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Framework for Managers' Engagement Enthusiasm with Smart Technologies in the Platform Government

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Abstract

The present study was conducted with the aim of developing a framework for managers' engagement enthusiasm with smart technologies in the context of a platform government. This research is applied in nature, employs a qualitative data collection method, and utilizes a thematic analysis approach as its research execution method. Using the three-step thematic analysis method, the study offers a conceptual framework for understanding the enthusiasm of managerial engagement with smart technologies in the platform government. A total of 15 interviews were conducted, and through analysis and coding of related texts, the descriptive codes derived from the first phase were grouped into related categories. Based on the subject literature and theoretical sensitivity, a total of 231 open/descriptive codes, 159 basic themes, 22 organizing themes, and 8 overarching themes were identified. In the subsequent sections, the framework for managerial engagement enthusiasm with technology in the platform government was presented as a thematic network. The proposed framework in this study identifies the various dimensions that governments must consider in their activities and programs to realize and institutionalize a smart government. The research attempts to provide a comprehensive framework by identifying key dimensions that can serve as the basis for government planning and policymaking.

Keywords: Technology engagement, platform government, smart technologies.

1. Introduction

In the evolving landscape of governance and public administration, the emergence of platform government represents a paradigm shift in how governments interact with citizens, stakeholders, and technological ecosystems. The digital transformation of state structures is no longer a mere optimization of bureaucratic services but a fundamental redefinition of the governance model itself, one that is increasingly shaped by smart technologies, data-driven processes, and human-technology interactions. The idea of a platform government goes beyond traditional e-government by emphasizing interoperability, openness, inter-agency collaboration, and user-centered services, aligning public governance with the adaptive, responsive, and modular logic of digital platforms (Kim et al., 2022). This model has gained traction particularly in response to the limitations of conventional governance approaches and the opportunities created by the Fourth Industrial Revolution (ghohari, 2017).



Platform government as a conceptual and practical model operates at the intersection of digital innovation, institutional redesign, and participatory governance. It leverages the logic of platforms to enable scalable, integrated, and adaptive public services through multi-stakeholder engagement and dynamic data ecosystems (Fadaei et al., 2023). The transition toward this model is evident in both developed and developing countries, with initiatives aimed at integrating emerging technologies like artificial intelligence, blockchain, and big data into government operations to improve efficiency, responsiveness, and citizen-centricity (Gil-Garcia et al., 2014). Within this framework, public managers' interaction with smart technologies becomes central, not only as operational agents but also as change leaders navigating complexity, innovation, and digital ethics (Jung et al., 2025).

Understanding the psychological, organizational, and contextual dimensions of managerial engagement with smart technologies is crucial in the realization of platform government. Research has shown that personal traits, such as affinity for technology, and organizational structures influence the degree to which managers are willing and able to integrate digital tools in decision-making and service delivery (Franke et al., 2019). This is particularly important in platform governments, where the boundaries between public, private, and civic actors blur, and where digital infrastructure must support agility, trust, and sustainability (Scholl & Scholl, 2014). As such, managerial enthusiasm and digital literacy serve as critical enablers of smart governance and transformative leadership (Zarandi & Asadbak, 2023).

The theoretical foundations for this study rest on a multidimensional understanding of “smartness” in government. Gil-Garcia and colleagues have developed comprehensive frameworks that encompass technological, organizational, and social factors in defining smart government, stressing the interplay between innovation capacity, information integration, and collaborative governance structures (Gil-Garcia et al., 2015; Gil-Garcia et al., 2016). Their work highlights that smart government is not merely about technological implementation but involves rethinking institutional logic and managerial roles. Similarly, platform government requires not only digital tools but new forms of engagement, feedback loops, and a shift from vertical command-and-control systems to horizontal, networked arrangements (Gil-Garcia, 2012).

