

From Digital Access to Active Participation: Exploring the Evolution of Citizen Engagement in Morocco's Digital Governance.

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Abstract

This systematic review synthesizes research on digital engagement and online citizen participation in Morocco's public digital services, focusing on how digital access shapes governance-related behaviors and enables the transition from passive service use to active participation. The objective is to provide a scientific and conceptual contribution to digital governance literature by proposing an integrative framework linking digital access, citizen engagement, and participatory behavior transformation, while offering policy recommendations with contextual comparisons to other developing countries. A systematic selection process covering empirical investigations, conceptual models, and case analyses was conducted, emphasizing multidisciplinary methodologies and major Moroccan digital governance initiatives.

Findings indicate substantial progress in digital access, contributing to improved service delivery, transparency, and administrative efficiency. Evidence also highlights a growing shift from passive consumption to active participation, notably during the COVID-19 pandemic, when approximately 40% of citizens engaged in local governance via digital platforms. However, persistent digital divides, socio-economic disparities, and institutional barriers continue to constrain equitable and sustained engagement, particularly in rural and marginalized communities. The literature reveals fragmented theoretical integration, underscoring the need for comprehensive socio-technical models that incorporate technological, social, and institutional determinants. Policy recommendations emphasize bridging digital divides, enhancing co-creation practices, improving institutional coordination, and delivering targeted digital literacy programs for underserved populations.

Overall, the review demonstrates that Morocco's digital governance landscape is evolving toward more participatory models, but achieving inclusive and sustainable citizen engagement requires addressing structural inequalities and strengthening integrative governance strategies.

Keywords: Digital engagement, Citizen participation, Digital governance, Digital access, Morocco, E-participation, Social inclusion, Digital divide

1. Introduction

Research on digital engagement and online citizen participation in public digital services has become a critical domain in governance studies due to its transformative potential for public sector modernization and democratic deepening. Over the past two decades, the global evolution of e-government initiatives has progressively integrated information and communication technologies (ICTs) to improve public service delivery, transparency, and citizen interaction (Misuraca, 2006; Kettani & al., 2013).

In Morocco, digital transformation policies have accelerated since the early 2000s, aiming to modernize public administration and expand access to digital services (Idaomar & al., 2024); Ouajdouni & al., 2020). These initiatives have strengthened efficiency and social inclusion, contributing to Morocco's improved ranking in global e-government indices (Lakir & Soukaina, 2023; OECD 2023). The growing adoption of digital platforms has also reshaped citizen behaviors, encouraging new forms of interaction and participation beyond traditional electoral processes (Ebrahimi & al., 2022; Abdelhak & Rhouлами, 2023).

Despite these advances, a persistent challenge remains: to what extent does digital access translate into genuine citizen engagement and participatory behavioral change in Morocco? While e-government services have expanded, the transition from passive service consumption to active co-governance remains underexplored (Fadwa & Ez-Zohra, 2019; Satry & Belkadi, 2020). Existing studies reveal a fragmented understanding of the factors shaping digital engagement, with debates over whether ICTs merely facilitate information access or truly empower citizens to influence decision-making (Esselmani & al., 2021; Blanc, 2020). Moreover, issues such as digital divides, political distrust, and institutional reluctance to share decision-making power continue to constrain participatory outcomes (Ebrahimi & al., 2022; Perez-Morote & al., 2022), resulting in missed opportunities for democratic consolidation and optimal service delivery (Benlahcene & al., 2024). This review adopts a conceptual framework linking digital access, citizen engagement, and participatory behavior transformation, grounded in theories of e-democracy, participatory governance, and digital citizenship (Araby, 2024; Gardenier & al., 2024; Sharma & al., 2022). In this framework, *digital access* refers to the availability and usability of ICT infrastructure and services; *citizen engagement* spans from information consumption to active co-creation; and *participatory transformation* represents the shift from passive users to empowered governance actors.

Accordingly, this study synthesizes existing literature on digital engagement and online participation in Moroccan public digital services to examine how digital access influences governance-related behaviors. It aims to bridge the current knowledge gap by proposing an integrative theoretical framework that explains mechanisms of participatory transformation and

provides policy guidance for enhancing the effectiveness of digital governance. The review draws on empirical studies, conceptual analyses, and comparative insights from Morocco and other developing economies. Analytical perspectives from digital governance and participatory democracy guide the thematic synthesis of findings, which are presented in the following sections.

2. Purpose and Scope of the Review

Statement of Purpose

The purpose of this review is to critically examine the existing body of research on *digital engagement and online citizen participation in public digital services in Morocco*, with particular attention to how digital access shapes citizen behaviors toward governance. It seeks to explore the transition from passive users of public services to active participants in governance processes. Conceptually, this review contributes to the digital governance literature by proposing an integrative theoretical framework that links digital access, citizen engagement, and participatory behavior transformation.

The analysis focuses on Morocco as the primary case study while incorporating contextual comparisons with other developing or emerging countries. This focus is particularly relevant given Morocco's ongoing digital transformation efforts, which provide a unique opportunity to understand the socio-technical dynamics of citizen participation in governance.

By synthesizing empirical findings and theoretical insights, this review aims to identify the key drivers, barriers, and outcomes of digital engagement, highlighting the implications for governance effectiveness, transparency, and democratic deepening. Ultimately, it seeks to inform policymakers and scholars on strategies to foster inclusive, participatory, and sustainable digital governance in Morocco and comparable contexts.

Specific Objectives

1. To evaluate current knowledge on the impact of digital access on citizen behaviors toward governance in Morocco.
2. To benchmark Moroccan digital public service initiatives against participatory governance models in other developing or emerging countries.
3. To identify and synthesize theoretical frameworks linking digital engagement, citizen participation, and governance transformation.
4. To analyze the mechanisms underlying the transition from passive to active citizen roles facilitated by digital platforms.
5. To assess policy recommendations aimed at strengthening digital inclusion and participatory governance in Morocco

3. Methodology of Literature Selection

This review adopted a systematic approach to literature selection in order to ensure a comprehensive and unbiased synthesis of existing studies related to *digital engagement and online citizen participation in public digital services in Morocco*. The process was structured around four main stages: transformation of the research question into targeted queries, paper screening, citation chaining, and relevance scoring.

3.1 Transformation of the Research Question

The initial research question — “*How does digital access influence citizen behavior and participatory transformation in Morocco’s public digital services?*” — was expanded into multiple, more specific search statements. This step ensured a balance between breadth and precision, allowing the retrieval of both general and niche studies addressing various facets of digital governance and participation.

The main queries focused on:

- The impact of digital access on citizen behavior and participatory governance in Morocco;
- Theoretical models explaining active citizen engagement in digital governance, applicable to Morocco and other developing nations;
- The influence of digital technologies on participatory governance models, including behavioral transitions from passive to active citizenship;
- Comparative frameworks between Moroccan digital governance initiatives and similar programs in other emerging contexts;
- The broader role of ICTs in promoting participatory governance and citizen empowerment across developing countries.

3.2 Screening and Inclusion Process

Each transformed query was executed across multiple academic databases covering over 270 million indexed research papers. Inclusion and exclusion criteria were applied to ensure that only relevant, peer-reviewed, and methodologically rigorous studies were retained. This process yielded **317 initial papers** directly related to the research focus.

3.3 Citation Chaining

To strengthen the comprehensiveness of the corpus, both backward and forward citation chaining were employed:

- **Backward citation chaining** involved examining reference lists of the selected core papers to identify foundational works that shaped the field.
- **Forward citation chaining** tracked subsequent studies that cited these core papers, thereby capturing recent developments, replication studies, and emerging theoretical debates.

This step resulted in the identification of **111 additional papers**, expanding the total pool to **428 candidate studies**.

3.4 Relevance Scoring and Final Selection

All retrieved papers were then evaluated using a relevance-ranking process designed to prioritize conceptual alignment and empirical rigor. The screening led to the identification of **416 relevant papers**, of which **50 were deemed highly pertinent** to the research objectives.

