

The Urgency of Improving Public Services in the Digital Era through Electronic-Based Government Systems

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Abstract

This research examines the implementation of public policies with the objective of improving public administration services in the digital era. The application of digital technology offers the government the potential to deliver services that are more efficient, accessible, transparent, and participatory. Nevertheless, the implementation of public policies encounters obstacles, including the digital divide, resistance to change, budgetary constraints, and data security concerns. This study examines the factors that facilitate or impede the implementation of policies and formulates strategies and recommendations to optimize public administration services in the digital era. The results demonstrate that the implementation of strategies, including the expansion of human resources, the development of information and communication technology infrastructure, the streamlining of service processes, the formation of collaborative partnerships with stakeholders, and the formulation of responsive and adaptive policies, can facilitate the positive transformation of public administration services in the digital era. This transformation can be evidenced by enhanced efficiency, accessibility, transparency, community participation, and community satisfaction.

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INTRODUCTION

The efficiency and effectiveness of public services are indispensable elements in the attainment of good governance, as they mirror the government's capacity to fulfill societal necessities and guarantee citizen satisfaction (Ghimire, 2018; Laitinen et al., 2018; Pedrosa et al., 2020; Selepe, 2022). It is evident that administrative services play a pivotal role in the delivery of these benefits, whether directly through public-facing interactions or indirectly by fostering an environment conducive to development (Compton, 2021). In the digital era, the integration of information and communication technology (ICT) has transformed the landscape of public administration, streamlining processes, enhancing transparency, and promoting broader societal participation (Bouaziz, 2019). Those countries that have embraced digital transformation, such as the Scandinavian nations, demonstrate the potential of well-executed digital public services to elevate governance standards and societal trust.

Notwithstanding the apparent advantages of integrating digital solutions into public administration, a considerable number of governments still encounter significant challenges (Chen, 2017). The persistence of bureaucratic inefficiencies, limited access to technology in remote areas, and inadequate transparency represent significant obstacles to the realization of optimal service delivery (Kosec & Wantchekon, 2020). Moreover, the accelerated advancement of digital technologies frequently outpaces the formulation of

corresponding policies, resulting in deficiencies in implementation and concerns regarding security (Henderson, 2020). These challenges are further compounded by the public demand for faster, more accessible, and more accountable services, which current bureaucratic models often struggle to address effectively (Demir, 2022). The discrepancy between the technological capabilities and the governmental readiness highlights the necessity for targeted research and solutions.

While numerous studies have explored the benefits of ICT in public administration, there is a paucity of comprehensive analyses that address the interplay between technological advancements and policy implementation challenges in diverse socio-economic contexts (Asquer, 2015; Canedo et al., 2022; Matteucci et al., 2023). The majority of existing literature concentrates on successful case studies from developed nations, such as e-government systems in Scandinavia (Ogunsola & Olojo, 2020). However, this research does not sufficiently address the challenges encountered by developing countries with limited resources and significant digital divides. Moreover, research frequently neglects to consider the influence of cultural and institutional resistance to change, which can markedly affect the uptake of digital solutions in public administration.

To address these gaps, this study proposes a comprehensive examination of policy frameworks and strategies that facilitate the implementation of digital public administration services. The objective of this study is to identify the key success factors and obstacles associated with the implementation of digital public administration services (Wyrteki et al., 2024). The findings will provide actionable recommendations for governments seeking to optimize their use of technology in service delivery. To this end, solutions such as capacity building for human resources, infrastructural improvements, and adaptive policy mechanisms will be explored with a view to ensuring the inclusive and effective adoption of digital technologies. The objective of these measures is to achieve a balance between the rapid advancement of technology and the assurance of equitable access, as well as the implementation of robust security protocols.

The impetus for this study arises from the mounting societal demand for enhanced public services in the digital age. In light of these developments, citizens are more informed and critical, seeking governance that aligns with their rising expectations of efficiency, transparency, and accessibility. Furthermore, the transformative potential of digital technologies presents an unprecedented opportunity for governments to address deficiencies in service delivery. It is of the utmost importance to gain insight into how to successfully navigate challenges such as resource constraints and resistance to change in order to fully realise this potential. This has led to an in-depth investigation into effective digital governance strategies.

The objective of this study is to examine the potential of digital technologies to improve the delivery of public services. The specific objectives of this study are threefold: firstly, to analyse the factors that enable and hinder the adoption of digital technologies in public services; secondly, to examine case studies of successful implementations; and thirdly, to formulate actionable recommendations to improve policy frameworks. In this

way, the study aims to provide a roadmap for governments to leverage technology in fostering citizen satisfaction, economic competitiveness, and transparent governance.

RESEARCH METHOD

This research uses a qualitative approach with a library research method (Salazar, 2019), to obtain an in-depth and holistic understanding of the implementation of public policies in improving public administration services in the digital era. The secondary data used in this study were obtained from various library sources, such as textbooks, scholarly journals, policy documents, laws and regulations, reports from government agencies or non-governmental organizations, and articles from mass media and official websites of the government or related organizations (Bookstaver, 2021; Cole et al., 2018; Ellram & Tate, 2016; Johnson & Sylvia, 2023; Renbarger et al., 2019). Data collection techniques were carried out by searching and inventorying literature sources relevant to the research topic, reading, studying and critically analyzing these sources, as well as making important notes and grouping data based on predetermined themes.