The emergence of these new governance models also reflects broader sociopolitical and economic trends. As public expectations evolve and the complexity of societal challenges increases, governments are forced to become more adaptive and participatory. The platform model provides a mechanism to orchestrate diverse resources and actors toward collective problem-solving, while maintaining responsiveness and accountability (HuaxiongJiang et al., 2022). This shift requires a reconfiguration of public institutions, policy processes, and decision-making frameworks to accommodate flexibility, collaboration, and innovation (Gil-Garcia & Aldama-Nalda, 2013).

At the core of this reconfiguration lies the concept of technological interaction and acceptance, especially among public managers. Drawing on models like the Technology Acceptance Model (TAM), recent extensions have incorporated psychological and behavioral variables, such as self-regulated learning and technology affinity, to better understand user adoption of digital systems (Barz et al., 2024). In organizational contexts, these individual-level factors interact with structural variables—such as leadership style, institutional culture, and governance mandates—to shape technology engagement outcomes (Chang & Cheung, 2001). The deployment of platform logic in government requires that these interactions be not only efficient but also reflexive, aligning technological capacities with ethical, political, and social imperatives.

One of the key barriers to effective engagement with smart technologies in the public sector is the persistence of bureaucratic inertia and institutional rigidity. Many legacy systems are ill-suited for the adaptive requirements of platform governance. Efforts toward integration, interoperability, and agile policy design often clash with outdated legal frameworks and hierarchical organizational cultures (Gil-Garcia & Luna-Reyes, 2006). Overcoming these constraints demands a dual focus: upgrading technical infrastructure and cultivating a culture of digital openness and managerial agility (Moghimi, 2015). Futures studies and scenario planning approaches, as emphasized in strategic urban and governance planning, can provide methodological tools to anticipate disruptions and design resilient institutional responses (Moghimi, 2015).

Furthermore, the operationalization of smart and platform government models must account for cross-contextual dynamics. Studies in comparative urban governance show that the adoption of smart technologies varies across cultural, regulatory, and institutional settings, suggesting that no one-size-fits-all model exists (HuaxiongJiang et al., 2022). Hence, context-sensitive



design, informed by local needs and participatory co-creation, is essential in fostering effective human-technology partnerships in government (Hoshino & Zhong, 2007). The integration of intelligent systems, such as AI-driven policy analytics and interactive citizen platforms, must be guided by principles of inclusivity, transparency, and co-governance (Gil-Garcia et al., 2015).

This study aims to contribute to this evolving discourse by developing a framework that conceptualizes and explains public managers' engagement enthusiasm with smart technologies within the architecture of platform government. By focusing on the cognitive, organizational, infrastructural, and interactional dimensions of this engagement, the study addresses a critical gap in both theory and practice.

2. Methods and Materials

The present study is of an applied and developmental nature in terms of its outcome, and employs a qualitative approach for data collection and analysis. The primary objective of this research is to describe and explain a framework for managers' engagement enthusiasm with smart technologies in the platform government. Based on the nature of data, research is typically categorized into quantitative, qualitative, and mixed-method types. In this study, given the purpose and nature of the research, a qualitative mixed-method approach was adopted, with an exploratory design. As outlined above, the research is applied in nature and was conducted using an interpretive approach and exploratory design. The qualitative phase utilized purposive sampling.

The research population in this phase included experts and specialists in the field of smart technologies and digital transformation—individuals possessing expertise and practical experience relevant to the research topic. This group was selected to participate in the qualitative phase and took part in the interview process. The sampling method for the qualitative section was purposive (snowball sampling). When the aim of the interviews is to explore and describe participants' beliefs and perceptions, a sample size between 7 and 25 interviews is considered acceptable depending on available time and resources. In this study, a total of 15 interviews were conducted, which was deemed sufficient to achieve theoretical saturation.