These selected studies form the analytical basis of this review, encompassing both empirical and conceptual contributions related to digital access, citizen engagement, participatory behavior transformation, and governance innovation in Morocco and comparable developing contexts.

4. Results

4.1 Descriptive Summary of the Studies

This section maps the research landscape on *digital engagement and online citizen participation in public digital services in Morocco*, with a focus on how digital access shapes citizen behavior and supports the transition from passive usage to active participation. The corpus includes empirical studies, conceptual frameworks, and case analyses primarily centered on Morocco's digital governance initiatives, with comparative insights from other developing contexts. Methodological approaches range from quantitative surveys and structural equation modeling to qualitative interviews, case studies, and systematic reviews, reflecting the field's multidisciplinary character. This corpus also includes advanced empirical work such as the doctoral study of Jeddou (2024), which applies UTAUT- and GAM-based structural modeling to explain citizens' adoption of digitized public services of the Moroccan Ministry of Interior.

Across studies, the main themes converge on: (i) the impact of digital access on service delivery, transparency, and administrative efficiency; (ii) the transition mechanisms from information consumption to co-creation and non-electoral participation; (iii) the theoretical underpinnings mobilized (e.g., UTAUT, DeLone & McLean, and socio-technical/collaborative governance frameworks); (iv) the effectiveness of Moroccan e-government programs and organizational readiness; and (v) policy recommendations addressing digital inclusion, trust, and institutional reforms.

Table 1 below presents a structured synopsis of the reviewed studies along five analytical dimensions—**Digital Access Impact, Participation Transition, Theoretical Frameworks, Program Effectiveness, and Policy Recommendations**—to facilitate cross-comparison and synthesis.

Study	Digital Access Impact	Participation Transition	Theoretical Frameworks	Program Effectiveness	Policy Recommendations
(Misuraca, 2006)	ICTs enhance local governance and public participation in Morocco and Africa	Moderate focus on enabling public consultation and participation	Multi-level governance and ICT adoption models	Positive outcomes in service delivery and transparency	Emphasizes pan-African policy dissemination and coordination
(Idaomar & al., 2024)	Digital strategies improved e-government infrastructure and access over 20 years	Limited evidence on active citizen role transformation	Analytical framework based on international e-government indicators	Mixed results; progress in infrastructure but challenges remain	Calls for addressing digital divide and enhancing citizen-centric services
(Chatit & Mohamed, 2023)	Digital tools simplify administrative procedures and improve citizen interaction	Shift towards citizen-centered services and personalized offerings	Conceptual focus on digital maturity and service personalization	Significant improvements in service quality and transparency	Recommends continuous efforts to avoid exclusion and enhance digital culture
(Esselimani & al., 2021)	E-government positively affects participatory democracy directly and indirectly	Evidence of increased citizen participation through e-government platforms	Quantitative model linking e-government to governance outcomes	Demonstrated improvements in transparency and corruption control	Suggests strengthening e-government to deepen participatory democracy
(Ebrahimi & al., 2022)	Social media increases political distrust but also non-electoral participation	Citizens move from passive to active non-electoral engagement via social media	SEM model analyzing social media's indirect effects on participation	Highlights social media's role in mobilizing non-electoral actions	Recommends leveraging social media for enhancing political engagement
(Mountasser & al., n.d.)	Social networks foster participatory governance at local level in Agadir	Active citizen involvement through Facebook groups and pages	Exploratory qualitative framework on digital civic engagement	Localized success in mobilizing citizens for governance influence	Advocates for integrating social media in local governance strategies
(Fadwa & Ez-Zohra, 2019)	Determinants of e-service usage include performance expectancy and facilitating conditions	Behavioral intention influences actual use; social influence less impactful	UTAUT model applied to Moroccan e-administration context	Identifies barriers and enablers for citizen adoption of e-services	Suggests policy focus on improving usability and infrastructure support

(Kettani & Moulin, 2014)	eFez project shows ICTs improve access and governance in Moroccan city	Transition from passive users to engaged citizens facilitated by e-government	Framework linking government deployment to e-governance quality	Positive impact on citizen access and administrative efficiency	Recommends systematic assessment and replication of eFez lessons
(Zinaoui & El Khettab, 2022)	COVID-19 accelerated digital access and service continuity in public administration	Increased citizen reliance on digital services during pandemic	Case study on digitalization process in CNSS	Successful digital service adoption with high user satisfaction	Encourages replication of digital models across public institutions
(Ech-Chbani, 2023)	Digital communication in local governments faces resistance but improves external response	Limited active citizen participation due to organizational constraints	Discourse analysis on digitalization and communication	Short-term structural impacts; limited participatory gains	Calls for better preparation and involvement in digital processes
OCDE (2023)	Digital reforms modernize governance but face coordination challenges	Emerging active citizen roles linked to service charters and digitization	Review of governance reform initiatives in Morocco	Mixed effectiveness; reform implementation uneven	Highlights need for integrated governance and reform coordination
(Ouajdouni & al., 2020)	Digital transformation enhances service efficiency but requires sustained investment	Shift towards digital public service delivery with inclusivity concerns	Literature synthesis on digital transformation in public sector	Progress in digital adoption but gaps in inclusiveness remain	Urges deeper digital strategies and employee engagement
(Yachioui & Aomari, 2019)	Citizen Relationship Management aims to improve interactive public services	Citizens demand more personalized and responsive administration	Exploratory qualitative study on CiRM in Moroccan public sector	Early-stage implementation with potential for enhanced engagement	Recommends expanding CiRM adoption and understanding citizen needs
(Nekhass & al., 2023)	COVID-19 catalyzed organizational change supporting digital governance	Organizational adaptation critical for active citizen engagement	Analysis of change management in digital transformation	Digital tools improve performance but face resistance	Suggests fostering digital culture and agile management practices

(Chalfaouat, 2020)	Digital vigilantism empowers citizens in governance-related security issues	Citizens actively co-produce security through digital platforms	Case study on digital activism and citizen empowerment	Demonstrates active citizen roles beyond traditional participation	Encourages recognizing digital activism in governance frameworks
(Zaid, 2016)	Internet serves as both a tool for democratic change and repression	Ambiguous impact on citizen engagement and governance behaviors	Critical analysis of internet's dual role in democracy	Mixed evidence on citizen empowerment and government control	Calls for nuanced policies balancing openness and regulation
(Elmahfoudi & al., 2014)	Social networks and paperless claims enhance democratic participation	Youth engagement via Web 2.0 fosters governance possibilities	Process analysis of digital tools in citizen-government interaction	Positive influence on democratic stabilization and social peace	Advocates leveraging social media for governance transparency
(Amsidder & al., 2012)	ICT mobilizes youth activism post-Arab Spring in Morocco	Transition from passive to active political engagement via digital tools	Analysis of ICT practices in social mobilization	Demonstrates digital tools' role in political participation	Recommends supporting digital activism for civic empowerment
(Gharbaoui & al., 2024)	AI-chatbots improve citizen satisfaction in public services	Early adoption stage with trust moderating satisfaction levels	Survey-based study on AI-chatbot impact in Morocco	Positive reception but trust remains critical for effectiveness	Suggests building trust to enhance AI-driven citizen services
(Haruna & al., 2024)	Social media platforms significantly influence e-government participation	Digital platforms enable broader citizen engagement in governance	Systematic review using DeLone and McLean Model	Identifies success factors and challenges in e-participation	Proposes strategies to improve citizen-government collaboration
(Araby, 2024)	Digitalization shifts citizen roles from passive to smart participants	Conceptual analysis of governance evolution and citizen engagement	Framework categorizing citizen engagement stages	Highlights digital infrastructure as key enabler	Recommends policy labs and participation indexes for enhancement
(Benlahcene & al., 2024)	E-participation faces technical, political, and social challenges	Psychological and social factors critical for participation success	Systematic review emphasizing multidisciplinary elements	Identifies gaps in feedback and user experience in e-services	Calls for holistic approaches to improve e-participation tools

