



## Digital Transformation and Work Culture Change in Public Administration: Evidence from Indonesia

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#### ABSTRACT

*This study investigates the impact of digitalization on civil servants' work culture at the Class I Navigation District of Ambon, addressing a gap in the literature regarding the integration of New Public Governance (NPG) principles with technology adoption in geographically fragmented public institutions. The urgency of this research is underscored by the operational context of high-risk maritime environments, where effective service delivery is critical for safety and organizational reliability. Using a qualitative case study design, data were collected over three months through semi-structured interviews, participant observation, and document analysis with 15 purposively selected informants across generational and hierarchical groups. Triangulation ensured methodological rigor, while interactive data analysis allowed themes to emerge inductively and in alignment with theoretical frameworks. The study applies the Technology Acceptance Model (TAM) and the ADKAR change model to interpret both psychological and procedural aspects of digital adoption. Findings indicate that digital systems, including AIS, MaritimHUB, E-Kinerja, SIK, SRIKANDI, E-Correspondence, SIMAN, and SAKTI, have significantly transformed operational and administrative work culture, enhancing efficiency, transparency, and accountability. Top-down directives combined with structured training facilitate adoption, yet barriers such as uneven system use, digital literacy gaps, and infrastructure limitations remain. Aligning technological implementation with organizational change and collaborative governance principles is critical for sustaining effective digital transformation. The study recommends continuous capacity-building, infrastructure improvements, and integrated application management to strengthen digital work culture and service quality.*

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### INTRODUCTION

Indonesia is the world's largest archipelagic state, characterized by highly complex geographical conditions. Its maritime territory covers approximately 6.4 million square kilometers and consists of more than 17,500 islands, the majority of which are small islands with

limited land area and uneven spatial distribution (Wicaksana, 2017); (Camin, 2021). This geographical configuration positions the sea not only as a strategic natural resource, but also as a critical space for social, economic, and governmental activities. Interregional connectivity in Indonesia relies heavily on maritime transportation, making maritime safety and security a fundamental responsibility of the state (Abiddin, 2025). Within this context, maritime navigation services constitute a vital form of public service, essential for safeguarding human life, ensuring national connectivity, and supporting the smooth flow of goods and passengers.

Maritime safety is supported by the provision of navigation aids, maritime communication systems, and state-operated navigation vessels administered by the government. Navigation Districts function as technical implementation units under the Ministry of Transportation, responsible for maintaining lighthouses, buoys, beacons, and operating state navigation vessels as part of public service delivery (Lauder & Lauder, 2016). The Class I Navigation District of Ambon oversees a strategically significant and geographically fragmented maritime area covering most of the Maluku and North Maluku archipelagos (Nasrullah & Toja, 2025). This operational context, marked by dispersed islands, high maritime traffic, and elevated navigational risks, requires public organizations to possess adaptive capacity, technological capability, and organizational flexibility to ensure effective and sustainable service provision (Dao et al., 2024).

The digital era has profoundly transformed public administration worldwide. Digitalization is no longer understood merely as the adoption of information and communication technologies, but rather as a comprehensive transformation encompassing organizational structures, work processes, modes of interaction, and the values underpinning public sector work culture (Mergel et al., 2019) ; (Dunleavy & Margetts, 2021). In the public sector, digital transformation is widely regarded as a strategic instrument for enhancing efficiency, transparency, accountability, and service quality. Recent international studies demonstrate that digital technologies can accelerate service delivery, reduce administrative burdens, and strengthen public trust in government institutions (Lindgren et al., 2019); (Vial, 2019).

However, contemporary scholarship also emphasizes that the success of digital transformation is not determined solely by technological sophistication, but is highly contingent upon human factors and organizational culture. Digitalization often generates resistance, technostress, and tensions between established bureaucratic values and emerging demands for flexibility, collaboration, and data-driven decision-making (Tangi et al., 2021); (Kuipers et al., 2022). For civil servants, digital transformation challenges long-standing hierarchical and rule-bound administrative practices, while simultaneously requiring the development of a work culture oriented toward performance, cross-unit collaboration, and continuous learning.

This transformation aligns with the broader paradigm shift in public administration from New Public Management (NPM) toward New Public Governance (NPG). NPG emphasizes that public service delivery can no longer rely exclusively on hierarchical control or market-based mechanisms, but instead must be organized through collaborative governance networks involving multiple actors, both within and beyond the public sector (Osborne, 2010); (Torfing et al., 2020). Within the NPG framework, digital technologies function as key enablers that facilitate coordination, information sharing, and the co-production of public services. Consequently, digital transformation and work culture change should be understood as interdependent processes within contemporary public sector reform.