Data collection in this study was carried out using two primary methods:

- a) Library Research Method: This method was used to review theoretical foundations, literature, and prior studies. It also served to identify the initial dimensions and components in the qualitative phase of the study.
- b) Field Method: During the interviews, the researcher employed guiding questions to ensure accurate interpretation of participants' responses. The researcher also analyzed data concurrently with participant recruitment, refining incomplete data by incorporating information from new participants. Theoretical saturation was achieved when, after approximately 12 interviews, key themes and categories began to repeat consistently across responses.

Two tools were used for data collection: excerpting forms and semi-structured interviews. These tools were employed to identify the dimensions and components of the research topic. Initial data were obtained through a review of theoretical foundations and past research, which were then categorized and tabulated to identify core dimensions and key indicators.

Through semi-structured interviews with university faculty members and following necessary consensus, the final dimensions, components, and indicators were identified and validated. Thematic analysis was conducted using a word-based textual scrutiny and careful interpretation of interview content, employing a coding approach supported by MAXQDA software.

To ensure the validity of the study and the accuracy of the findings from the researcher's perspective, feedback was obtained from experienced faculty members familiar with the subject as well as domain experts. Additionally, participant input was integrated during the data analysis and interpretation phases to enhance trustworthiness.

3. Findings and Results

In this study, for the purpose of data collection, 12 experts proficient in the field of managerial engagement enthusiasm with smart technologies in the platform government were selected through purposive sampling. Their insights were employed to construct a framework for managers' engagement enthusiasm with smart technologies in public sector organizations. The initial interviewees were predominantly individuals with professional experience in this domain, who had also acquired relevant



knowledge through reviewing related literature. Selected participants included individuals with postgraduate education, managerial positions, at least seven years of professional experience, and a minimum age of 35.

In the first phase, interview transcripts and documents were carefully examined. For each interview and document, a table was created, placing excerpts related to the concept of managerial engagement enthusiasm with smart technologies in platform government on the left, and the corresponding assigned code on the right. These interview coding tables are subsequently presented. The initial stage of thematic analysis involves data collection and transcription. The first step in thematic analysis was data analysis and grouping into categories. The data sources used in this study included meetings of expert committees, official reports from upstream documents, international comparative studies, interviews, field presence, observations, and personal notes.

After gathering data and information, the researcher conducted open coding on the textual data. During this phase, by reviewing and reflecting on the texts, preliminary labels and themes were extracted. Coding at this stage was conducted manually by the researcher, representing the most time-consuming and critical part of thematic analysis. The researcher personally identified the relevant phrases, keywords, and assigned descriptive codes. If software was utilized, its role remained strictly instrumental—used only to expedite and facilitate the coding process.

The collected data from various sources—observation, interview, etc.—were examined and simultaneously segmented into distinct components for analysis. This segmentation aimed to streamline and accelerate the process of coding and the identification of both explicit and latent themes within the data. Each textual row was subsequently reviewed, and initial codes were generated. These codes reflected the researcher's interpretations of explicit meanings or latent intentions possibly embedded in the participants' statements. This consideration allowed for contextual and situational elements of the interviews to be incorporated into the analysis, resulting in a more precise and respondent-aligned interpretation.

All extracted codes were then discussed and critically examined. This process led to two key outcomes: the discovery of newer and more enriched themes from the analyzed data and the refinement of the initially identified codes. Reports, comparative studies, observations, and meeting minutes also contributed to the analytical process. Subsequently, separate tables were created to present the coding results of each interview individually.

As previously stated, after extracting the themes, during secondary coding, similar and related concepts were grouped under unified themes. Consequently, the vast number of data points (codes and concepts) were condensed into a limited set of core categories.

In the second phase—constructing organizing themes—the total number of descriptive codes from the first phase were grouped into related categories. This phase resulted in 59 basic themes, which were subsequently used to construct organizing and overarching themes.