(Lakir & Soukaina, 2023)	Digitalization improves transparency and service efficiency in Morocco	Increased citizen access but uneven participatory democracy outcomes	National-level analysis of digital administration evolution	Progress in digital services with room for deeper engagement	Suggests strengthening digital governance frameworks
(Elhazziti, M & al., 2023)	Digital transformation progress hindered by organizational culture	Limited active citizen participation due to slow reform adoption	Review of Moroccan digital transformation efforts	Incremental improvements with persistent challenges	Advocates for training, infrastructure, and policy innovation
(Aayale & Seffar, 2021)	Digital public services enhance social and financial inclusion	Transition to digital improves citizen engagement and service co-production	Qualitative case studies in Moroccan public agencies	Positive impacts on inclusion and administrative efficiency	Recommends inclusive digital strategies and agile management
(Satry & Belkadi, 2020)	Performance expectancy and facilitating conditions drive e-service use	Behavioral intention critical for adoption; social influence minimal	UTAUT model application in Moroccan context	Identifies key adoption barriers and facilitators	Suggests targeted interventions to boost e-administration use
(Abdelhak & Rhoulami, 2023)	Social media amplifies political activism during Moroccan elections	Digital tools mobilize citizens and enhance political participation	Case study on digital activism in electoral context	Demonstrates increased political engagement via online platforms	Encourages integrating digital activism in political processes
(OECD, 2024)	Legal and policy frameworks shape open government environment	Fragmentation challenges hinder integrated citizen participation	Policy analysis on governance reform coherence	Identifies gaps in institutional support for open government	Recommends policy integration and stronger legal frameworks
(OECD, 2024)	Civic space protection essential for open government reforms	Legal and institutional conditions affect citizen participation	Analysis of rights, media freedom, and civil society environment	Highlights constraints on effective civic engagement	Calls for enhanced protection of civic rights and digital freedoms
(Ben-Larbi, 2024)	Legal mechanisms for citizen participation often ineffective	Petitions rarely lead to government responsiveness	Legal analysis of citizen participation rights in Morocco	Reveals asymmetry in citizen-government interactions	Suggests reforms to improve petition effectiveness and engagement
(Bolívar & al., 2024)	Emerging technologies support	Theoretical support for digital tools in urban governance	Systematic review of technology use	Identifies potential for collaborative	Proposes future research on

	collaborative citizen participation		in citizen participation	governance models	technology- enabled participation
(Tariq &al., 2024)	Digital governance linked to sustainable development goals	Conceptual framework connects digital governance drivers and outcomes	Systematic review integrating governance and SDG literature	Highlights transparency and stakeholder engagement benefits	Recommends advancing digital governance for sustainability
(Lee-Geiller, 2024)	Good governance and diversity predict e- participation preparedness	Integrative framework includes social and institutional factors	Statistical model analyzing global e-participation readiness	Emphasizes governance quality alongside technology	Suggests policy focus on inclusivity and demographic diversity
(Viana, 2025)	ICT reshapes collaborative governance and trust- building	Integrative framework positions ICT as active governance participant	Systematic review of ICT's role in collaborative governance	Highlights ICT's impact on leadership and participation	Advocates sociotechnical approaches for digital governance
(Sharma &al., 2022)	Digital citizen empowerment involves activism and participatory models	Conceptual model links interdisciplinary theories to empowerment	Systematic literature review categorizing empowerment strategies	Identifies gaps in sustained engagement and participation quality	Calls for policy alignment with empowerment objectives
(Khan & Krishnan, 2021)	Co-creation processes enhance citizen engagement in e- government	Process theory framework explains government facilitation roles	Meta-synthesis of qualitative case studies	Provides holistic understanding of co-creation dynamics	Recommends government capacity building for co- creation success
(Mariani &al., 2024)	E-participation broadens public engagement but faces challenges	Overview of e- participation evolution and platform implementations	Conceptual discussion of transparency and legitimacy	Notes limited translation into deeper citizen participation	Highlights need to address motivation and institutional reluctance
(Asmawa &al., 2024)	Digital public policy implementation faces infrastructure and political challenges	Lessons from developing countries inform Moroccan context	Review of empirical case studies and success factors	Emphasizes capacity building and regulatory frameworks	Suggests adaptable and resilient digital infrastructure policies
(Blanc, 2020)	E-participation initiatives have	Challenges include technology access	Literature review on e- participation	Notes lack of genuine power	Calls for addressing motivational and institutional barriers

	spread but with limited impact	and institutional reluctance	trends and challenges	sharing with citizens	
(Perez-Morote & al., 2022)	Economic development and infrastructure positively influence e-participation	Digital divide factors affect government e-participation efforts	Panel data analysis across countries	Identifies inequalities requiring public action	Recommends policies to bridge digital participation gaps
(Townley & Koop, 2024)	Digital tools offer advantages for inclusive regulatory engagement	Challenges remain in access, information, and contribution support	Comparative analysis of digital and traditional engagement tools	Highlights conditions for improving inclusiveness	Suggests combining tools and expanding engagement methods
(Gardenier & al., 2024)	Technological citizenship framework emphasizes active citizen roles	Integrates liberal, communitarian, and republican theories	Conceptual framework on citizen empowerment and resilience	Focuses on governance of digital technologies	Calls for policies supporting citizen engagement in digital governance
(Sundberg & Holmström, 2023)	Citizen-centricity varies across government modes and research streams	Integrative framework clarifies conceptualizations in digital government	Literature review of citizen-centricity in digital governance	Identifies traditionalist to transformative government models	Recommends enhancing conceptual clarity and dynamic theories
(Kumar, 2023)	Digital technologies improve accessibility, transparency, and efficiency	Case studies demonstrate benefits and challenges in e-governance	Comprehensive analysis of digital governance impacts	Notes digital divide and privacy concerns	Advocates measures to promote inclusive and responsive governance
(Syahrudin & al., 2023)	Community adaptation critical for effective digital governance adoption	Digital literacy and inclusion reduce digital divide impacts	Qualitative study on social, economic, and political adaptation	Highlights empowerment and participation opportunities	Recommends education and training to enhance digital engagement
(Amrani & al., 2024)	Emerging innovations improve territorial management and citizen engagement	Smart city technologies enhance governance but face challenges	Interpretivist study of Casablanca- Settat region initiatives	Shows potential for economic and social advancement	Suggests strategic use of technology for inclusive development

(Przebilovicz & Cunha, 2024)	Smart urban governance modes evolve through sociotechnical interactions	Dynamic governance approach explains citizen-government relations	Longitudinal qualitative case studies	Identifies emerging governance modes in smart cities	Proposes dynamic frameworks for sustainable digital governance
(Zaoui & al., 2019)	Personalized e-government framework improves service interoperability	Tailored services enhance citizen access and satisfaction	Framework combining interoperability and personalization platforms	Demonstrates improved service integration in Morocco	Recommends best practices for successful e-government deployment
(Attar & Mazouz, 2021)	Agile methods support responsive public sector information systems	Agile development enhances government information system flexibility	Exploration of agile practices in Moroccan e-government projects	Shows improved cooperation and citizen-focused services	Suggests agile transformation for public sector digital systems
(Kettani & al., 2013)	E-government systems improve governance quality and citizen access	Pilot project links e-government outcomes to good governance	Methodology emphasizes continuous assessment and impact analysis	Positive effects on governance and citizen service access	Encourages evidence-based dissemination of e-government practices

Source: Authors

The reviewed corpus reveals a diverse but convergent body of evidence addressing the five main analytical dimensions: **digital access impact, participation transition, theoretical frameworks, program effectiveness, and policy recommendations.**

Digital Access Impact.

Approximately thirty studies demonstrate that improved digital connectivity has significantly enhanced citizens' access to public services and governance information, thereby strengthening transparency and administrative efficiency (Idaomar & al., 2024; Chatit & Mohamed, 2023; Kettani & Moulin, 2014). Twelve studies further highlight the crucial role of social media and emerging technologies in expanding digital inclusion and enabling new forms of political and civic engagement (Ebrahimi & al., 2022; Mountasser & al., n.d.; Elmahfoudi & al., 2014). However, several contributions identify persistent challenges such as infrastructural inequalities and financial exclusion, which limit equitable access to digital services (Zinaoui & El Khettab, 2022; Perez-Morote & al., 2022). A few studies also stress the dual nature of digital access, which can empower citizens but simultaneously enable state control or exclusion (Zaid, 2016).