In the case of the Class I Navigation District of Ambon, the implementation of digital systems such as e-Navigation, Vessel Traffic Service (VTS), and e-Office represents a central component of Indonesia's maritime digitalization agenda. These systems aim to enhance the accuracy of navigational information, improve the speed and quality of operational decision-making, and increase administrative efficiency. Nevertheless, the adoption of these technologies has implications that extend beyond technical procedures, fundamentally reshaping the work culture of civil servants. Traditional practices characterized by manual processes, face-to-face interactions, and rigid hierarchical structures are gradually being replaced by digital workflows, online coordination, and data-driven operations, thereby transforming internal organizational dynamics.

Recent international studies over the past five years indicate that digital transformation in the public sector frequently encounters challenges related to uneven digital competencies, adaptation difficulties among senior employees, and the erosion of social cohesion due to reduced face-to-face interaction (van der Voet et al., 2019); (Fernández & Gallardo-Gallardo, 2021); (Meyer et al., 2023). However, much of this literature focuses on public organizations in developed countries with relatively advanced digital infrastructures. Empirical research examining digital-induced work culture transformation in archipelagic regions, particularly within technically intensive and safety-critical public organizations such as maritime navigation authorities, remains limited.

This study addresses a clear research gap in the existing literature: the lack of empirically grounded analyses that integrate the New Public Governance perspective to examine how digitalization reshapes civil servants' work culture in strategic public service institutions operating in geographically fragmented contexts. Previous studies tend to treat technology adoption and organizational performance as separate phenomena, offering limited insight into how digitalization transforms core public sector values such as discipline, collegiality, hierarchy, and public service ethos. Moreover, issues such as generational divides and technostress are often examined in isolation, rather than as integral components of broader cultural transformation processes within public organizations.

The urgency of this research is heightened by the operational context of the Class I Navigation District of Ambon, which operates in high-risk maritime environments where service failures may directly threaten navigational safety and human lives. Inadequate management of digital transformation and work culture change may undermine not only organizational effectiveness but also the reliability and resilience of maritime public services. Accordingly, a comprehensive understanding of how digitalization influences civil servants' work culture, and how such transformation can be governed in line with NPG principles, is of both theoretical and practical importance.

The state of the art of this study lies in its integrative analytical approach, which brings together digital transformation, work culture change, and New Public Governance within a single conceptual framework. By focusing on a maritime navigation authority in an archipelagic region, this research provides novel empirical insights into how public organizations adapt culturally to digital transformation under conditions of geographical dispersion and operational complexity. The novelty of the study resides not only in its empirical setting, which remains underrepresented in international scholarship, but also in its theoretical contribution by linking civil servants' work culture transformation to core NPG principles, including collaboration, adaptability, and digitally enabled co-production of public services.

Based on this background, the objective of this study is to analyze how digital transformation influences the work culture of civil servants at the Class I Navigation District of Ambon from a New Public Governance perspective, and to identify key challenges and strategic opportunities for fostering an effective, inclusive, and sustainable digital work culture in maritime public service delivery.

## METHODS

This study uses a qualitative case study design to explore in depth the impact of digitalization on work culture among civil servants at the Class I Navigation District of Ambon. Qualitative research enables the researcher to understand participants' lived experiences, meanings, and behaviour in context (Rustamana et al., 2024), which is important for examining perceptions and practices related to digital transformation in public sector organizations. The case study approach is appropriate when the focus is on contemporary phenomena within real life contexts where the boundaries between phenomenon and context are not clearly evident (Yin, 2003, as discussed in general case study methodology), and it provides depth and richness that other methods might not capture.

The research was carried out at Distrik Navigasi Kelas I Ambon, chosen due to its strategic role in maritime navigation services and complex geographic conditions that influence organizational operations. Data collection occurred over a three month period, involving preparation (literature review and research approvals), field data gathering, and subsequent analysis and reporting. A purposive sampling technique was used, selecting 15 informants from different generational groups (Baby Boomers, Generation X, Millennials/Gen Z) and job levels (staff, supervisors, leadership), which aligns with methodological guidance that purposive sampling is suitable for identifying information rich cases for in depth qualitative inquiry (Rustamana et al., 2024).

Primary data were collected through semi structured interviews, participant observation, and document analysis. Semi structured interviews allow flexibility to probe deeply into respondents' views and experiences, as well as to explore unanticipated issues that emerge during conversations. Interviewing is recognized as a core method in qualitative research for capturing detailed narratives that reflect participants' perspectives (Rustamana et al., 2024). Participant observation involves direct engagement with organizational activities and provides contextual insights into how digital tools are integrated into daily workflows, while document analysis examines organizational policies, manuals, and reports to understand formalized practices and norms (Rustamana et al., 2024).

Methodological rigor in this study is strengthened through triangulation, a strategy that compares evidence from multiple sources to ensure the consistency and credibility of findings. Triangulation has been widely discussed in qualitative research literature as a way to enhance validity and reduce bias by integrating diverse data collection methods and sources (Vivek et al., 2023). By comparing interview data, observational field notes, and document content, the researcher can identify convergent themes and discrepancies, thereby enhancing the robustness of the analysis and interpretations.

