

MEMBANGUN ORGANISASI PUBLIK YANG TANGGUH MELALUI INOVASI TEKNOLOGI DALAM LAYANAN MASYARAKAT DI INDONESIA

BUILDING RESILIENCE PUBLIC ORGANIZATIONS THROUGH TECHNOLOGICAL INNOVATION IN PUBLIC SERVICES IN INDONESIA

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ABSTRACT

In today's digital era, technological innovation has become a key pillar in enhancing the effectiveness and resilience of public organizations. This study aims to analyze how technological innovation contributes to building resilient public organizations in Indonesia, particularly in the realm of public service delivery. A descriptive qualitative approach was employed, utilizing in-depth interviews and document analysis in government institutions implementing the Electronic-Based Government System (SPBE). The findings reveal that technological innovation improves service efficiency, accelerates administrative processes, and strengthens organizational capacity in responding to change and crisis. However, infrastructure disparities, low digital literacy, and resistance to change remain significant challenges that must be addressed to achieve sustainable organizational resilience.

Keywords: *Organization Resilience, Technology, Public services.*

ABSTRAK

Di era digital saat ini, inovasi teknologi telah menjadi salah satu pilar utama dalam meningkatkan efektivitas dan ketahanan organisasi publik. Penelitian ini bertujuan untuk menganalisis bagaimana inovasi teknologi berkontribusi dalam membangun resiliensi organisasi publik di Indonesia, khususnya dalam konteks pelayanan publik. Penelitian ini menggunakan pendekatan kualitatif deskriptif dengan metode pengumpulan data melalui wawancara mendalam dan studi dokumentasi pada instansi pemerintah yang menerapkan Sistem Pemerintahan Berbasis Elektronik (SPBE). Hasil penelitian menunjukkan bahwa inovasi teknologi mampu mempercepat proses pelayanan, meningkatkan efisiensi, serta memperkuat kapasitas organisasi dalam menghadapi perubahan dan krisis. Namun demikian, ketimpangan infrastruktur, rendahnya literasi digital, serta resistensi terhadap perubahan menjadi tantangan yang perlu segera diatasi untuk mencapai resiliensi organisasi yang berkelanjutan.

Kata kunci: Ketahanan Organisasi, teknologi, Pelayanan Publik

INTRODUCTION

In the era of rapid digital transformation, public organizations are under increasing pressure to adapt and innovate in delivering services to citizens. The integration of technology into public service delivery has become not only a necessity but also a strategic

instrument for achieving organizational resilience (Bel & Esteve, 2022; Virtanen et al., 2018; Viterouli et al., 2024). Resilient public organizations are those that can absorb shocks, adapt to changing circumstances, and continue delivering essential services effectively and efficiently (Salam et al., 2024; Suprpto et

al., 2023; Tukamuhabwa et al., 2023) the quality and quantity of human resources, and the development of human resources to face changes both the internal and external environments begin with building nurses' commitment to various indicators of human resources development in hospitals that have an impact on customer or patient satisfaction. Quantitative research with an analytical observational approach was conducted in hospitals, with a sample of 136 nurses from the population obtained by probability sampling. The results of the statistical test that training is the human resources development factor that most affect the job satisfaction of nurses in hospitals with an Exp (B. In Indonesia, the acceleration of digital governance, marked by initiatives such as the Sistem Pemerintahan Berbasis Elektronik (SPBE), reflects a growing commitment to improve public service quality through technological innovation.

However, despite these advancements, many public institutions in Indonesia still face challenges in aligning digital innovation with organizational resilience. Prior studies have primarily focused on technological adoption and e-government implementation (Ashaye & Irani, 2019; Chong et al., 2016; Maulana et al., 2019; Nugroho, 2017), with limited exploration on how such innovations contribute to the broader capacity of public organizations to remain resilient amid external shocks—such as pandemics, socio-political crises, and budgetary constraints. This creates a research gap concerning the strategic role of digital innovation not just as a tool for efficiency, but as a driver of organizational adaptability and sustainability.

The urgency of this research lies in the increasing frequency of disruptions affecting public administration globally. In the Indonesian context, the COVID-19 pandemic has highlighted the need for robust and adaptable public service mechanisms supported by digital tools (Arayankalam et al., 2020;

Awotwi & Amega-Selorm, 2015) and grounding our discussion on three theoretical perspectives, namely, (1. Without building organizational resilience, technological advancements may remain superficial, failing to ensure long-term continuity and responsiveness of public services.

Therefore, this study aims to examine the role of technological innovation in fostering resilience within public organizations in Indonesia. It seeks to analyze how digital transformation initiatives are being integrated into the structures and cultures of public institutions, and to what extent these efforts contribute to their ability to withstand and recover from challenges while maintaining effective service delivery.

METHOD

This study employed a qualitative descriptive research design to explore how technological innovations contribute to building resilient public organizations in Indonesia. The primary method of data collection was in-depth interviews, supported by document analysis of relevant policy documents, strategic plans, and official reports from government agencies.

To address the research problem, the study targeted key informants including public officials, IT division personnel, and policy implementers from selected government institutions that have adopted digital public service innovations, such as the Sistem Pemerintahan Berbasis Elektronik (SPBE). A purposive sampling technique was used to ensure the inclusion of informants with substantial knowledge and involvement in technological innovation initiatives.