Participation Transition.

Twenty-five studies document a clear shift from passive digital service consumption toward more active citizen participation through co-creation, digital activism, and non-electoral engagement (Esselimani & al., 2021; Chalfaouat, 2020; Araby, 2024). Ten others demonstrate how social media catalyzes participatory governance at both local and national levels (Mountasser & al., n.d.; Amsidder & al., 2012; Abdelhak & Rhoulami, 2023). Nonetheless, institutional resistance and limited power-sharing continue to restrict the depth of participation (Ben-Larbi, 2024; Mariani & al., 2024; Blanc, 2020). Behavioral models consistently show that *facilitating conditions and perceived usefulness* remain key predictors of citizens' willingness to engage actively (Fadwa & Ez-Zohra, 2019; Satry & Belkadi, 2020).

Theoretical Frameworks.

Around twenty studies employ or propose conceptual frameworks connecting digital engagement to governance outcomes, including UTAUT, the DeLone & McLean model, and socio-technical approaches (Fadwa & Ez-Zohra, 2019; Haruna & al., 2024; Viana, 2025). Fifteen others propose integrative frameworks combining technological, social, and institutional variables to explain e-participation readiness and empowerment (Lee-Geiller, 2024; Gardenier & al., 2024; Sundberg & Holmström, 2023). Several papers develop process-based theories for co-creation and digital empowerment (Khan & Krishnan, 2021; Sharma & al., 2022), while others highlight the absence of unified models and call for more dynamic, multidisciplinary perspectives (Benlahcene & al., 2024; Bolívar & al., 2024).

Program Effectiveness.

Eighteen studies evaluate Moroccan digital initiatives, noting measurable improvements in service quality, transparency, and citizen satisfaction—although participatory democracy outcomes remain uneven (Chatit & Mohamed, 2023; Kettani & Moulin, 2014; Lakir & Soukaina, 2023). Case studies such as *eFez* and the *CNSS digitalization program* report tangible gains in efficiency and user experience (Zinaoui & El Khettab, 2022). Nonetheless, cultural resistance, organizational fragmentation, and limited coordination continue to constrain program effectiveness (Ech-Chbani, 2023; Attar & Mazouz, 2021). Comparative research suggests Morocco could benefit from adaptive lessons drawn from similar developing contexts (Asmawa & al., 2024; Kettani & al., 2013).

Policy Recommendations.

Across the literature, twenty-two studies recommend prioritizing inclusive policies to bridge digital divides, enhance digital literacy, and promote citizen-centric design of public services (Idaomar & al., 2024); Aayale & Seffar, 2021; Syahrudin & al., 2023). Scholars emphasize the

importance of integrated governance frameworks, civic-space protections, and institutional reforms to sustain active participation (OECD, 2024; Sundberg & Holmström, 2023). Common proposals include fostering agile management, co-creation processes, and trust-building measures (Nekhass & al., 2023; Khan & Krishnan, 2021; Townley & Koop, 2024), along with continuous monitoring and evidence-based policymaking to maximize impact (Kettani & al., 2013; Haruna & al., 2024).

Together, these patterns illustrate the steady evolution of Morocco’s digital governance landscape—marked by progress in infrastructure and engagement, y& hindered by persistent institutional, social, and inclusion challenges. These findings form the empirical foundation for the **Critical Analysis and Synthesis** presented in the following section.

4.2. Critical Analysis and Synthesis

The literature on digital engagement and online citizen participation in Morocco reveals a growing body of research that examines the transformative potential of digital access in reshaping citizen behaviors and governance processes. Empirical studies and conceptual models converge on the idea that digital platforms contribute to a shift from passive consumption of public services toward more active and participatory forms of civic engagement, notably through enhanced transparency, accountability, and inclusivity. However, several limitations constrain the overall coherence and generalizability of the findings, including fragmented theoretical perspectives, methodological weaknesses, persistent digital divides, and institutional constraints. This synthesis highlights the need for more integrative socio-technical approaches that account for Morocco’s institutional and socio-economic specificities while offering actionable insights for effective and sustainable digital governance.

Table 2 – Strengths and Weaknesses Across Key Analytical Dimensions

Aspect	Strengths	Weaknesses
Theoretical Frameworks Linking Digital Access and Citizen Engagement	Several studies propose conceptual models that effectively link digital access to citizen engagement and participatory behavior transformation, emphasizing empowerment, co-creation, and technological citizenship (Sharma & al., 2022; Khan & Krishnan, 2021; Gardenier & al., 2024). These frameworks help clarify mechanisms driving the shift from passive to active roles and form a foundation for further empirical testing.	The literature remains fragmented and under-theorized, especially regarding psychological and social dimensions of engagement (Benlhcene & al., 2024). Many models focus disproportionately on technology or politics, overlooking social, cultural, and institutional factors shaping engagement in Morocco.
Empirical Evidence on Moroccan Digital Governance Initiatives	Empirical studies show significant progress in Morocco’s digital services, including projects like eFez and digitalization accelerated during COVID-19 (Kettani & Moulin, 2014; Zinaoui & El Khettab, 2022; Aayale & Seffar, 2021). Improvements are	Many studies rely on limited sample sizes or cross-sectional methods, reducing generalizability (Ebrahimi & al., 2022; Satry & Belkadi, 2020). Urban and digitally literate

	noted in service delivery, transparency, and satisfaction.	populations are over-represented, marginalizing rural and low-income groups.
Methodological Approaches and Data Quality	Diverse methodologies—quantitative models, qualitative interviews, and meta-synthesis—offer a multifaceted understanding of digital engagement (Ebrahimi & al., 2022; Mountasser & al., n.d.; Khan & Krishnan, 2021). Mixed methods capture both statistical trends and lived experiences.	Heavy reliance on self-reported data, sampling bias, and the absence of longitudinal studies limit causal inference and understanding of long-term behavioral change (Esselimani & al., 2021; Satry & Belkadi, 2020).
Digital Divide and Inclusion Challenges	Many studies assess infrastructural, socio-economic, and educational inequalities, recognizing digital literacy as a critical enabler (Zinaoui & El Khettab, 2022; Elhazziti & al., 2023; Perez-Morote & al., 2022).	Few studies evaluate tailored interventions for marginalized groups such as rural residents, women, or low-income populations (Elhazziti & al., 2023; Syahrudin & al., 2023). Digital divides remain a major obstacle to inclusive governance.
Impact of Social Media and Digital Platforms on Citizen Behavior	Social media is shown to mobilize non-electoral participation, increase political awareness, and encourage digital activism (Ebrahimi & al., 2022; Mountasser & al., n.d.; Abdelhak & Rhoulami, 2023). Digital platforms help transform citizens into active contributors.	Challenges include rising political distrust, misinformation, and weak institutional responsiveness (Ebrahimi & al., 2022; Zaid, 2016), limiting the translation of online engagement into governance outcomes.
Policy Recommendations and Governance Implications	The literature offers strong recommendations for integrated digital strategies, interoperability, citizen-centric service design, and capacity building (Araby, 2024; OCDE, 2024; Zaoui & al., 2019). These align with Morocco's governance reforms.	Recommendations often lack actionable implementation details and overlook institutional resistance, coordination problems, and socio-political constraints (Ech-Chbani, 2023; OCDE, 2023).
Conceptualization of Citizen Roles and Participation Stages	Several studies propose detailed participation stages, from passive users to digitally empowered citizens (Araby, 2024; Sundberg & Holmström, 2023), offering clarity for designing engagement strategies.	These models lack empirical validation in Morocco and neglect the dynamic, evolving nature of citizen-state interactions (Blanc, 2020; Sundberg & Holmström, 2023).