Data analysis followed an interactive analytic process involving data reduction, data display, and conclusion drawing/verification. This approach is consistent with qualitative analysis frameworks that emphasize iterative engagement with data, allowing themes to emerge inductively while also engaging with theoretical constructs relevant to the study (Atma &

Salamat, 2025). Coding, categorization, and thematic analysis were used to organize data around key constructs such as digital adaptation, collaboration, technostress, and cultural shifts.

To interpret the findings within theoretical frameworks, this study integrates the Technology Acceptance Model (TAM) and the ADKAR change model. TAM is frequently applied in studies of digital adoption to explain how perceived usefulness and perceived ease of use influence individuals' acceptance and use of technology (Atma & Salamat, 2025). Meanwhile, the ADKAR model (Awareness, Desire, Knowledge, Ability, Reinforcement) provides a structured lens to understand individual and organizational change processes, helping to interpret stages of adaptation among civil servants during digital transformation (Ratnawati et al., 2025). The combined use of these models allows the research to examine both psychological and procedural facets of digitalization within the organizational culture of public service.

## RESULTS AND DISCUSSION

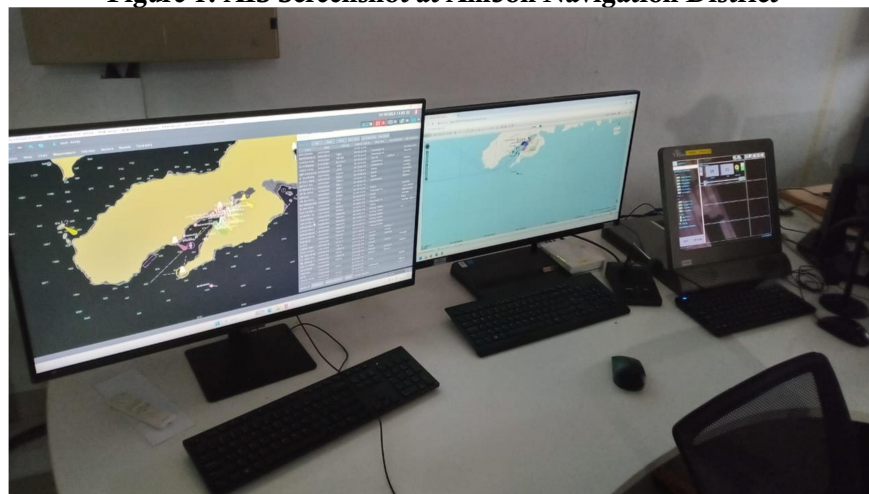
### *Digitalization Process and Its Impact on Work Culture Transformation at Class I Ambon Navigation District*

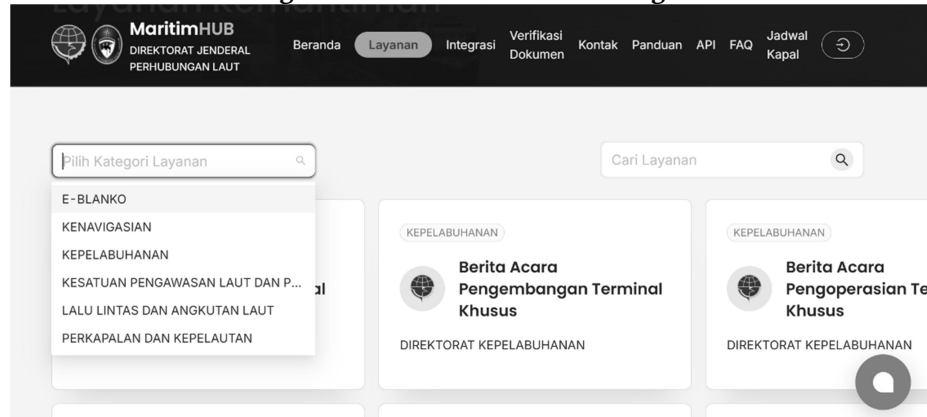
The digitalization process at Class I Ambon Navigation District is implemented through a combination of top-down directives from the Ministry of Transportation, particularly the Directorate General of Sea Transportation (DJPL), and internal initiatives within the district. The transformation from manual to digital systems has been nearly comprehensive, covering coastal radio stations, lighthouses, and critical navigational tools such as the Automatic Identification System (AIS). Based on the interview, the Head of the HR and Public Relations Subdivision explained that the planning of lighthouse digitalization begins with proposals from the district, yet any directives from the Ministry must be followed by the district. She stated that digitalization planning, such as the implementation of the SRIKANDI application, is directly mandated from the first echelon of the Ministry, making the district merely an executor (Interview, October 16, 2025, 09:29).