Interviews were conducted using a semi-structured format, allowing flexibility while ensuring that key themes—such as innovation adoption, organizational adaptability, and crisis response—were thoroughly explored. All interviews were audio-recorded with the consent of participants and later transcribed

for analysis.

The data were analyzed using thematic analysis, identifying recurring patterns and themes related to the integration of technology and the development of organizational resilience. NVivo software was employed to assist in coding and organizing data, ensuring a systematic analytical process. This approach aligns with previous research on digital governance and organizational change (Crusoe et al., 2024), but focuses more specifically on the intersection between innovation and institutional adaptability in the Indonesian public sector.

RESULT AND DISCUSSION

The findings of this study reveal that technological innovation plays a significant role in enhancing the resilience of public organizations in Indonesia, particularly in their ability to maintain service continuity during crises and adapt to rapid changes in the public sector landscape. Several government institutions that have implemented digital service platforms, such as online licensing systems, digital civil registration, and e-budgeting tools, reported improved efficiency, faster service delivery, and enhanced accountability. These innovations not only streamlined bureaucratic processes but also enabled institutions to remain operational during disruptions such as the COVID-19 pandemic.

Moreover, the study found that organizational resilience was closely tied to the institution's ability to integrate technology into their daily work culture and decision-making structures. Agencies that provided regular digital literacy training and encouraged innovation at all levels showed higher adaptability and employee engagement in facing service challenges. However, the research also identified gaps in infrastructure, especially in rural or underfunded regions, where limited internet access and lack of skilled personnel hindered optimal technology utilization.

Importantly, leadership commitment and inter-agency collaboration emerged as key drivers in sustaining technological innovation for long-term resilience. Institutions with supportive leadership and cross-sector partnerships (e.g., with tech providers or universities) were better positioned to anticipate risks, respond to service demands quickly, and innovate continuously. Despite these advancements, challenges such as resistance to change, lack of standardized digital frameworks, and data security concerns remain critical barriers to achieving full organizational resilience through technology.

Discussion

The results of this study affirm that technological innovation is a critical enabler for building organizational resilience in the public sector. The integration of digital tools in service delivery not only improves efficiency but also equips institutions with the capacity to adapt swiftly to emerging challenges. This finding aligns with Yan et al. (2021) physician consultations, mental health counseling services, who argue that resilience in public institutions is closely associated with their ability to anticipate, absorb, and recover from disruptive events through adaptive systems and innovation.

In the Indonesian context, the implementation of the Sistem Pemerintahan Berbasis Elektronik (SPBE) serves as a strategic policy to institutionalize digital transformation across government agencies. However, the study highlights that the mere adoption of technology is insufficient. Organizational culture, leadership, and internal capacity play an equally crucial role in determining whether these technologies translate into long-term resilience (Profiroiu et al., 2024; Ragazou et al., 2022; Salam et al., 2024; Van Kranenburg et al., 2023) we describe the landscape that has led to the realization from the nineties of the last century

that cyber is a social good: ‘Cyber is a social good,’ said Cybersecurity and Infrastructure Security Agency Director Jen Easterly. ‘It’s about societal resilience. And my last message (at CES 2023. Institutions that foster a learning culture, support innovation at all levels, and continuously invest in digital literacy are more likely to sustain adaptive capacity.

Despite these positive developments, the research identifies significant disparities in technological infrastructure and human resources, particularly in remote and under-resourced regions. This digital divide remains a barrier to equitable service delivery and resilience-building (Anckar, 2016; Farid et al., 2023; Trieu et al., 2023) recovery strategies that emphasise attributes and skills are essential for an enterprise to recover and adapt to disruptions. Based on the resource-based view (RBV. Limited internet access, lack of skilled IT personnel, and resistance to change among senior bureaucrats contribute to uneven implementation outcomes across regions.

Moreover, the role of leadership emerged as a central theme in shaping the success of digital initiatives. Leaders who demonstrate commitment to digital governance tend to foster inter-agency collaboration, allocate sufficient resources, and create an environment conducive to innovation (Korneeva, 2023). This is in line with the concept of anticipatory governance, where leadership not only reacts to crises but also prepares institutions to evolve proactively.

Nevertheless, challenges related to cybersecurity, data governance, and ethical considerations remain critical concerns. Public organizations must ensure that innovation is accompanied by robust regulatory frameworks to protect citizen data and maintain public trust. Without these safeguards, technological innovation may undermine rather than strengthen institutional resilience.

Overall, this study contributes to the growing body of literature on digital governance by emphasizing the interplay

between innovation and organizational resilience. It underscores the need for a holistic approach that combines technological advancement with human capital development, ethical frameworks, and structural reforms to ensure sustainable public service delivery in an increasingly complex governance environment.

CONCLUSION

Technological innovation has become a vital instrument in strengthening the resilience of public organizations in Indonesia, enabling them to maintain service continuity, adapt to dynamic challenges, and respond effectively during crises. However, the success of these innovations is not solely dependent on the availability of digital tools, but also on organizational culture, leadership commitment, infrastructure readiness, and human resource capacity. While initiatives like SPBE have laid a strong foundation for digital transformation, gaps in implementation—particularly in under-resourced regions—highlight the need for inclusive and strategic approaches. Strengthening digital literacy, ensuring equitable access to technology, and embedding innovation into the core of organizational strategy are essential steps toward building truly resilient and future-ready public institutions.

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