Source: Authors

4.3. Thematic Review of Literature

The body of literature examining digital engagement and online citizen participation in Morocco reveals a set of interconnected thematic clusters that collectively illustrate the evolving landscape of digital governance in the country. These themes converge around the central argument that digital access acts as both an enabler and a transformer of citizen–state interactions, progressively shifting citizens from passive service recipients toward more participatory and empowered roles within governance processes. While Morocco's trajectory aligns with broader trends observed in developing and emerging countries, the literature highlights the country's unique contextual

characteristics related to institutional readiness, socio-economic conditions, and ongoing governance reforms.

A dominant theme emerging from 26 of the reviewed papers centers on Digital Transformation and Modernization of Public Administration. These studies emphasize Morocco's sustained efforts to digitize public services, modernize administrative procedures, and enhance transparency. Research highlights significant improvements in online service delivery and organizational efficiency, while simultaneously pointing to persistent challenges such as infrastructural disparities, digital divides, and limited institutional capacities for sustained digital transformation (*Chatit & Mohamed, 2023; Zinaoui & El Khettab, 2022; Ouajdouni & al., 2020; Nekhass & al., 2023; OECD, 2023; Aayale & Seffar, 2021*).

A closely related theme concerns Citizen Engagement and Participatory Democracy through Digital Platforms, present in 24 papers. This body of work documents the transition from passive administrative usage to forms of active participation facilitated by digital tools. Studies examine digital vigilantism, co-creation of public services, non-electoral political mobilization, and grassroots activism. These contributions highlight how trust, empowerment, and digital interactions with governance actors reshape citizen behaviors (*Esselimani & al., 2021; Ebrahimi & al., 2022; Mountasser & al., n.d.; Chalfaouat, 2020; Araby, 2024; Khan & Krishnan, 2021*).

A third theme, appearing in 22 studies, addresses Challenges of Digital Access and Inclusion. Research points to structural barriers that hinder equitable digital participation, including socio-economic inequalities, digital literacy gaps, infrastructural limitations, and financial inclusion constraints. These disparities affect adoption rates and reinforce the need for targeted strategies to bridge the digital divide across regions and demographic groups (*Aayale & Seffar, 2021; Satry & Belkadi, 2020; Perez-Morote & al., 2022; Townley & Koop, 2024; Syahrudin & al., 2023*).

Another major thematic cluster involves Theoretical Frameworks Linking Digital Access, Engagement, and Governance, identified in 18 papers. The literature synthesizes conceptual approaches integrating technological infrastructure, institutional readiness, governance quality, and social diversity. Theoretical contributions draw on models such as UTAUT, e-participation readiness frameworks, empowerment theories, and sociotechnical governance paradigms to explain how digital access shapes citizen engagement (*Haruna & al., 2024; Lee-Geiller, 2024; Sharma & al., 2022; Gardenier & al., 2024; Sundberg & Holmström, 2023*).

A fifth theme, represented in 17 papers, focuses on Evaluation of Moroccan E-Government Initiatives and Benchmarking. These studies examine flagship projects such as eFez and other national portals, assessing their effects on service effectiveness, transparency, and user satisfaction. Comparative analyses with other developing countries highlight Morocco's progress while identifying areas needing improvement, particularly regarding interoperability, user-centric

design, and coordinated implementation (*Misuraca, 2006; Kettani & Moulin, 2014; Lakir & Soukaina, 2023; Zaoui & al., 2019; Kettani & al., 2013*).

A related thematic area concerns The Role of Social Media and Digital Activism in Civic and Political Participation, appearing in 14 of the reviewed papers. Research underscores how platforms such as Facebook, YouTube, and WhatsApp stimulate political mobilization, civic activism, and youth participation. However, studies also document the ambivalent effects of social media, including risks of misinformation, political distrust, and institutional non-responsiveness (*Ebrahimi & al., 2022; Zaid, 2016; Amsidder & al., 2012; Abdelhak & Rhouлами, 2023*).

Another important theme involves Organizational Change and Agile Governance in the Digital Era (11 papers). This line of research examines how Moroccan public administrations respond internally to digital transformation through agile practices, cultural adaptation, and resistance management. These organizational changes are essential for sustaining digital governance innovation (*Nekhass & al., 2023; OECD, 2024; Viana, 2025; Attar & Mazouz, 2021*).

The literature also addresses Policy and Regulatory Frameworks Supporting Open and Digital Governance, present in 10 papers. These studies analyze the legal and institutional frameworks underpinning Morocco's governance reforms, including access-to-information laws, civic space protections, and open government strategies. Key recommendations concern reducing fragmentation and enhancing institutional coherence to reinforce citizen trust (*OECD, 2024; Ben-Larbi, 2024*).

A more emergent theme, represented in 7 studies, focuses on Technological Innovations and Smart Governance. These works highlight the integration of AI tools, smart city technologies, chatbots, and big data systems into Moroccan public administration, emphasizing their utility for personalization, territorial intelligence, and improved resource management (*Gharbaoui & al., 2024; Amrani & al., 2024; Przybilowicz & Cunha, 2024*).

Finally, the theme of Digital Literacy and Capacity Building, appearing in 6 papers, underscores the need to strengthen citizen and institutional digital skills. Studies highlight digital literacy as a prerequisite for effective participation, essential for overcoming engagement barriers and fostering sustained involvement in digital governance activities (*Asmawa & al., 2024; Syahrudin & al., 2023*).

Taken together, these thematic clusters reveal a digital governance landscape characterized by significant progress, persistent structural constraints, and the need for integrated socio-technical and institutional reforms. The literature converges on the idea that digital transformation in Morocco holds substantial potential to enhance participatory governance, provided that inclusion, trust, and institutional coordination challenges are systematically addressed.

4.4. Chronological Review of Literature

Research on digital engagement and citizen participation in Morocco's public digital services has evolved significantly over the past two decades. Early studies concentrated on establishing foundational e-government frameworks and assessing technological infrastructure. Over time, the focus shifted towards understanding citizen behaviors, the transition from passive use to active participation, and governance implications. Recent literature further emphasizes theoretical frameworks, digital inclusion challenges, and policy recommendations, reflecting Morocco's evolving digital governance landscape within both global and developmental contexts.

As the field has matured over time, each period has introduced new questions, actors, and technological conditions, creating a progressive trajectory from basic digitization toward more sophisticated models of participatory governance. These chronological phases complement each other, showing how early infrastructure enabled later behavioral research, and how contemporary studies build on both to propose advanced theoretical and policy frameworks. This progression illustrates a cumulative and interconnected evolution rather than isolated research cycles.

2006–2014 — Foundational E-Government and ICT Initiatives

Early research focused on launching and assessing e-government projects and the role of ICT in local governance, including pilot projects aimed at improving service delivery and governance quality. Emphasis was placed on establishing frameworks, interoperability, and the potential of digital tools to support transparency and citizen access. These works laid the groundwork for later participatory and behavioral studies by highlighting the technical and organizational challenges of digital transformation in public administration.

2012–2016 — Social Media and Digital Mobilization

Studies explored the use of social media and digital platforms as tools for citizen mobilization and political engagement, particularly in post-Arab Spring Morocco. Research investigated how digital communication facilitated activism, influenced perceptions of governance, and contributed to new forms of non-electoral political participation. This period recognized the emerging impact of online technologies on citizen-government interaction beyond traditional service delivery.

2019–2021 — Citizen Behavior and Digital Service Adoption

Research during this period examined determinants influencing citizens' use of electronic administration services, including models explaining behavioral intent and adoption barriers. There was a growing focus on citizen relationship management, social media effects on participation, co-creation processes, and the impact of digital transformation on public service efficiency. The role of digital platforms in fostering trust, transparency, and active citizen involvement became clearer, supported by empirical and qualitative studies.

2022–2023 — Digital Transformation Impact and Governance Challenges

Recent investigations analyze the structural, organizational, and policy dimensions of Morocco’s digital transformation in public administration. Topics include pandemic-driven acceleration of digital services, personalized e-government frameworks, digital communication in local governance, and the challenges of organizational change and resistance. Comparative insights reveal persistent issues such as the digital divide, inclusivity, and the need for integrated governance approaches alongside technological upgrades.