Table 1. Organizing Themes and the Basic Themes Constituting Each Organizing Theme

Basic Themes	Organizing Themes
Customer unawareness / inter-organizational cooperation / information confidentiality	Information Confidentiality
Increased complexity / complexity management / complexity reduction / complexity escalation / barrier removal / trust feasibility / lack of display tools and resources / challenges in analysis / high costs	Challenge Orientation
Legal requirements / essentiality / regulations / survival and growth / obligation to succeed / competitive environment / fear of rivals	Compulsion and Enforcement
Effort and energy / active involvement / task execution / implementation / advocacy / feasibility	Action Orientation / Pragmatism
Information exchange / information sharing / enhanced information	Knowledge Management
Establishing proper infrastructure / necessary infrastructure / smart infrastructure / infrastructure improvement / technical facilities / human–technology relationship / business–technology interaction / information flow / communication levels / interoperability standards and policies	Infrastructural Actions
Bureaucracy / transparency / reduction of administrative corruption / conducting government processes through technology / limitations of traditional systems / governance and relationship management / e-democracy / information distribution / service simplification / system integration / accessibility / changing attitudes and approaches in service provision / integrated information / program design and implementation	Bureaucracy Elimination
Considerable improvement / creation of welfare and comfort / public empowerment / process efficiency / sustainable and equal welfare / citizen-centricity / better service provision / condition facilitation / timely access / effective service delivery / stakeholder responsiveness / comprehensive services	Welfare Creation
Value creation / efficiency enhancement / improved productivity and service quality / business and industry improvement / income growth and cost reduction / service level elevation and cost reduction / effective utilization / benefit creation / improved efficiency and effectiveness / cost reduction / utility and usability / cost and time / usefulness	Efficiency



Ability and willingness / individuals' attitude / user personality traits / individual behavior and environment / managerial enthusiasm / active or avoidant engagement / individual approach / key personal source / manager identity / aligned movement / managerial type and style / cognitive constraints / managerial belief / age and generational characteristics	Personality Traits
New devices and software / cultural infrastructure / updates and upgrades / environmental influences / interaction platform / social conditions / societal infrastructure / initial resources / groundwork / support services / reduced intermediaries / institutional cooperation / internal unit interoperability / collaboration / international interoperability / lack of collaboration / agency of coexistence	Capacity Building
Skill acquisition / lack of literacy / human capital development / training	Organizational Learning
Fundamental transformation / reform / changes in governance / lifestyle modification / continuous change / resistance to change / narrowing the government–citizen gap / anytime-anywhere communication / governmental empowerment	Transformation / E-Governance
Smartening / realization of smart government / e-government services / e-government tools / integrated service provision / enhanced integration and interoperability / use of ICT / digital government adoption / e-government / successful technology usage	E-Government Creation / E-Governance
Development of appropriate frameworks / R&D / in-progress initiatives / accessibility facilitation / service quality improvement / environmental enhancement / change and progress / external system communication	Development Orientation / Sustainable Development
Improved decision-making / optimal decision-making / forward-looking analytics / ergonomics and human factor engineering / vision / adherence to conceptual frameworks / planning	Goal Orientation and Foresight
Simplicity and ease / comprehensive services / optimization / increased public satisfaction / inequality and dissatisfaction / universal service access / accessibility / access strategies	Satisfaction Orientation / Citizen-Centricity
Information integration / information boundaries / personal data protection / policy safeguarding / espionage threats / information confidentiality / information transparency / service traceability / secure platforms / service guarantees / information needs / trust and confidence	Security Measures
Policy innovation / creativity enhancement / enablers of innovation, sustainability, competitiveness / risk-taking / new approaches / holistic and adaptive strategies / consideration of all factors / integrated service provision / diverse government services / comprehensive activities / impact on various life dimensions / widespread technological influence / multiple factor effects	Innovative Actions / Holistic Innovation
Skills and knowledge / expert workforce / management knowledge / specialized HR / expertise / new-generation utilization	Specialization
Technology adaptation / problem-centered mindset / technology opposition / criticism / capital and cost / recognition of private ownership / cost and health / uncertainty	Barrier Removal
Role of social context / dynamic environment / cultural promotion / indigenous technology / cultural construction / environmental and cultural factors / environmental culture / societal culture / organizational and societal culture / citizen participation	Cultural Development
Human capital empowerment / interpersonal communication	Skill Creation
Speed and precision / increased enthusiasm / healthy competition / business environment / industry growth / attractiveness / easy interaction / corruption reduction / engagement enthusiasm / support / user-friendliness	Motivation Creation / Attractiveness Generation
Interoperability / interaction and communication / interoperability creation / cooperation / international collaboration / inter-organizational interaction / active participation / inter-agency cooperation / intelligent interaction / managerial support deficit / effective and secure interaction / active interaction / collaboration / high-level interaction / technology engagement / business environment factors / managerial role and significance	Organizational Characteristics

