E-Government and Artificial Intelligence: New Directions in the Transformation of Public Services in Azerbaijan

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Abstract

This article examines the role of e-government and artificial intelligence in the transformation of public services in Azerbaijan and explores future development prospects. The study analyzes key digital initiatives implemented within the framework of the "Digital Azerbaijan 2030" strategy, including the myGov platform, ASAN Service, and the activities of DOST centers. Descriptive-statistical analysis and international comparative methods are employed, comparing Azerbaijan's position in the field of digital public services with the experiences of leading countries such as Estonia, Singapore, and the United Arab Emirates. The results show that the application of e-government and artificial intelligence significantly reduces the time required for delivering public services, increases transparency, and improves the efficiency of resource utilization. At the same time, challenges related to data security, legal regulation, and ethical governance remain. The article concludes with recommendations to expand electronic signature and digital identification systems, implement artificial intelligence in a phased manner, and strengthen legal and ethical frameworks based on international best practices.

Introduction

The rapid advancement of digital technologies has fundamentally reshaped public administration and the delivery of public services worldwide. Governments increasingly rely on information and communication technologies (ICT) and data-driven governance models to enhance efficiency, responsiveness, and transparency.

Empirical evidence indicates that e-government systems significantly reduce service delivery time while optimizing administrative costs by approximately 20–30%, positioning e-government as a strategic governance instrument rather than merely a technological innovation.

The digitalization of public services through integrated e-government platforms reduces administrative burden, enables centralized data management, and supports more informed decision-making. International experience suggests that centralized digital platforms can reduce bureaucratic procedures by up to 60–80% and substantially improve service accessibility, leading to measurable gains in institutional efficiency and public trust.

Recent advances in artificial intelligence (AI) have further expanded the capabilities of e-government systems. AI-based solutions enhance public service quality through automated decision-making, large-scale data analysis, and predictive modeling. Global studies show that AI applications can increase the speed of processing public service requests by three to ten times while achieving decision accuracy levels of 85–95%, prompting governments to increasingly view AI as a strategic tool in public administration.

Azerbaijan has aligned with these global trends by prioritizing e-government development under the "Digital Azerbaijan 2030" strategy. Initiatives such as the myGov platform, ASAN Service, and DOST centers have modernized public service delivery, reduced service times from days to minutes, and achieved citizen satisfaction levels of approximately 95–98%. However, the integration of artificial intelligence remains largely limited to pilot and fragmented applications, underscoring the need for a more systematic implementation framework.

At the same time, AI deployment in public services raises legal, ethical, and institutional challenges, including data protection, algorithmic bias, and the transparency of automated decisions. International evidence indicates that weak accountability mechanisms can reduce public trust by 10–15%, highlighting the importance of comprehensive governance frameworks.

Against this background, this article examines the role of e-government and artificial intelligence in transforming public services in Azerbaijan through empirical indicators and comparative analysis. The study assesses the effectiveness of existing digital initiatives and identifies future development prospects based on international best practices, contributing to policy-relevant discussions on citizen-oriented digital governance.

Literature Review

The application of e-government and artificial intelligence (AI) in public administration has attracted increasing scholarly attention over the past two decades, driven by the rapid advancement of digital technologies and data-driven governance models. Digital transformation has fundamentally altered the delivery of public services, encouraging a shift away from rigid bureaucratic structures toward more adaptive, citizen-centric, and efficiency-oriented governance frameworks. Within the academic literature, e-government is commonly conceptualized as the use of information and communication technologies by public institutions to deliver services digitally and facilitate citizen access through online platforms (Heeks, 2006; OECD, 2023).

Extensive empirical research demonstrates that e-government initiatives contribute to improved service accessibility, reduced administrative costs, accelerated service delivery, and enhanced transparency in public administration (Janssen & Helbig, 2018; Scholl, 2017). By simplifying interactions between citizens and government agencies and reducing processing times, digital public services enable more efficient allocation of public resources. Consequently, e-government is widely regarded not merely as a technological innovation but as a core instrument of institutional and governance transformation.

The rapid development of artificial intelligence technologies has further expanded the functional scope of e-government systems. Scholars highlight AI's capacity to analyze large-scale datasets, support predictive analytics, automate decision-making processes, and enhance the responsiveness of public services (Davenport & Ronanki, 2018; Bughin et al., 2018). The deployment of chatbots, virtual assistants, and intelligent analytical tools enables continuous (24/7) service provision and contributes to higher levels of citizen satisfaction (Chen et al., 2021). These capabilities position AI as a strategic enabler of more proactive and personalized public service delivery.

Despite these benefits, the literature also emphasizes the significant risks and limitations associated with AI adoption in the public sector. Concerns related to data protection, algorithmic bias, transparency of automated decision-making, and legal accountability remain central challenges (Crawford & Calo, 2016; Floridi et al., 2018). In response, a growing body of research underscores the necessity of embedding AI systems within robust ethical guidelines, clear legal frameworks, and effective

institutional oversight mechanisms to ensure responsible and trustworthy governance.