The data obtained was then analyzed using the content analysis method, which involves several important steps. These steps include data reduction, which is the process of sorting and selecting data that are relevant to the research topic, data presentation in the form of narrative text or systematic charts, and drawing and testing conclusions based on the analysis conducted (Khoei & Singh, 2024). Data reduction ensures that only relevant data is analyzed further. Data presentation helps organize information so that it is easier to understand and analyze. Inference is done by interpreting the processed data and drawing valid conclusions based on the existing findings.

To ensure the validity of the data, this research uses data source triangulation techniques by comparing and confirming data from different literature sources. This triangulation is important to ensure that the data used is truly accurate and reliable. With this literature review method, it is hoped that this research can provide a comprehensive picture of the implementation of public policies in improving public administration services in the digital era, as well as identify the factors that influence it based on an in-depth literature review. This approach allows researchers to dig up relevant information and build a deeper understanding of the topic under study, so that the research results can make a significant contribution to the development of public policy.

RESULTS AND DISCUSSION

Efficiency and Effectiveness of Public Administration Services in the Digital Age

The application of digital technology to public administration services has resulted in notable improvements in the efficiency and effectiveness of a range of government services (Latupeirissa et al., 2024). The advent of digital technology has enabled the automation of numerous administrative processes that were previously conducted manually. This has resulted in a reduction in completion time and operational costs. A case in point is the introduction of an online licensing system (e-licensing) in Indonesia, which has significantly reduced the time required for licensing procedures from several months to just a matter of days, or even hours (Budhyatma et al., 2022). This not only

saves time for the public, but also reduces the administrative burden for government agencies, allowing them to direct their attention to other strategic tasks.

Furthermore, the integration of information systems between government agencies has resulted in notable advancements in terms of coordination. Information that was previously dispersed across disparate offices can now be accessed and exchanged expeditiously through a unified system. To illustrate, the integration of tax and population data enables individuals to complete essential documentation without the necessity of visiting numerous service offices. This step not only enhances public convenience but also mitigates the risk of data duplication and administrative errors. Nevertheless, the challenge of integrating disparate information systems persists as an obstacle. A considerable number of agencies employ disparate systems that are incompatible with one another, impeding the seamless coordination of operations (Mandrick & Smith, 2022).

To surmount these impediments, it is imperative to invest in ICT infrastructure. An adequate ICT infrastructure comprises contemporary hardware and software, dependable internet networks, and secure and integrated data centers. It is imperative that the government guarantee the accessibility of this infrastructure, particularly in remote regions that frequently lag in technological advancement. The government can facilitate the integration of digital technology-based services for the entire community by ensuring the availability of high-quality internet networks and appropriate devices.

It is insufficient to develop infrastructure in isolation; it must be accompanied by efficient budget allocation and a well-thought-out implementation strategy. It is imperative that the government devise a transparent and comprehensive plan to ensure the optimal utilization of public funds in the development of an integrated service system. Furthermore, inter-ministerial collaboration between government departments and other stakeholders is essential to align objectives and guarantee system interoperability. This will prevent the implementation of redundant projects and ensure that each effort yields the greatest benefit to the community.

The findings of this study indicate that the transition of public administration services to a digital environment has a tangible positive effect on efficiency and effectiveness. Nevertheless, challenges such as interoperability between systems and infrastructure gaps still require significant attention. With a robust commitment from the government, whether through budget allocation, infrastructure development, or human resource capacity building, public administration services can continue to evolve to become more efficient, cost-effective, and accessible, while becoming a robust foundation for modern and inclusive governance.

Transparency, Accessibility, and Public Participation through Digital Technology

The implementation of digital technology has resulted in significant alterations to public accessibility to public administration services (Amelin et al., 2023). The advent of online and mobile-based services has enabled individuals to access government services irrespective of geographical location or operating time. To illustrate, the Higher Education Database (PDDikti) permits the public to freely access information pertaining to higher education data in Indonesia (Astuti et al., 2024). This system facilitates not only

the monitoring of quality in higher education but also the transparency necessary to enhance public trust in the government.

In addition to enhancing accessibility, digital technology facilitates transparency in public services through the dissemination of information. The public can observe the service process directly, provide feedback, and submit complaints via a variety of applications or digital portals. Such transparency enhances governmental accountability and creates opportunities for public engagement. One such example is the e-musrenbang system, which permits the public to submit proposals and input related to regional development via an electronic medium. This system facilitates a more participatory, aspirational, and transparent development planning process.

Nevertheless, despite the numerous advantages offered by digital technology, the issue of the digital divide continues to represent a substantial obstacle. Not all communities have equal access to digital technology. Those living in remote areas or with economic limitations may lack adequate internet networks or digital devices. This inequality can impede the ability of some communities to benefit from digital-based services. Consequently, specific demographic groups are left underserved and reliant on less effective, conventional service methods.