Table 2 presents the overarching themes and the organizing themes that constitute each overarching theme.

Table 2. Overarching Themes and Their Constituent Organizing Themes

Organizing Themes	Overarching Themes	Main Themes
Specialization	Meritocracy	Cognitive Mechanisms
Skill Creation		
Knowledge Management		
Personality Traits	Individual–Organization Interaction	
Organizational Characteristics		
Transformation	E-Governance	
E-Government Development		
Bureaucracy Elimination		
Action Orientation	Development and Enhancement of ICT Infrastructure	Usefulness
Infrastructural Actions		
Capacity Building		
Efficiency	Efficiency and Effectiveness of Technology Engagement	
Welfare Creation		
Organizational Learning	Holistic Innovation	
Innovative Actions		
Development Orientation	Sustainable Development	
Goal Orientation and Foresight		
Cultural Development		
Barrier Removal	Problem-Solving Approach to Technological Challenges	Ecological Constraints



Challenge Orientation	
Compulsion and Enforcement	
Satisfaction Orientation	Citizen-Centricity via Attractiveness Creation
Motivation Creation	
Security Measures	ICT Security
Information Confidentiality	

To assess the reliability of the extracted codes, the method of intercoder reliability or intra-subject agreement between two coders was applied. For the calculation of test-retest reliability, several interviews were selected from among those conducted and were coded twice at a specific and short time interval. The codes assigned at both time points for each interview were then compared. The test-retest method serves to evaluate the consistency of the researcher's coding. In each interview, codes that were consistent across the two coding instances were labeled "agreed," and those that differed were labeled "disagreed."

In this study, for test-retest reliability (re-coding), three interviews were selected from the total interviews conducted. Each interview was coded twice, with a ten-day interval between the two coding sessions. The results of the coding comparison are presented in the table below. The number of agreements is reported as matched code pairs. For example, the number of agreements in interview J is 37 paired codes.

Table 3. Calculation of Coding Agreement

Row	Interview	Total Codes	Number of Agreements	Number of Disagreements	Test-Retest Reliability (%)
1	J	37	24	7	70
2	V	33	27	7	80
3	Z	32	25	7	75
	Total	101	78	23	75

The findings in the table indicate that across the two ten-day intervals, a total of 101 codes were generated. Among these, 78 codes were in agreement and 23 in disagreement across the three selected interviews. Therefore, the findings indicate that the test-retest reliability result, based on the applied formula, is 72%.

Since a reliability coefficient above 60% is considered acceptable, it can be concluded that the conducted codings demonstrate sufficient reliability.

In the third phase of data analysis, the organizing themes identified in the previous phase—based on theoretical literature and theoretical sensitivity—were consolidated into ten overarching themes and twenty-five organizing themes. The framework for managers' engagement enthusiasm with smart technologies in the platform government was ultimately presented as a thematic network.