Comparative studies on international best practices indicate that the successful integration of e-government and AI depends largely on the availability of advanced digital infrastructure, comprehensive regulatory frameworks, and high levels of digital literacy among citizens (OECD, 2023; UN, 2024). Countries such as Estonia, Singapore, and the United Arab Emirates are frequently cited as leading examples, having achieved substantial efficiency gains in public administration through the systematic implementation of digital identification, electronic signatures, and AI-based public services (Kattel et al., 2019). Notably, these initiatives are supported by well-defined legal and ethical frameworks that reinforce public trust.

In the context of Azerbaijan, existing academic and policy-oriented literature suggests notable progress in the development of e-government services. Digital initiatives such as ASAN Service and the myGov platform have significantly improved access to public services, reduced administrative barriers, and enhanced service quality. However, prior studies also indicate that the large-scale and systematic integration of AI into public services remains at an early stage, pointing to a gap in both empirical evidence and comprehensive analytical research.

Overall, while the literature confirms the transformative potential of e-government and artificial intelligence in public administration, there remains a shortage of in-depth, comparative studies addressing their effectiveness, associated risks, and governance mechanisms within the Azerbaijani context. This article seeks to address this gap by combining empirical analysis with international comparison, thereby contributing to a more nuanced understanding of digital public service transformation and offering evidence-based policy recommendations for Azerbaijan.

Methodology

This study employs a mixed-methods research design to assess the role of e-government and artificial intelligence in the transformation of public service delivery in Azerbaijan. The methodological framework primarily relies on descriptive and comparative analysis, incorporating a systematic review of statistical data, official reports, and relevant academic literature. This approach enables a comprehensive evaluation of both the quantitative performance indicators and the qualitative institutional dimensions of digital public services.

The data used in the study were collected from both international and national sources. At the international level, key sources include the United Nations E-Government Development Index (EGDI), reports on digital governance published by the OECD and the World Bank, as well as peer-reviewed academic publications addressing e-government and artificial intelligence. At the national level, the empirical basis of the study is formed by official documents and statistical indicators related to the "Digital Azerbaijan 2030" strategy, ASAN Service, the myGov platform, and DOST centers.

Descriptive statistical analysis is applied to examine key indicators of digital public service performance, including service coverage, user numbers, service delivery time, and levels of citizen satisfaction. These indicators provide insight into the effectiveness and efficiency of e-government initiatives in Azerbaijan. In addition, a comparative analysis approach is used to position Azerbaijan's digital public services within an international context by comparing them with the experiences of leading countries such as Estonia, Singapore, and the United Arab Emirates. The comparison focuses on core dimensions including digital identification systems, electronic signatures, the extent of AI-based service implementation, and institutional governance models.

Furthermore, qualitative analysis is conducted to evaluate legal, ethical, and institutional frameworks relevant to the integration of artificial intelligence into public services. This includes an assessment of regulatory documents, policy strategies, and governance guidelines in order to identify potential risks and challenges associated with AI adoption, such as data protection concerns, algorithmic bias, and accountability issues. International standards and policy recommendations, particularly those developed by the OECD and the United Nations in the field of digital governance, serve as key reference points in this analysis.

The study has certain limitations. A portion of the data is derived from official statistics and publicly available sources, while the limited availability of detailed micro-level data on artificial intelligence applications constrains the scope for advanced empirical modeling. Nevertheless, the chosen methodological approach is

well aligned with the research objectives and allows for the development of a comprehensive overview of the impact of e-government and artificial intelligence on public service transformation in Azerbaijan.

E-Government and Artificial Intelligence: Conceptual Framework

E-government refers to the use of information and communication technologies in public administration to deliver services digitally and to optimize interactions between government and citizens, businesses, public institutions, and employees. In academic literature, e-government is viewed not merely as a technological upgrade but as a model of institutional transformation aimed at improving service accessibility, reducing bureaucratic barriers, and enhancing transparency.

The e-government framework is commonly structured around four interaction models—G2C, G2B, G2G, and G2E—which enable more coordinated, efficient, and flexible public service delivery. Digital platforms reduce dependence on physical service points and provide continuous (24/7) access to services, thereby lowering administrative burden and increasing citizen satisfaction.

Artificial intelligence significantly expands the functional capacity of e-government systems by enabling automated data processing, predictive analytics, and decision-support mechanisms. Through technologies

such as machine learning, natural language processing, and big data analytics, AI supports faster application processing, proactive risk identification, and more efficient resource allocation.

Conceptually, the integration of artificial intelligence into e-government marks a transition toward a digital government model in which services become data-driven and proactive. In this model, public services can be initiated automatically based on existing data, reducing the need for citizen-initiated requests.