*“For example, if a tool requires digital updates at the lighthouse, planning is carried out thoroughly through proposals. However, since this district is also under echelon 1 (Ministry), if digitalization is directed from echelon 1, we must comply. For instance, the SRIKANDI application is directed to be used. Thus, the planning resides at the Ministry level”* (Rachmatiyah, 2025, p.1).

Digital transformation is also evident in operational navigation, where AIS is now integrated with internet networks and satellites, allowing real-time vessel monitoring. Additionally, the MaritimHUB portal integrates 63 applications and 309 services to enhance efficiency, transparency, and accessibility for civil servants.

**Figure 1: AIS Screenshot at Ambon Navigation District**



**Figure 2: MaritimHUB Home Page.**

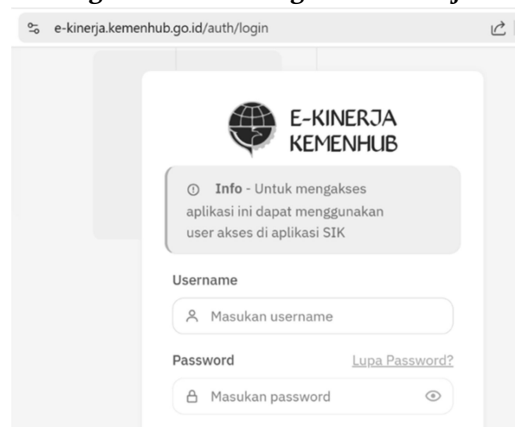
This aligns with the e-governance framework, which emphasizes the role of technology in improving public service quality (Mergel et al., 2019).

In administrative management, various applications such as E-Kinerja, SIK, SRIKANDI, E-Correspondence, SIMAN, and SAKTI support the digitalization of performance assessments, employee data management, dynamic archiving, correspondence handling, state asset management, and financial reporting. Interviews with several civil servants revealed that E-Kinerja is mandatory for individual performance evaluations, while SRIKANDI facilitates electronic correspondence across units.

*“Training is conducted hierarchically from echelon 1 (Ministry). Then, echelon 1 socializes or provides technical guidance to implementers at each technical implementation unit (UPT). Training is conducted both offline and online (via Zoom meetings)”* (Rachmatiyah, 2025, p.2).

The digitalization of administrative management at Class I Ambon Navigation District is supported by several dedicated applications, each playing a crucial role in improving efficiency, transparency, and accountability in civil service operations. Civil servants reported that the use of these applications streamlines workflow and minimizes manual errors, which aligns with the Technology Acceptance Model (TAM) and ADKAR framework for technology adoption and organizational change (Venkatesh & others, 2022); (Hiatt, 2021).

E-Kinerja is a web-based application used to conduct performance evaluations for civil servants based on job analysis and workload assessment. It has become a mandatory tool for individual performance measurement, ensuring standardized evaluations across units. Civil servants emphasized that E-Kinerja provides clear performance targets and facilitates reporting.

**Figure 3: Home Page of E-Kinerja**

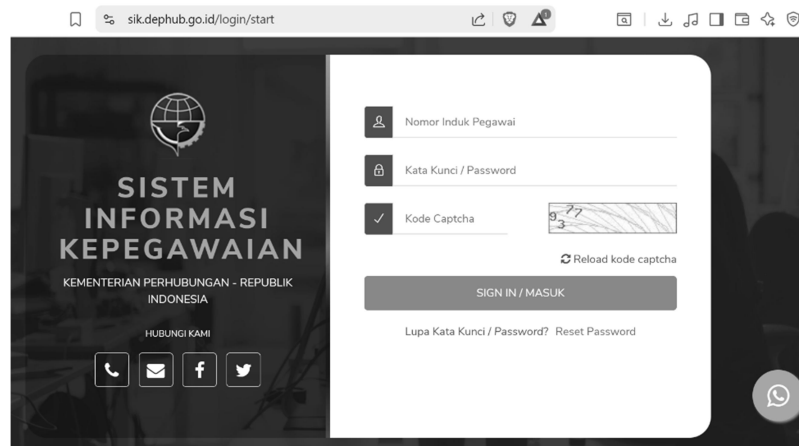
The use of E-Kinerja enables accurate and standardized performance assessments, reducing administrative errors and promoting accountability. Civil servants highlighted:

*“Training is conducted hierarchically from echelon 1 (Ministry). Then, echelon 1 socializes or provides technical guidance to implementers at each technical implementation unit (UPT). Training is conducted both offline and online (via Zoom meetings)”* (Rachmatiyah, 2025, p.2).

This demonstrates structured guidance in supporting user adoption, consistent with TAM principles.