To address this challenge, it is imperative that the government ensures the equitable provision of information technology infrastructure in all regions, including remote areas. It is imperative that investments be made in the construction of reliable internet networks, the provision of digital devices, and the development of technology-based service centers at the local level (Barrell & Lemmens, 2015). Moreover, the government must provide training and education for communities to enhance their digital literacy. This approach will not only enhance the accessibility of services but also facilitate the optimal utilisation of digital technology within the community.

The findings of this study demonstrate that digital technology has the potential to enhance accessibility, transparency, and community engagement in public services. Nevertheless, efforts to bridge the digital divide should be a primary objective to guarantee the inclusiveness of services. By adopting a comprehensive and inclusive approach, the government can establish a service system that is not only modern and efficient but also accessible to all levels of society, thereby achieving equity in public administration services.

Strategies for Optimizing Public Administration Services in the Digital Era

The successful implementation of digital-based public administration services is contingent upon the strategies implemented by the government, particularly in the management of human resources (HR). The availability of competent human resources is a significant determinant of the long-term viability and efficacy of technology-based services. It is essential that government employees possess a combination of technical and non-technical skills. The former should include proficiency in information system operation, data analysis, and cybersecurity, while the latter should encompass effective communication and a commitment to service excellence (Zhu et al., 2021). To this end, it is imperative that regular, pertinent training be made available. Moreover, collaboration with educational institutions and the private sector can facilitate the process of HR

capacity building, for instance, through specialized certification programs or training tailored to specific needs.

The next crucial step is the streamlining of service processes and procedures. The advent of digital technology has opened the door to the automation of numerous administrative processes that were previously fraught with complexity and time constraints. The initial step in this process is to map the workflow in detail in order to identify stages that can be eliminated or automated. For example, the implementation of an online licensing system can replace convoluted manual processes with shorter and more transparent workflows (Matthies, 2020). Furthermore, the government must establish transparent and consistent standard operating procedures (SOPs) to ensure the provision of uniform guidance across digital public services. Moreover, socialization and education related to new procedures must be carried out so that the public and employees can adjust to the changes.

Furthermore, policy development that is responsive to technological developments represents a crucial aspect of the strategy to optimize public services in the digital era. The implementation of flexible policies enables the government to adopt new technologies, including artificial intelligence (AI), big data analytics, and blockchain. Artificial intelligence (AI) can be employed to provide services that are tailored to the specific requirements of everyone, while big data analytics enables the government to identify patterns in people's needs, thus facilitating the design of more relevant services. Concurrently, blockchain technology has the potential to enhance data security and mitigate the risk of information leakage, which represents a significant challenge in the digital age. Consequently, it is incumbent upon governments to be proactive in evaluating and updating policies to remain relevant and to support innovation.

It is essential to collaborate with relevant stakeholders to guarantee the effective implementation of digital public policies. The government can engage with the private sector, academia, non-governmental organizations, and civil society to develop innovative solutions that address societal needs. Such collaboration facilitates the sharing of resources and expertise, thereby enhancing public trust in the implemented policies. For example, the involvement of nongovernmental organizations in the design of digital services can facilitate a more inclusive perspective and ensure that the needs of marginalized groups are accommodated (Pajula et al., 2024).

The findings of this study indicate that the success of public administration services in the digital age necessitates a comprehensive and targeted approach. It is essential to reinforce the following elements: human resource capacity building, simplified procedures, adaptive policies, and cross-sector collaboration. By adopting this comprehensive approach, the government will be able to enhance service quality and establish a system that is inclusive, efficient, and responsive to the evolving needs of society. This strategy will ensure that digital public services become a fundamental component of modern governance in the future.

CONCLUSION

The findings of this research demonstrate that the utilisation of digital technology has the potential to enhance the quality of public administration services. The application of digital technology offers the government the potential to streamline service processes, enhance accessibility, promote transparency and efficiency, and facilitate public participation in decision-making. The implementation of policy through the use of digital technology also facilitates the automation of various administrative processes, accelerates the time required to provide services, and reduces operational costs. The findings substantiate the assertion that digital transformation represents a strategic initiative for the creation of a more modern and responsive system of governance.

Nevertheless, the research also identifies the challenges associated with the implementation of digital-based public policies. The digital divide persists as a significant impediment, particularly for communities in remote regions with constrained access to technological resources. Furthermore, resistance to change, both from government employees and the public, presents a significant obstacle to the widespread adoption of technology. Furthermore, budgetary limitations and data security concerns have the potential to impact the efficacy of policy implementation. This research underscores the necessity for a comprehensive strategy to address these challenges, which should include enhanced human resource competencies, the development of improved ICT infrastructure, and the implementation of adaptive policies that can respond to technological developments.

The implementation of optimal policies has the potential to bring about significant positive impacts with regard to public administration services in the digital era. Improved efficiency and effectiveness of services, wider accessibility, greater transparency, and more active public participation are some of the key benefits that can be achieved. Furthermore, people who are satisfied with public services tend to have higher trust in the government, which in turn strengthens good governance. This research provides guidance for the government to formulate strategic measures to ensure the success of digital transformation in public administration services.

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