2024–2025 — Theoretical Frameworks and Policy Recommendations

The latest research emphasizes the development of conceptual and integrative frameworks linking digital access, citizen engagement, and governance transformation. Studies focus on digital citizenship, empowerment, co-production, and collaborative governance in the digital era, with recommendations for enhancing inclusivity and effective participation. Cross-country comparisons and systematic reviews inform policy strategies aimed at overcoming barriers and leveraging digital tools for democratic deepening in Morocco and similar developing contexts.

4.5. Agreement and Divergence Across Studies

The reviewed literature reveals broad agreement on the positive role of digital access in fostering citizen engagement and transforming governance behaviors in Morocco. Most studies converge on the idea that digital platforms enhance transparency, improve service efficiency, and enable a transition from passive service consumption to more participatory forms of engagement. However, divergence emerges regarding the extent, inclusivity, and sustainability of these transformations, with some works emphasizing structural barriers, digital divides, institutional resistance, and socio-political constraints. Theoretical approaches also vary, ranging from technology-driven and organizational models to socio-political and empowerment-oriented frameworks. These convergences and divergences reflect differences in methodological design, research contexts, and disciplinary lenses across the literature.

The table below synthesizes areas of agreement, divergence, and underlying explanations across four major comparison criteria.

Table 3. Agreement and Divergence Across Studies

Comparison Criterion	Studies in Agreement	Studies in Divergence	Potential Explanations
Digital Impact Access	Most studies agree that improved digital infrastructure and access increase citizen engagement and enable more effective governance interactions, as seen in Moroccan e-government	Some studies highlight ongoing challenges such as the digital divide, financial exclusion (e.g., need for online banking), and uneven access that limit the inclusivity and full impact of digital access on	Differences stem from varying focuses on infrastructure versus socio-economic barriers, and the scope of measurement (technical access vs. behavioral

	<p>strategies and digitalization efforts enhancing service delivery and (Idaomar & al., 2024) (Chatit & Mohamed, 2023) (Aayale & Seffar, 2021) (Kumar, 2023). Social media also plays a significant role in mobilizing citizens and increasing non-electoral participation (Ebrahimi & al., 2022) (Mountasser & al., n.d.) (Abdelhak & Rhouлами, 2023).</p>	<p>participation (Aayale & Seffar, 2021) (Perez-Morote & al., 2022) (Syahrudin & al., 2023). Others note that despite access, social distrust or political distrust may increase due to negative perceptions shaped by digital platforms (Ebrahimi & al., 2022).</p>	<p>outcomes). Some studies emphasize macro-level infrastructure improvements, while others focus on micro-level social or economic constraints influencing effective use.</p>
<p>Participation Transition</p>	<p>There is consensus that digital tools have catalyzed a shift from passive consumption of public services to more active roles including co-production, citizen empowerment, and digital vigilantism in Morocco (Chalfaouat, 2020) (Aayale & Seffar, 2021) (Khan & Krishnan, 2021). The evolution towards smart or transformative citizen roles is acknowledged in conceptual analyses (Araby, 2024) (Sharma & al., 2022). Digital platforms facilitate participatory governance and deliberation (Esselimani & al., 2021) (Mariani & al., 2024)</p>	<p>However, evidence of deep and sustained participatory democracy via digital means is mixed. Some studies point to indirect or government-led participation rather than genuine citizen empowerment (Esselimani & al., 2021), while others argue that despite platform availability, meaningful engagement remains limited due to institutional reluctance or lack of agenda-setting power for citizens (Blanc, 2020).</p>	<p>Divergence arises due to differences in study designs (quantitative vs qualitative), contexts (municipal vs national), and timeframes. Studies focused on early-stage digital initiatives may report limited participation, whereas those examining emerging trends or specific cases show more active citizen roles. Institutional and cultural factors also play a role.</p>
<p>Theoretical Frameworks</p>	<p>Multiple studies identify the need for integrative frameworks linking digital access, citizen engagement, and governance transformation, involving technological, social, and institutional dimensions (Haruna & al., 2024) (Lee-Geiller, 2024) (Viana, 2025) (Sharma & al., 2022) (Gardenier & al., 2024). Models such as UTAUT and DeLone & McLean are used to explain adoption and participation behaviors (Satry & Belkadi,</p>	<p>There is divergence in the emphasis of theoretical approaches: some focus predominantly on technological and organizational factors (Fadwa & Ez-Zohra, 2019) (Ouajdouni & al., 2020), others integrate socio-political and citizen empowerment perspectives (Gardenier & al., 2024) (Sharma & al., 2022), while a few adopt holistic sustainability or SDG-oriented frameworks (Tariq & al.,</p>	<p>Variations reflect disciplinary backgrounds (information systems, public administration, political science), research objectives (measurement vs conceptualization), and geographical or cultural scope. Emerging fields like technological citizenship introduce new lenses compared to traditional e-government models, causing diversity in theoretical focus.</p>

	2020) (Haruna & al., 2024). Empowerment and collaborative governance theories are emphasized in several works (Sharma & al., 2022) (Viana, 2025).	2024). The role of cultural diversity and governance quality also differs in explanatory power (Lee-Geiller, 2024).	
Program Effectiveness	Moroccan digital public service initiatives, such as the eFez project and strategies by DGI and ANCFCC, have led to measurable improvements in efficiency, citizen satisfaction, and governance transparency (Kettani & Moulin, 2014) (Aayale & Seffar, 2021) (Kettani & al., 2013). The pandemic accelerated digital adoption and revealed successful cases of digital service continuity (Zinaoui & El Khettab, 2022) (Nekhass & al., 2023) (Lakir & Soukaina, 2023). Initiatives for interoperability and personalization are underway (Zaoui & al., 2019).	Despite progress, several studies report gaps in deep social inclusion, sustained citizen participation, and coordination across administrations (Ech-Chbani, 2023) (Elhazziti, M and al., 2023) (OECD, 2024) Fragmentation, resistance to change, and limited integration hinder full realization of participatory governance benefits (OECD 2023) (Elhazziti, M and al., 2023) (Attar & Mazouz, 2021). Financial and digital literacy barriers also limit program reach (Aayale & Seffar, 2021) (Syahrudin & al., 2023).	Differences stem from program maturity, administrative complexity, and resource availability. Pilot projects show promising results, but scaling presents challenges. Variations in evaluation metrics, focus on quantitative efficiency vs qualitative participation, and timing relative to COVID-19 influences reported effectiveness.
Policy Recommendations	A shared recommendation is the need to deepen digital transformation beyond portal services, focusing on inclusion, capacity building, interoperability, and employee engagement (Aayale & Seffar, 2021) (Elhazziti, M and al., 2023) (Viana, 2025) (Townley & Koop, 2024). Enhancing digital literacy, reducing the digital divide, and fostering trust are frequently advised (Syahrudin & al., 2023) (Gharbaoui & al., 2024) (Gardenier & al., 2024). Multi-stakeholder collaboration and	Some studies emphasize the importance of addressing socio-political barriers such as governmental reluctance to share power and citizen distrust that technological solutions alone cannot resolve (Esselimani & al., 2021) (Blanc, 2020). Others suggest tailored approaches to local contexts and caution against over- reliance on digital tools without institutional reforms (Ben-Larbi, 2024) (Attar & Mazouz, 2021).	Divergence arises due to differing views on the balance between technological fixes and governance reforms. Contextual factors, such as political culture, administrative capacity, and citizen trust, influence the feasibility and focus of policy recommendations. Studies with broader comparative perspectives tend to stress systemic reforms more.

supportive legal frameworks are highlighted (OECD, 2024) (OECD, 2024) (Asmawa & al., 2024).		
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Source: Authors

5. Theoretical and Practical Implications

5.1. Theoretical Implications

The synthesized findings reinforce the conceptualization of digital engagement as a transformative mechanism shifting citizens from passive consumers of public services to active participants in governance, supporting theories of New Public Governance and participatory democracy. This is evidenced by frameworks linking digital access, citizen engagement, and behavioral transformation, which highlight the role of digital infrastructure and social factors in enabling active citizenship (Araby, 2024; Lee-Geiller, 2024; Sharma & al., 2022) These insights are also aligned with recent doctoral findings from Jeddou (2024), whose empirical analysis of Moroccan digital public services using UTAUT and GAM confirms the decisive influence of technological readiness, perceived usefulness, and facilitating conditions on citizens' intention to adopt and effectively use digital services... The literature challenges technology-deterministic views by emphasizing the interplay of technological, social, and institutional factors in shaping e-participation outcomes. Studies show that governance dispositions, trust, and demographic diversity are critical alongside technological readiness, thus advocating for integrative sociotechnical frameworks (Lee-Geiller, 2024; Viana, 2025; Perez-Morote & al., 2022).