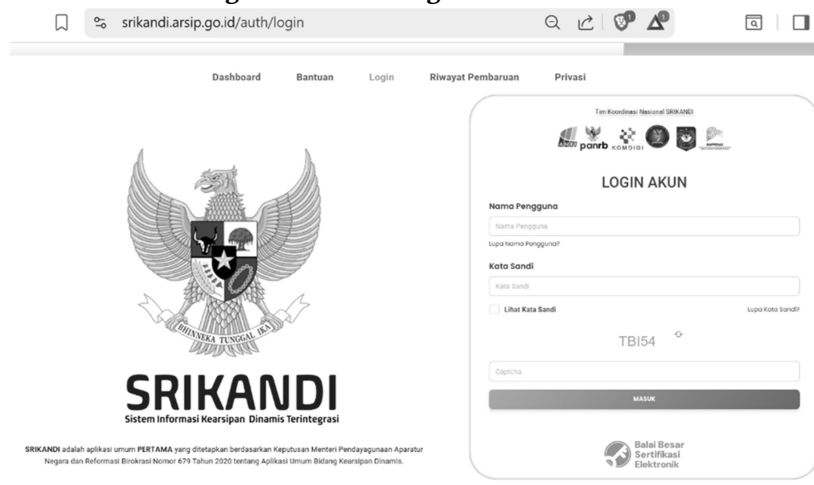
SIK (Sistem Informasi Kepegawaian) manages employee data including personal details, career history, promotions, transfers, and education. It centralizes personnel information, reducing administrative delays and increasing transparency.

**Figure 4: Home Page of SIK**



The ADKAR framework explains civil servants' adaptation process to SIK, gradually building awareness, desire, knowledge, ability, and reinforcement for effective use (Hiatt, 2021). SRIKANDI is a dynamic archiving system facilitating electronic correspondence management, including document submission, archival, and destruction processes.

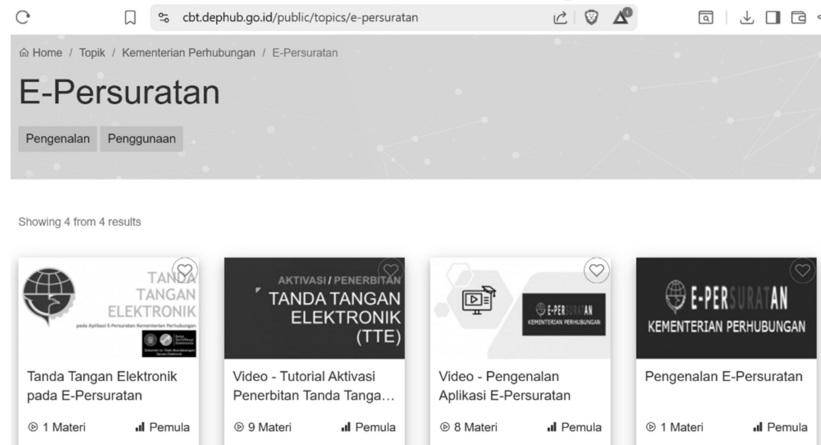
**Figure 5: Home Page of SRIKANDI**



Civil servants reported that SRIKANDI enhances document handling efficiency and supports seamless digital workflows across units.

E-Correspondence digitizes incoming and outgoing letters, memos, and dispositions, supporting electronic signatures and centralized tracking.

**Figure 6: Home Page of E-Correspondence**



Employees reported that E-Correspondence ensures document integrity and accelerates coordination between units.

SIMAN is a state asset management system that monitors the lifecycle of government-owned assets.

**Figure 7: Home Page of SIMAN**



Civil servants can track assets in real time, improving record accuracy and preventing mismanagement.

SAKTI (Sistem Aplikasi Keuangan Tingkat Instansi) supports financial management including inventory, assets, and budget reporting.

**Figure 8: Home Page of SAKTI**





The integration of these administrative applications ensures efficient, transparent, and accountable financial operations. Interviews confirmed that structured guidance from the Ministry supports adoption:

*“Training and technical guidance from the Ministry help us understand and implement these applications effectively”* (Rachmatiyah, 2025, p.2).

### ***Drivers and Barriers of Digitalization at Class I Ambon Navigation District***

The implementation of digitalization at Class I Ambon Navigation District does not occur in isolation, but is influenced by multiple internal and external factors that interact with each other. Understanding these factors is essential to explain the dynamics behind the technology adoption process and why it exhibits specific characteristics. Field findings reveal that digitalization is driven by structural, technical, and cultural forces. However, several significant challenges also exist, mostly stemming from human resources, infrastructure, and entrenched work culture.

Regulation Permenhub PM 4 of 2023 concerning the Implementation of Maritime Telecommunication and Traffic Management in Indonesian Waters serves as a major driver supporting the digital transformation of Indonesia's maritime sector. This regulation replaces Permenhub No. PM 26 of 2011 and aligns with technological developments and international standards. It establishes technical and operational standards for all maritime telecommunication facilities, ensuring compliance with international norms. Consequently, Permenhub PM 4 of 2023 not only updates regulatory frameworks but also provides a robust legal basis for driving digital transformation in the maritime sector toward a safer, more efficient, and globally connected system. Efficiency and maritime safety demands are additional drivers. As (Yulanda & Adnan, 2024) argue, public service digitalization is considered a primary solution to improve efficiency in service delivery, reducing bureaucracy, saving time, and optimizing resources. Furthermore, digitalization enhances transparency, accountability, and public participation in decision-making.