Figure 1. Conceptual Framework of the Study

4. Discussion and Conclusion

The present study aimed to develop a comprehensive framework for understanding the engagement enthusiasm of public managers with smart technologies in the context of platform government. The findings, derived through a thematic analysis of expert interviews, led to the identification of ten overarching themes and twenty-five organizing themes, reflecting the cognitive, behavioral, infrastructural, organizational, and contextual dimensions of this interaction. The emergence of categories such as *meritocracy*, *efficiency*, *ICT security*, *transformational governance*, *sustainable development*, *organizational*

learning, and *problem-solving approaches* illustrates the multifaceted nature of managerial engagement in digital transformation initiatives.

One of the most prominent findings was the central role of cognitive and personality-related factors in shaping engagement with smart technologies. The themes of *specialization*, *skill creation*, and *knowledge management* revealed that managers with higher levels of digital literacy, self-efficacy, and technology affinity were more inclined to participate actively in platform-based governance initiatives. This is consistent with prior studies indicating that psychological readiness, such as *affinity for technology interaction*, significantly influences technology adoption and use in professional contexts (Barz et al., 2024; Franke et al., 2019). In particular, the extension of the Technology Acceptance Model (TAM) to include variables such as self-regulated learning and technological affinity has helped capture these nuances (Barz et al., 2024).

Additionally, organizational traits and structures emerged as critical components in enabling or hindering managerial interaction with smart technologies. Themes such as *organizational characteristics* and *personality–organization alignment* highlighted the importance of leadership style, organizational culture, and administrative flexibility in influencing engagement levels. These results align with prior scholarship that emphasizes the need for supportive organizational environments and clear policy directives to promote technological engagement (Gil-Garcia et al., 2016; Scholl & Scholl, 2014). For instance, where rigid bureaucratic structures exist, even technologically capable managers may struggle to implement or support digital transformation effectively (Gil-Garcia & Luna-Reyes, 2006). This confirms that organizational design must evolve to accommodate the modular and interoperable nature of platform government.

Another key result was the identification of transformational and structural enablers of platform government. The themes of *bureaucracy elimination*, *government digitization*, and *transformative change* illustrate the institutional shifts required to operationalize digital governance. These findings resonate with the view that smart governance requires rethinking institutional configurations to enable real-time service delivery, cross-agency collaboration, and citizen co-creation (Gil-Garcia, 2012; Gil-Garcia et al., 2015). The successful realization of platform government, therefore, is not merely a matter of technological deployment but also of structural redesign. Managers must lead the integration of digital systems into traditional bureaucracies, a process that demands not only technical acumen but also change management capabilities.

The study also confirmed that infrastructural and technical preparedness—including digital platforms, interoperable systems, and secure communication channels—is a necessary precondition for effective engagement. The organizing themes of *infrastructural development*, *capacity building*, and *ICT security* indicate that without a robust technical foundation, efforts to engage managers with smart technologies may falter. Prior research similarly points out that the presence of foundational digital infrastructure is critical for the success of platform-based models of governance (Gil-Garcia et al., 2014; Kim et al., 2022). Security, in particular, was highlighted by participants as a non-negotiable condition for engagement, reflecting broader concerns about data privacy, cyber threats, and public trust (Huaxiongjiang et al., 2022).

From a governance perspective, the themes of *sustainability*, *goal orientation*, and *citizen-centricity* suggest that public value creation and strategic alignment are essential drivers of managerial engagement. Managers were more enthusiastic about interacting with smart technologies when they perceived these tools as enablers of long-term societal benefits, such as improved service quality, equity, and environmental sustainability. These findings echo the conceptualization of platform government as a model of governance that seeks to align public policy with systemic, citizen-driven outcomes (Fadaei et al., 2023; Gil-Garcia et al., 2015). In particular, the emphasis on *sustainable development* and *co-creation* aligns with current discourse on smart cities and digital public innovation (Gil-Garcia & Aldama-Nalda, 2013).