Empirical evidence from Morocco and comparable developing countries underscores the importance of contextualizing digital governance theories within socio-economic realities, such as digital divides and financial inclusion barriers, which influence the extent and quality of citizen participation (Aayale & Seffar, 2021; Perez-Morote & al., 2022; Syahrudin & al., 2023). Theoretical models of citizen engagement increasingly incorporate co-creation and collaborative governance perspectives, recognizing citizens as co-producers of public services rather than mere users. This shift is supported by meta-synthesis approaches that elucidate government roles in facilitating co-creation processes (Khan & Krishnan, 2021; Viana, 2025; Sundberg & Holmström, 2023).

The findings also contribute to the digital governance literature by proposing a nuanced understanding of participatory behavior transformation, where digital tools not only enable access

but also foster empowerment, transparency, and accountability, aligning with theories of digital citizen empowerment and technological citizenship (Sharma & al., 2022; Gardenier & al., 2024; Kumar, 2023). Overall, the review advances existing scholarship by integrating fragmented theoretical strands into a coherent conceptual lens specifically adapted to the Moroccan and developing-country context. These insights also delineate future research avenues on trust, co-creation dynamics, and socio-technical determinants of engagement.

5.2. Practical Implications

Policymakers in Morocco should prioritize comprehensive digital transformation strategies that extend beyond service digitization to include capacity building, organizational change, and citizen-centric design to foster meaningful engagement and co-creation of public services (Aayale & Seffar, 2021; Khan & Krishnan, 2021; Attar & Mazouz, 2021). Addressing the digital divide remains critical; efforts to enhance digital and financial inclusion—such as expanding mobile payment solutions and reducing barriers to online banking—are essential to ensure equitable access to digital public services and active participation (Aayale & Seffar, 2021; Perez-Morote & al., 2022; Syahrudin & al., 2023).

The integration of trust-building measures, transparency initiatives, and responsive feedback mechanisms within digital platforms can enhance citizen satisfaction and participation, as demonstrated by Moroccan e-government projects and social media engagement studies (Esselmani & al., 2021; Ebrahimi & al., 2022; Gharbaoui & al., 2024). Governments should adopt multi-channel engagement approaches combining digital and traditional methods to overcome limitations of digital-only participation and to accommodate diverse citizen needs and capabilities, thereby increasing inclusiveness (Townley & Koop, 2024; Benlahcene & al., 2024). Strategic alignment of digital governance initiatives with broader governance reforms, including legal and institutional frameworks supporting open government and civic space, is necessary to sustain participatory democracy and empower citizens effectively (OECD, 2024; Ben-Larbi, 2024). Continuous monitoring and evaluation using performance indicators related to citizen satisfaction, service quality, and participation levels are recommended to guide iterative improvements and to demonstrate the tangible benefits of digital engagement for governance outcomes (Aayale & Seffar, 2021; Kettani & al., 2013).

These practical implications highlight targeted actions for ministries, local administrations, regulatory agencies, and digital-transformation units, ensuring that digital governance strategies translate into sustainable and inclusive engagement practices. This section also provides the foundation for the limitations and future research directions discussed in the following part.

6. Limitations of the Literature

The existing literature on digital engagement and online citizen participation in Morocco presents several recurring limitations that constrain the explanatory power, generalizability, and depth of current findings. A first limitation concerns **geographic bias**, as most studies focus exclusively on the Moroccan context without systematically comparing findings to other emerging or developing countries. This geographic concentration restricts external validity and limits cross-contextual generalizations (Misuraca, 2006; Idaomar & al., 2024; Esselimani & al., 2021; Ebrahimi & al., 2022; Aayale & Seffar, 2021). While Morocco offers a rich case of digital transformation, broader comparative research would help contextualize observed behavioral patterns.

A second limitation relates to **methodological constraints**, since several studies rely on qualitative, exploratory, or small-sample designs that hinder the robustness and replicability of findings. These methodological characteristics reduce confidence in generalized conclusions regarding citizen engagement dynamics and the determinants of digital participation (Mountasser & al., n.d.; Satry & Belkadi, 2020; Khan & Krishnan, 2021). Moreover, the continued reliance on self-reported measures increases potential biases and limits the capacity to evaluate actual behavioral transformations in digital governance. The literature also suffers from a significant **lack of longitudinal data**, which limits understanding of how citizen behaviors evolve over time and whether early digital engagement leads to sustained participatory practices. Only a small number of studies acknowledge or attempt multi-year evaluations, creating a gap in capturing the temporal dynamics of participation (Idaomar & al., 2024; Nekhass & al., 2023; Aayale & Seffar, 2021). The absence of longitudinal evidence restricts the capacity to assess the durability and institutionalization of participatory transformations.

Another limitation concerns **underexplored social and cultural factors**. Many contributions prioritize technological and political dimensions while overlooking psychological, social, and cultural determinants that strongly shape participation, trust, and engagement behaviors. As a result, several critical socio-cultural mechanisms influencing digital engagement remain insufficiently theorized (Benlahcene & al., 2024; Lee-Geiller, 2024; Blanc, 2020). This gap affects the holistic understanding of what drives or constrains citizen involvement.

The issue of **digital divide and inclusion** is well-recognized but insufficiently addressed. While several works mention infrastructural inequality, digital literacy gaps, and financial inclusion barriers, few empirically investigate how these constraints limit actual engagement or generate new exclusions (Zinaoui & El Khettab, 2022; Aayale & Seffar, 2021; Pérez-Morote & al., 2022). The limited attention to marginalized rural populations, women, or low-income groups weakens claims about the inclusivity of digital governance.

At the conceptual level, the literature reveals a **lack of theoretical integration**, as studies mobilize fragmented frameworks such as UTAUT, empowerment theory, information systems models, or participatory governance approaches, with limited efforts to develop unified models bridging digital access, engagement, and governance transformation (Haruna & al., 2024; Araby, 2024; Sharma & al., 2022). This fragmentation hampers cumulative knowledge building and limits the construction of comprehensive explanatory models.

Another observed limitation is the dominance of technological perspectives over governance dimensions. Many studies emphasize infrastructure, service digitization, and ICT tools while giving insufficient attention to institutional culture, administrative resistance, legal frameworks, and governance dynamics that significantly influence citizen engagement and participation sustainability (Elhazziti & al., 2023; OECD, 2024; Viana, 2025). This imbalance obscures the systemic factors constraining participatory governance in Morocco.

Furthermore, despite frequent claims of positive effects, there is a shortage of rigorous empirical evidence quantitatively measuring the impact of digital initiatives on governance outcomes. Several contributions document improvements in service quality and transparency, yet very few assess measurable effects on trust, accountability, or decision-making influence (Kettani & Moulin, 2014; Kettani & al., 2013; Blanc, 2020). This limits the robustness of policy guidance derived from existing research.

These limitations collectively illustrate both the progress and the gaps in the existing literature and provide a foundation for identifying precise research avenues and theoretical developments, which are explored in the next section on **Gaps and Future Research Directions**.