Based on the interview with the Head of HR and Public Relations Subdivision, Mrs. Rachmatiyah, digitalization is largely motivated by organizational needs, technological advancement, and efficiency:

*“Digitalization is driven by organizational needs, technological development, and certainly efficiency, because manual procedures are clearly different from digital ones”* (Rachmatiyah, 2025, p.2).

This statement also reflects transformational leadership support at Class I Ambon Navigation District, enabling the digitalization process. Another informant emphasized:

*“Digitalization allows conventional tools to be upgraded and expanded in functionality”* (Interview on October 14, 2025, 14:41, Informant 8).

According to this informant, digitalization is not merely a replacement of existing tools but a transformation that adds value. By integrating digital technology, conventional tools can be enhanced and their functions expanded, modernizing existing infrastructure and providing a more efficient and multifunctional system.

Despite these drivers, barriers remain. Civil servants exhibit varying levels of digital literacy across generations. Initial use of new digital technologies often generates discomfort and stress due to unfamiliarity. However, curiosity, enthusiasm, and the necessity to comply with digitalization requirements motivate staff to learn and adapt. Integration of applications is

generally sufficient, but some systems remain incomplete or unevenly adopted across units. For example, one informant noted challenges with the SRIKANDI system:

*“The obstacle I found is that the SRIKANDI application does not have complete data and not all units use it. For outgoing addresses, we still need to contact the target institution outside the application. It is impractical and not fully automated for some data”* (Interview on October 27, 2025, 10:21, Informant 4).

This informant, also an admin for several digital applications, highlighted that the main issues involve incomplete data and uneven adoption. For applications requiring individual input such as E-Kinerja, lighthouse personnel rely on reporting to Ambon-based staff who then input the data. Another informant explained:

*“There is an internal admin who helps generate reports. All reports are submitted to the admin. This relates to both network limitations and insufficient IT skills”* (Interview on October 27, 2025, 10:21, Informant 4).

To overcome these technical barriers, the district relies on internal admins in each unit who assist with report generation. This approach addresses two fundamental challenges: limited internet infrastructure and insufficient IT skills among some users.

### **Discussion**

The digitalization process at Class I Ambon Navigation District demonstrates a comprehensive application of digital governance principles, particularly aligning with the frameworks of e-governance, Technology Acceptance Model (TAM), ADKAR, and collaborative governance theories. The district’s adoption of digital systems—ranging from operational navigation tools such as the Automatic Identification System (AIS) to administrative platforms including E-Kinerja, SIK, SRIKANDI, E-Correspondence, SIMAN, and SAKTI—exemplifies the interplay between technological infrastructure and organizational adaptation.

From a theoretical perspective, the top-down approach from the Ministry of Transportation reflects centralization in decision-making characteristic of traditional public governance. This aligns with New Public Governance (NPG) principles, which emphasize networked governance where hierarchical structures coexist with localized adaptation processes (Osborne, 2018). The Ministry provides overarching directives, ensuring uniform standards and regulatory compliance, while the district operationalizes these policies according to local context. The structured guidance and training programs resonate with TAM’s focus on perceived usefulness and ease of use, highlighting that clear procedures and support mechanisms are critical for technology adoption (Venkatesh & others, 2022). The district’s integration of multiple operational and administrative applications illustrates that digitalization can simultaneously enhance efficiency, transparency, and accountability, core objectives of e-governance frameworks (Mergel et al., 2019).

The operational application of AIS and the MaritimHUB portal demonstrates how digital tools support real-time information flow and decision-making. This supports the theoretical argument in e-governance literature that digital technologies improve service quality and organizational responsiveness (Heeks, 2023). Similarly, administrative applications like E-Kinerja and SIK operationalize performance management and personnel data centralization, aligning with TAM and ADKAR theories, which explain adoption as a combination of user perceptions and structured organizational support for change (Hiatt, 2021); (Venkatesh & others, 2022). The adoption of dynamic archiving systems (SRIKANDI) and E-Correspondence also exemplifies the digital transformation of routine administrative tasks, reducing reliance on manual processes while increasing transparency and auditability—consistent with public sector digitalization

literature that emphasizes efficiency, error reduction, and accountability as critical outcomes (Gil-García & Flores-Zúñiga, 2020).

Collaborative applications, including Zoom, WhatsApp, and official email systems, exemplify the cultural dimension of digitalization. These tools shift the work culture from predominantly face-to-face interaction to real-time digital communication, reflecting the principles of collaborative governance. The theory posits that effective inter-unit coordination, communication, and shared decision-making are essential for organizational performance in complex public institutions (Agranoff & McGuire, 2021). In practice, these digital platforms enhance information dissemination, coordination speed, and decision-making efficiency, illustrating how technology not only transforms processes but also reshapes organizational norms and behavior.

