequal benefits across age, socio-economic status, and geographic location; these works emphasize inclusiveness risks when local governments rely heavily on digital-only channels (Patergiannaki & Pollalis, 2024; Rosenberg, 2024). TAM-oriented studies, by contrast, interpret uptake differences through perceived usefulness, ease of use, trust, and risk, implying that service design quality and user experience can meaningfully alter adoption even when structural access constraints remain (Patergiannaki & Pollalis, 2024; Horvath et al., 2023). Although both streams converge in recognizing that citizen-facing outcomes are central, they generate distinct policy prescriptions. Digital divide research prioritizes infrastructure expansion, assisted digital support, and inclusive channel strategies, whereas TAM research emphasizes usability, responsiveness, and trust-building features in digital service design. Notably, the literature rarely integrates these perspectives to explain how structural access barriers interact with perceptions of value and ease of use. This comparison indicates that local digital services may underperform not only because citizens “cannot” access them but also because citizens “choose not to,” and the two mechanisms may reinforce each other in practice (Rosenberg, 2024; Patergiannaki & Pollalis, 2024).

### **Cross-Context Comparison: Developed versus Developing Settings and Local Government Heterogeneity**

Comparing contexts, the literature suggests systematic differences between developed and developing settings, as well as across local government types. In relatively high-capacity environments, design-centric and DEG-oriented expectations—such as service reintegration and citizen-centricity—appear more feasible, though still constrained by organizational fragmentation and interdepartmental coordination challenges (Sundberg & Holmström, 2024; Fan & Pan, 2023). In developing or transitional contexts, studies more frequently foreground administrative capacity constraints and uneven citizen readiness as binding limitations to digital service success, indicating that institutional capabilities and social conditions can dominate the effects of platform design alone (Tran Pham, 2023). Moreover, local heterogeneity within countries matters: municipalities vary widely in leadership, fiscal capacity, digital skills, and data infrastructure, producing uneven outcomes even under similar national frameworks (Gasco-Hernandez et al., 2022). On the citizen side, readiness and acceptance patterns also differ by demographic composition and digital skill distribution, with older adults and digitally disadvantaged groups consistently facing barriers to effective use (Rosenberg, 2024). Policy implications therefore diverge by context: high-capacity municipalities may benefit most from integration and service redesign, whereas low-capacity municipalities require targeted capacity building, workforce development, and inclusive access strategies. This cross-context comparison strengthens the argument that local digital government should be assessed as a capacity-sensitive, context-dependent process rather than a uniform modernization pathway (Tran Pham, 2023; Gasco-Hernandez et al., 2022).

### **Comparing the Use of Policy Implementation Theory in Explaining Sustainability and Outcomes**

Across the reviewed literature, Policy Implementation Theory is used unevenly, often implicitly rather than explicitly, despite its high explanatory value for linking administrative capacity and citizen readiness. Studies that employ implementation-oriented constructs highlight how information capacity, administrative burden, and coordination shape whether digital services reduce transaction costs or instead reproduce new burdens for citizens (Peeters et al., 2023). This contrasts with much of the digital government and adoption literature, which tends to prioritize either system design and platform performance or individual acceptance determinants, leaving institutional implementation mechanisms under-specified (Garcia-Rio et al., 2023; Fan & Pan, 2023). The comparative pattern indicates that the sustainability of local digital services depends not only on adopting platforms or improving user experience but also on the coherence of regulatory design, the integration of back-office processes, and the management of implementation frictions that accumulate over time. Where implementation theory is absent, policy recommendations often become overly generic (e.g., “increase adoption” or “improve platforms”) and less actionable regarding institutional reforms. Conversely, implementation-focused studies provide more diagnostic prescriptions, such as simplifying procedural requirements, improving data integration, and reducing administrative burdens that disproportionately affect low-readiness citizens (Peeters et al., 2023). This comparison underscores that implementation theory is not ancillary but central to explaining why capacity and readiness translate—or fail to translate—into sustainable service outcomes.

### **Contribution of This Review: Bridging Fragmented Streams through an Integrative Comparative Synthesis**

The comparative synthesis presented in this section clarifies that state-of-the-art literature on local digital public service delivery remains fragmented across three dominant streams: technology/design (Digital Government and DEG), organizational and human capacity (Administrative Capacity, Capacity Building, and CBHRM), and citizen readiness/adoption (Digital Divide and TAM). While each stream contributes robust insights, their isolated use produces partial explanations and inconsistent policy prescriptions. This review contributes by explicitly comparing and integrating these perspectives, demonstrating that digital service design outcomes are contingent upon administrative and competency capacities, and that citizen readiness is shaped by both structural divides and service experience mechanisms, all mediated by policy implementation conditions (Sundberg & Holmström, 2024; Gasco-Hernandez et al., 2022; Patergiannaki & Pollalis, 2024; Peeters et al., 2023). By bridging these streams, the article advances a more comprehensive understanding of local digital governance as an interactive system rather than a set of independent determinants. This integrative stance enriches the conceptual toolkit of digital

public administration, supports more context-sensitive policy design, and provides a clearer agenda for future research aimed at explaining variability, equity, and sustainability in local digital public service delivery.