7. Gaps and Future Research Directions

The analysis of the existing literature highlights several persistent research gaps that limit the development of a comprehensive understanding of digital engagement and citizen participation in Morocco. These gaps span theoretical, methodological, institutional, and socio-technical dimensions, offering clear directions for future scholarly inquiry. The following synthesis preserves the content of the original analytical matrix while enhancing clarity, scientific coherence, and alignment with international academic standards.

A first gap concerns the **fragmentation of theoretical frameworks** explaining participation transition. Existing models insufficiently integrate psychological, social, and institutional factors influencing the shift from passive to active citizen roles in Morocco's digital governance. Future research should therefore develop and empirically test integrative, multidisciplinary models that incorporate socio-cultural, psychological, and institutional dynamics specific to the Moroccan context. This need is justified by the dominance of technology- or politics-centered approaches that overlook deeper social and cultural influences (Benlahcene et al., 2024; Gardenier et al., 2024;

Sundberg & Holmström, 2023). Current models focus heavily on technology or political factors, neglecting complex social and cultural influences critical for understanding behavioral transformation (Benlahcene et al., 2024) (Gardenier et al., 2024) (Sundberg & Holmström, 2023). Recent integrative attempts, such as Jeddou (2024) combining UTAUT and GAM to model the adoption of digital public services, represent promising advances but remain limited to specific sectors, underscoring the need for broader theoretical integration across Morocco's digital governance ecosystem.

A second major gap lies in **the limited use of longitudinal empirical methods**. Most existing studies rely on cross-sectional designs, restricting the assessment of behavioral evolution and the sustainability of participatory transformations. Future research should conduct longitudinal mixed-method studies tracking citizen participation trajectories and digital engagement impacts across diverse Moroccan populations, especially outside major urban centers. Without longitudinal evidence, causality and long-term behavioral change remain unclear (Esselimani et al., 2021; Satry & Belkadi, 2020).

Third, despite widespread recognition, the **digital divide and inclusion of marginalized groups** remain insufficiently explored. Barriers such as rural infrastructure gaps, socio-economic inequalities, gender disparities, and digital illiteracy continue to hamper equitable participation. Future studies should design and evaluate tailored digital literacy programs and infrastructural interventions for marginalized groups, assessing their effects on participatory governance. This is necessary to achieve genuine inclusiveness in digital transformation (Zinaoui & El Khettab, 2022; Elhazziti et al., 2023; Syahrudin et al., 2023).

A fourth gap relates to **institutional reluctance and power asymmetry**, which continue to constrain meaningful citizen influence despite digital access. Future research should investigate institutional barriers through in-depth qualitative case studies and propose frameworks that enhance institutional responsiveness and power-sharing mechanisms. This is justified by findings showing that institutional inertia often restricts the translation of digital engagement into governance outcomes (Ben-Larbi, 2024; Mariani et al., 2024; Blanc, 2020).

A fifth gap concerns the **underexplored role of trust in emerging technologies**, particularly AI-chatbots and social media platforms used in public administration. Further studies should explore trust-building determinants and examine their moderating effects on adoption and satisfaction within AI-enabled public services. Trust plays a central role in shaping engagement quality (Gharbaoui et al., 2024; Ebrahimi et al., 2022).

A sixth concern is the **lack of context-specific validation of participation stages**. Although conceptual models categorize citizen engagement stages, few have been empirically validated within Morocco's socio-political and digital realities. Future research should test and refine these

models through Moroccan case studies, incorporating cultural and governance nuances (Araby, 2024; Sundberg & Holmström, 2023).

Another research gap relates to **organizational and cultural barriers within public institutions**, which impede effective digital governance. Future research should conduct in-depth organizational analyses to identify cultural resistance patterns and propose change management strategies that foster a digital culture and agile governance (Ech-Chbani, 2023; Nekhass et al., 2023; Elhazziti et al., 2023).

The field also lacks **comprehensive policy implementation frameworks**. Existing policy recommendations often remain general and do not provide actionable, context-sensitive roadmaps addressing coordination challenges, legal constraints, and civic space protections. Upcoming research should develop integrated implementation frameworks with practical mechanisms for inter-institutional coordination, legal reforms, and stakeholder involvement (OECD, 2024; Sundberg & Holmström, 2023)..

Additionally, **digital activism's impact on governance outcomes** remains insufficiently studied. While digital vigilantism and political mobilization have been documented, their effects on co-production of governance and policy responsiveness remain underexamined. Future research should assess digital activism as an informal but influential participatory channel (Chalifaouat, 2020; Amsidder et al., 2012).

Finally, evaluations of Moroccan digital governance programs—such as eFez or digital transformations in sectoral administrations—insufficiently assess outcomes related to participatory democracy and empowerment. Research should implement comprehensive impact assessments emphasizing participatory metrics, empowerment indicators, and long-term effects (Kettani & Moulin, 2014; Lakir & Soukaina, 2023; Kettani et al., 2013).

Overall, addressing these research gaps will significantly enhance theoretical development, empirical robustness, and policy effectiveness in the field of digital governance in Morocco, while aligning future research with international standards and the evolving digital transformation landscape.

8. Conclusion of the Systematic Review

The systematic review demonstrates that digital engagement and online citizen participation in Morocco constitute a dynamic and multifaceted field shaped by technological progress, governance reforms, and evolving citizen expectations. Across the literature, digital access emerges as a foundational driver of behavioral transformation, enabling citizens to interact more effectively with public institutions, access governance information, and benefit from more transparent and responsive administrative processes. This increased connectivity supports the gradual shift from passive service consumption to active participation in governance, although the transition remains uneven and constrained by persistent infrastructural, socio-economic, and territorial disparities, particularly affecting rural and marginalized populations.

Digital platforms—most notably social media—play a pivotal role in expanding opportunities for civic and political engagement beyond formal electoral mechanisms. They facilitate new forms of digital activism, non-electoral participation, and co-production of public services, illustrating a significant evolution in citizen roles toward more empowered governance contributors. Nevertheless, this transition is tempered by challenges such as political distrust, misinformation, the volatility of online mobilization, and the limited willingness of institutions to share decision-making power. Behavioral intention models consistently highlight the importance of facilitating conditions, perceived usefulness, and trust as essential enablers of meaningful digital engagement. The theoretical contributions within the literature point to a growing recognition of the need for comprehensive frameworks that integrate technological, social, psychological, and institutional dimensions of participation. While established models such as UTAUT and sociotechnical approaches offer valuable explanatory foundations, the Moroccan context calls for more holistic, multidisciplinary frameworks that better reflect its cultural, governance, and developmental specificities. Many scholars emphasize the conceptual evolution from passive to “smart” empowered citizenship, although the empirical validation of these stages remains limited and represents an important avenue for future research.

Evaluations of Moroccan digital governance initiatives consistently indicate progress in service delivery, transparency, and citizen satisfaction, with successful projects demonstrating improvements in administrative efficiency and user experience. Yet significant obstacles—particularly institutional resistance, organizational culture, lack of interoperability, and uneven digital literacy—continue to limit the transformative potential of these initiatives. Comparative evidence from other developing contexts underscores the relevance for Morocco to institutionalize agile management practices, promote co-creation processes, and reinforce governance coordination mechanisms to enhance effectiveness.

Policy recommendations converge around the strategic need to reduce digital divides, strengthen digital literacy, and implement inclusive infrastructure development that supports equitable access to digital public services. Protecting civic space, enhancing institutional responsiveness, and embedding accountability mechanisms into digital transformation processes are identified as critical conditions for sustaining citizen trust. The literature further emphasizes the role of systematic impact assessment, integrated policy frameworks, and context-sensitive governance reforms to align digital innovation with social inclusion and democratic deepening.

Overall, the systematic review highlights that while Morocco has made tangible progress in digital governance, realizing the full democratic and participatory potential of digital engagement requires comprehensive, multidimensional strategies that bridge technological advancement with social equity and institutional transformation. These insights not only advance theoretical understanding but also provide actionable guidance for policymakers, public administrations, and researchers committed to enhancing participatory digital governance in Morocco and comparable developing contexts.

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