The research findings also align with discussions on digital maturity in public organizations, which emphasize the need for organizational structures, human resources, and technical infrastructure to adapt concurrently. Integration challenges, such as uneven adoption of applications and infrastructure limitations in remote sites, reflect barriers identified in the literature on digital transformation in public administration (Scholl & Kempf, 2021). These barriers highlight the importance of adaptive capacity and change management strategies for sustaining digital transformation efforts, reinforcing the theoretical relevance of ADKAR, which frames technology adoption as a staged process requiring awareness, desire, knowledge, ability, and reinforcement (Hiatt, 2021).

Furthermore, the drivers of digitalization at Class I Ambon Navigation District—regulatory mandates, efficiency imperatives, and technological opportunities—correspond with established theoretical insights on e-government adoption. Regulations, such as Permenhub PM 4 of 2023, provide the legal and technical framework that legitimizes and encourages the use of digital tools, consistent with institutional theory, which argues that formal rules shape organizational behavior and innovation adoption (Scott, 2024). Efficiency motivations, highlighted in the adoption of integrated platforms like MaritimHUB, align with rational choice perspectives, suggesting that organizations pursue digitalization to optimize resource use, reduce transaction costs, and enhance service delivery performance.

The overall transformation observed reflects a synergistic interaction between technological implementation and organizational change. Digitalization has not only upgraded technical infrastructure but also reshaped work culture, requiring civil servants to adapt to real-time operations, manage technostress, and develop digital competencies. This observation is consistent with socio-technical systems theory, which posits that successful digital transformation requires simultaneous alignment of technology, people, and organizational processes (Baxter & Sommerville, 2021). In the case of Class I Ambon Navigation District, the structured training, hierarchical guidance, and application integration demonstrate the district's ability to manage this alignment effectively.

## CONCLUSION

The digitalization process at Class I Ambon Navigation District has transformed both operational and administrative work culture through the integration of advanced digital systems, including AIS, MaritimHUB, E-Kinerja, SIK, SRIKANDI, E-Correspondence, SIMAN, and SAKTI. The study demonstrates that top-down directives from the Ministry, combined with structured training and local adaptation, facilitate effective technology adoption, enhancing efficiency, transparency, and accountability in civil service operations. Challenges such as uneven

application adoption, limited digital literacy, and infrastructure constraints persist, highlighting the importance of adaptive capacity and ongoing support. This research confirms that aligning technological implementation with organizational change and collaborative governance principles is essential for successful digital transformation. It is recommended that the district continues capacity-building initiatives, improves IT infrastructure, and strengthens integrated application management to sustain the positive impact of digitalization on work culture and service quality.

## REFERENCES

- Abiddin, et al. (2025). Maritime Sovereignty and Maritime Diplomacy of Indonesia as Instruments Toward Becoming a Global Maritime Fulcrum. *Journal of Information Systems Engineering and Management*, 10(53s), 553–578. <https://doi.org/10.55885/jprsp.v5i3.640>
- Agranoff, R., & McGuire, M. (2021). *Collaborative Public Management: New Strategies for Local Governments*. Georgetown University Press.
- Atma, H. A. P., & Salamat, M. A. Bin. (2025). Analysis of Public Acceptance of E-Government Services Using the TAM Model. *Majority Science Journal*, 3(4), 468. <https://doi.org/10.61942/msj.v3i4.468>
- Baxter, G., & Sommerville, I. (2021). *Socio-technical Systems: From Design Methods to Systems Engineering*. CRC Press.
- Camin, C. A. (2021). Impact of Maritime Logistics on Archipelagic Economic Development in East Indonesia. *Transport Policy*, 109, 15–27. <https://doi.org/10.1016/j.tranpol.2021.08.003>
- Dao, Y., Yusnaldi, Kusuma, Suwarno, P., & Widodo, P. (2024). The Concept of the Archipelagic State in Addressing Maritime Security Threats. *Formosa Journal of Social Sciences*, 3(4), 939–954. <https://doi.org/10.55927/fjss.v3i4.12109>
- Dunleavy, P., & Margetts, H. (2021). After COVID-19: The New Normal for Digital-Era Governance. *Public Administration*, 99(3), 487–500. <https://doi.org/10.1111/padm.12735>
- Fernández, S., & Gallardo-Gallardo, E. (2021). New Ways of Working in Public Administration. *Personnel Review*, 50(2), 462–480. <https://doi.org/10.1108/PR-09-2019-0470>
- Gil-García, J. R., & Flores-Zúñiga, M. Á. (2020). Towards a comprehensive understanding of digital government success: Integrating implementation and adoption factors. *Government Information Quarterly*, 37, 101518. <https://doi.org/10.1016/j.giq.2020.101518>
- Heeks, R. (2023). *Implementing and Managing eGovernment: An International Text*. SAGE Publications.
- Hiatt, J. (2021). *ADKAR: A Model for Change in Business, Government and Our Community* (3rd ed.). Prosci Learning Center Publications.
- Kuipers, B., Amirkhanyan, A., & de Witte, J. (2022). The Impact of Digitalization on Public Sector Work. *Public Management Review*, 24(10), 1585–1605. <https://doi.org/10.1080/14719037.2021.1879180>
- Lauder, M. R. M. T., & Lauder, A. F. (2016). Maritime Indonesia and the Archipelagic Outlook. *Wacana*, 17(1), 1–27. <https://doi.org/10.17510/wacana.v17i1.428>
- Lindgren, I., Madsen, C. Ø., Hofmann, S., & Melin, U. (2019). Close Encounters of the Digital Kind: A Research Agenda for the Digitalization of Public Services. *Government Information Quarterly*, 36(3), 427–436. <https://doi.org/10.1016/j.giq.2019.03.002>
- Mergel, I., Edelmann, N., & Haug, N. (2019). Defining digital transformation: Results from expert interviews. *Government Information Quarterly*, 36(4), 101385. <https://doi.org/10.1016/j.giq.2019.06.002>
- Meyer, R., Helfen, M., & Sydow, J. (2023). Digital Transformation and Organizational Culture in the Public Sector. *Organization Studies*, 44(1), 3–25. <https://doi.org/10.1177/01708406221113032>