The findings also point to barriers that limit engagement, especially those related to regulatory complexity, cultural resistance, and lack of managerial incentives. The themes of *challenge orientation*, *compulsion and enforcement*, and *barrier removal* reflect the systemic and contextual constraints that managers face. In many cases, top-down mandates for digital transformation have been imposed without sufficient support or alignment with local contexts, leading to resistance or passive compliance. These findings confirm the need for context-sensitive, bottom-up approaches in implementing platform governance models (Moghimi, 2015; Zarandi & Asadbak, 2023). Cultural adaptation and trust-building remain essential for long-term engagement and should be embedded within any digital transformation strategy.



Notably, the study found strong emphasis on citizen satisfaction and service responsiveness as motivational factors for managerial engagement. Themes such as *citizen-centricity*, *motivation creation*, and *user-friendly design* suggest that when smart technologies demonstrably improve public service delivery and enhance user experiences, managers are more inclined to adopt and promote them. This aligns with earlier studies emphasizing that public managers are motivated not just by efficiency but also by their perceived impact on public satisfaction and social outcomes (Chang & Cheung, 2001; Gil-Garcia, 2012). The human-centered orientation of platform government thus reinforces the need for inclusive and participatory design practices in public technology deployment (Jung et al., 2025).

Finally, the integration of *innovative behavior*, *organizational learning*, and *strategic foresight* points toward the importance of dynamic capabilities in governance. Participants frequently cited the need for future-readiness, experimentation, and reflexivity in engaging with smart technologies. This reinforces the claim that platform government is a dynamic system, requiring continuous learning and iteration to respond to emergent challenges and opportunities (Gil-Garcia et al., 2016; Hoshino & Zhong, 2007). Moreover, the results support the role of scenario planning and futures thinking as tools for cultivating long-term strategic alignment in smart governance (Moghim, 2015).

Despite the richness of the findings, the study is not without limitations. First, the data were derived from a relatively small sample of experts, which may not fully capture the diversity of managerial experiences across different institutional and geographical contexts. The focus on qualitative interviews, while yielding depth, limits the generalizability of the results. Additionally, the study's reliance on self-reported data introduces potential biases in how participants perceive and describe their engagement with smart technologies. Furthermore, the rapid evolution of digital platforms means that the findings may become outdated unless supplemented with longitudinal research.

Future studies could benefit from expanding the research design to include quantitative methods such as surveys or experimental simulations to validate and extend the proposed framework. A comparative approach across countries or administrative levels (local, regional, national) would also provide insights into contextual variations in platform government implementation. Moreover, longitudinal studies could track how managerial engagement evolves over time in response to changes in policy, technology, and organizational structure. Finally, further exploration of the citizen perspective would enrich our understanding of the bidirectional relationship between managerial action and public trust in smart governance.

To operationalize platform government effectively, public sector organizations should invest in building both digital infrastructure and digital literacy among managers. This includes providing targeted training, supportive leadership, and agile regulatory frameworks that empower managerial innovation. It is also essential to foster a culture of experimentation and collaboration, where feedback from citizens and frontline employees informs technology adoption. Embedding strategic foresight and co-creation mechanisms into governance processes will help ensure that smart technologies serve not just operational efficiency but also broader democratic and developmental goals.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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Conflict of Interest

The authors report no conflict of interest.