## 6. Conclusion

This literature review synthesizes recent state-of-the-art research on digital public service delivery in local governments and demonstrates that administrative capacity and citizen readiness constitute the two most decisive and interdependent determinants of success or failure in local digital service initiatives. Across the reviewed studies, digital transformation is consistently shown to extend beyond technological adoption toward a broader socio-administrative process shaped by organizational capacity, human competencies, institutional coordination, and citizen engagement. While Digital Government Theory and Digital Era Governance (DEG) provide a compelling vision of integrated, citizen-centric services, the literature reveals that such models can only be realized where local governments possess sufficient administrative capacity, including leadership commitment, coordination mechanisms, and information infrastructure (Cingolani, 2021; Gasco-Hernandez et al., 2022; Sundberg & Holmström, 2024). At the same time, citizen readiness—shaped by digital divide conditions and technology acceptance factors—emerges as a critical demand-side constraint, indicating that digital services may underperform or exacerbate inequalities if access, skills, trust, and perceived usefulness are not adequately addressed (Patergiannaki & Pollalis, 2024; Rosenberg, 2024).

By integrating these findings, this review directly addresses the research gap identified in the introduction: the fragmentation of the literature across technological, organizational, and citizen-focused perspectives. The synthesized evidence demonstrates that no single theoretical lens sufficiently explains variation in local digital public service outcomes. Instead, the review advances a multi-theoretical integration that combines Digital Government Theory and DEG with Administrative Capacity and Capacity Building Theory, Competency-Based HRM, Digital Divide Theory, Technology Acceptance Model, and Policy Implementation Theory. This integration enriches conceptual understanding by showing that administrative capacity and citizen readiness are not independent variables but mutually constitutive elements mediated by policy design and implementation processes (Tran Pham, 2023; Peeters et al., 2023). In doing so, the review contributes to the digital public administration literature by reframing digital public service delivery as an interactive system in which organizational capabilities, human competencies, institutional arrangements, and citizen perceptions dynamically shape outcomes.

The findings yield several theoretical and practical implications. Theoretically, the review extends digital government scholarship by embedding capacity and readiness within an implementation-oriented framework, challenging technology-centric and linear models of digital transformation. It underscores the need for future research to theorize digital public services as policy instruments whose effectiveness depends on institutional capacity and social conditions rather than platform design alone (Fan & Pan, 2023; Garcia-Rio et al., 2023). Practically, the synthesis suggests that local governments should pursue integrated strategies that simultaneously strengthen administrative and human resource capacities, reduce digital divides, and design services that are usable, trustworthy, and responsive to citizen needs. Policy interventions focused solely on digital platforms risk producing uneven or exclusionary outcomes unless accompanied by capacity building, workforce development, and inclusive access measures (Gasco-Hernandez et al., 2022; Patergiannaki & Pollalis, 2024).

Despite its contributions, this literature review has several limitations. The analysis is constrained by its reliance on peer-reviewed journal articles published in English and indexed in major academic databases, which may underrepresent locally grounded studies or non-English scholarship. In addition, while the review captures diverse regional contexts, empirical evidence from low-capacity and peripheral local governments remains comparatively limited. Future research should therefore expand empirical coverage across diverse institutional and socio-economic settings, employ mixed-method and comparative designs, and examine longitudinal dynamics of capacity development and citizen readiness. Further studies could also explore how emerging technologies, such as artificial intelligence in public services, reshape administrative capacity requirements and citizen acceptance over time (Horvath et al., 2023). Addressing these directions will be essential for advancing a more inclusive, context-sensitive, and sustainable agenda for digital public service delivery in local governments.

**Author Contributions:** “Conceptualization, A.W.; A.M.; S.K.; Methodology, A.W.; A.M.; Formal analysis, A.W.; U.A.; Writing, A.W. The author has read and agreed to the published version of the manuscript”

**Funding:** “This research received no external funding”

**Data Availability Statement:** “This article is a literature review and does not generate new primary data. All materials analyzed in this study are derived from publicly available secondary sources, including peer-reviewed journal articles and conference proceedings indexed in recognized academic databases.”

**Acknowledgments:** “The author gratefully acknowledges institutional and academic support that facilitated the completion of this review. The author also acknowledges the use of artificial intelligence–assisted tools for language refinement and editorial support, applied in accordance with responsible research and publication ethics, without altering the scholarly interpretation or substantive content of the manuscript.”

**Conflicts of Interest:** “The authors declare no conflict of interest.”

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