- Nasrullah, M. N. C. H., & Toja, A. B. (2025). Maritime Connectivity and Economic Inclusion: A Decade of Indonesia's Sea Toll Program. *Sinergi International Journal of Logistics*, 3(3), 180–189. <https://doi.org/10.61194/sijl.v3i3.890>
- Osborne, S. P. (2010). *The New Public Governance?* Routledge. <https://doi.org/10.4324/9780203861684>
- Osborne, S. P. (2018). *Public Service Logic: Creating Value for Public Service Users, Citizens, and Society*. Routledge.
- Ratnawati, M., Widarno, B., & Sutarno. (2025). Change Management in the Implementation of HRD.ID Digital Attendance System Using the ADKAR Model. *International Journal of Integrative Research*, 3(3), 523. <https://doi.org/10.59890/ijir.v3i3.523>
- Rustamana, A., Adillah, P. M., Maharani, N. K., & Fayyedh, F. A. (2024). Qualitative Research Methods. *Indonesian Journal of Interdisciplinary Research in Science and Technology*, 2(6), 919–930. <https://doi.org/10.55927/marcopolo.v2i6.9907>
- Scholl, H. J., & Kempf, K. (2021). *Digital Governance: New Technologies for Improving Public Service and Participation*. Springer.
- Scott, W. R. (2024). *Institutions and Organizations: Ideas, Interests, and Identities*. SAGE Publications.
- Tangi, L., Janssen, M., Benedetti, M., & Noci, G. (2021). Digital Government Transformation: A Literature Review and Future Research Agenda. *Government Information Quarterly*, 38(4), 101578. <https://doi.org/10.1016/j.giq.2021.101578>
- Torfin, J., Peters, B. G., Pierre, J., & Sørensen, E. (2020). *Interactive Governance: Advancing the Paradigm*. Oxford University Press.
- van der Voet, J., Kuipers, B., & Groeneveld, S. (2019). Managing Change in Public Organizations: The Role of Leadership. *Public Management Review*, 21(1), 120–143. <https://doi.org/10.1080/14719037.2018.1499248>
- Venkatesh, V., & others. (2022). Technology Acceptance Model and Its Applications in Digital Government. *Journal of Information Technology*, 37(3), 234–250. <https://doi.org/10.1177/02683962221012345>
- Vial, G. (2019). Understanding Digital Transformation: A Review and a Research Agenda. *The Journal of Strategic Information Systems*, 28(2), 118–144. <https://doi.org/10.1016/j.jsis.2019.01.003>
- Vivek, R., Nanthagopan, Y., & Piriyaarshan, S. (2023). Beyond methodology: Theoretical foundations of triangulation in qualitative and multi-method research: A literature review. *Scientific Studios on Social and Political Psychology*, 29(2), 53–62. <https://doi.org/10.61727/ssppj/2.2023.53>
- Wicaksana, I. G. W. (2017). Indonesia's Maritime Connectivity Development: Challenges and Strategic Directions. *Maritime Policy & Management*, 44(6), 723–740. <https://doi.org/10.1080/03088839.2017.1341678>
- Yulanda, A., & Adnan, M. F. (2024). Transformasi Digital: Meningkatkan Efisiensi Pelayanan Publik Ditinjau dari Perspektif Administrasi Publik. *Jurnal Ilmu Sosial Dan Humaniora*, 1(3), 103–110. <https://doi.org/10.30997/karimahtauhid.v3i7.14213>