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References

- Barz, N., Benick, M., Dörrenbächer-Ulrich, L., & Perels, F. (2024). Students' acceptance of e-learning: Extending the technology acceptance model with self-regulated learning and affinity for technology. *Discover Education*, 3(1), 114. <https://doi.org/10.1007/s44217-024-00195-7>
- Chang, M., & Cheung, W. (2001). Determinants of the intention to use Internet. *Information and Management*, 39(1), 1-14. [https://doi.org/10.1016/S0378-7206\(01\)00075-1](https://doi.org/10.1016/S0378-7206(01)00075-1)
- Fadaei, M. J., Attaradi, M. R., & Javan Jafari Bojnordi, A. (2023). Transition from Modern Government to Platform Government: A Study Based on Interpretive Research and the Teachings of the Sharing Economy. *Quarterly Journal of Public Management Perspectives*, 14(3), 183-210. <https://www.sciencedirect.com/>
- Franke, T., Attig, C., & Wessel, D. (2019). A personal resource for technology interaction: development and validation of the affinity for technology interaction (ATI) scale. *International Journal of Human-Computer Interaction*, 35(6), 456-467. <https://doi.org/10.1080/10447318.2018.1456150>
- ghohari. (2017). E-Government Future in the era of 4th Industrial Revolution. *International Information Institute (Tokyo). Information*, 20(5B), 3539-3547. <https://search.proquest.com>
- Gil-Garcia, J. R. (2012). Towards a smart State? Inter-agency collaboration, information integration, and beyond. *Information Polity*, 17(3, 4), 269-280. <https://doi.org/10.3233/IP-2012-000287>
- Gil-Garcia, J. R., & Aldama-Nalda, A. (2013). Smart city initiatives and the policy context: the case of the rapid business opening office in Mexico City. Proceedings of the 7th International Conference on Theory and Practice of Electronic Governance, <https://doi.org/10.1145/2591888.2591931>
- Gil-Garcia, J. R., Helbig, N., & Ojo, A. (2014). Being smart: Emerging technologies and innovation in the public sector. *Government Information Quarterly*, 31, 11-18. <https://doi.org/10.1016/j.giq.2014.09.001>
- Gil-Garcia, J. R., & Luna-Reyes, L. F. (2006). Integrating conceptual approaches to e-government. In *Encyclopedia of e-commerce, egovernment and mobile commerce* (pp. 636-643). <https://doi.org/10.4018/978-1-59140-799-7.ch102>
- Gil-Garcia, J. R., Pardo, T. A., & Nam, T. (2015). What makes a city smart? Identifying core components and proposing an integrative and comprehensive conceptualization. *Information Polity* VL - 20(1), 61-87. <https://doi.org/10.3233/IP-150354>
- Gil-Garcia, J. R., Zhang, J., & Puron-Cid, G. (2016). Conceptualizing smartness in government: An integrative and multi-dimensional view. *Government Information Quarterly*. <https://doi.org/10.1016/j.giq.2016.03.002>
- Hoshino, H., & Zhong, N. (2007). Dynamic Hybrid Type Mining in an Intelligent e-Government Model. Proceedings of the 2007 IEEE/WIC/ACM International Conferences on Web Intelligence and Intelligent Agent Technology-Workshops, <https://doi.org/10.1109/WI-IATW.2007.119>
- HuaxiongJiang, StanGeertman, & PatrickWitte. (2022). The contextualization of smart city technologies: An international comparison. *Journal of Urban Management*. <https://www.sciencedirect.com>
- Jung, H., Wiberg, M., Malakhata, E., & Novakazi, F. (2025). Human-Technology Interaction: Design and Implementation of Interactive Systems. In *Human-Technology Interaction: Interdisciplinary Approaches and Perspectives* (pp. 3-22). https://doi.org/10.1007/978-3-031-78357-9_1
- Kim, S., Andersen, K. N., & Lee, J. (2022). Platform government in the era of smart technology. *Public Administration Review*, 82(2), 362-368. <https://doi.org/10.1111/puar.13422>
- Moghimi, A. (2015). Epistemology of Futures Studies in Theoretical Approaches to Urban Planning, Architecture and the Construction Industry. *Urban Management*, 14(38), 75-104. <https://sid.ir/paper/92138/fa>
- Scholl, H. J., & Scholl, M. C. (2014). Smart governance: A road map for research and practice. iConference 2014 Proceedings, [http:// dx.doi.org/ 10.9776/14060](http://dx.doi.org/10.9776/14060)
- Zarandi, S., & Asadbak, M. (2023). Analyzing the Fundamental Reasons for Creating Platform Government in Europe and America. 1st International Conference on Management, Economics, Entrepreneurship, and Industrial Engineering, <https://civilica.com/doc/1719266>