Effective integration of e-government and artificial intelligence requires both technological and institutional transformation, including robust digital infrastructure, interoperable data systems, appropriate legal frameworks, and enhanced digital competencies within the public sector. Ethical principles—such as transparency, accountability, fairness, data protection, and the explainability of automated decisions—form a critical foundation for the sustainable and responsible use of AI in public administration.

Overall, the synthesis of e-government and artificial intelligence represents a new stage in public administration, enabling public services to become more efficient, transparent, and citizen-oriented. The key elements of this conceptual relationship are summarized in **Table 1**.

Table 1. Conceptual Framework of E-Government and Artificial Intelligence Integration

Dimension	E-Government Role	Artificial Intelligence Role	Expected Outcomes
Service Delivery	Digitalization of public services (G2C, G2B, G2G, G2E)	Automation and personalization of services	Faster service provision, higher accessibility
Data Management	Centralized digital databases	Big data analytics and pattern recognition	Evidence-based decision-making
Decision-Making	Rule-based administrative processes	Predictive and automated decision support	Improved accuracy and efficiency
Governance	Transparency and accountability mechanisms	Risk detection and performance monitoring	Enhanced public trust
Institutional Capacity	Process standardization	Intelligent resource allocation	Reduced administrative costs
Ethics & Law	Regulatory compliance	Algorithmic fairness and explainability	Responsible and sustainable AI use

Note:

This table summarizes the key conceptual dimensions of e-government and artificial intelligence integration in public administration, highlighting their respective roles and expected outcomes in the transformation of public service delivery.

Building on the theoretical discussion of e-government and artificial intelligence, a conceptual framework is developed to illustrate how digital platforms and AI-enabled processes transform public service delivery and governance outcomes. This framework highlights the central role of administrative and decision-making processes in linking technological foundations with service outcomes and public trust.

Figure 1. Conceptual Framework of E-Government and Artificial Intelligence Integration in Public Service Delivery
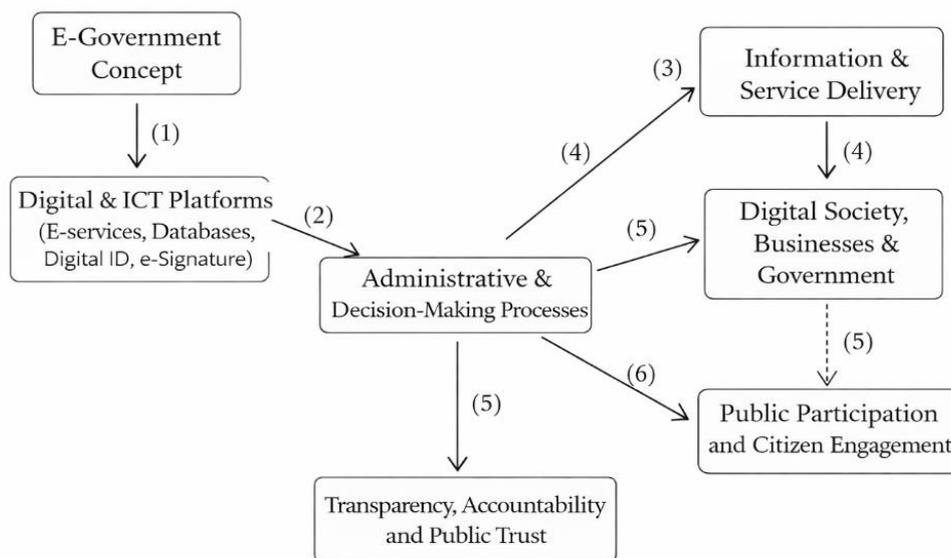

Figure 1 illustrates the conceptual framework of e-government and artificial intelligence integration in public service delivery. The framework depicts the sequential and interactive relationships between the e-government concept, digital and ICT platforms, and AI-enabled administrative and decision-making processes. It demonstrates how these processes collectively lead to improved information and service delivery, enhanced interaction among citizens, businesses, and government institutions, increased public participation, and higher levels of transparency, accountability, and public trust. The figure emphasizes the role of artificial intelligence as an enabling mechanism embedded within administrative processes rather than as a standalone component.

Azerbaijan's Experience and the "Digital Azerbaijan 2030" Strategy

Over the past decade, the development of e-government and digital public services has become a central priority of public policy in the Republic of Azerbaijan. This strategic orientation is formalized within the "Digital Azerbaijan 2030" strategy, which aims to ensure a systematic digital transformation of public administration, improve the quality of public services, and modernize state–citizen relations. The strategy identifies the adoption of digital technologies, data-driven decision-making, and the gradual integration of artificial intelligence as key pillars of governance reform.

Empirical evidence indicates that Azerbaijan has achieved notable progress in the field of e-government. The myGov platform functions as a unified access point for electronic public services, enabling centralized and integrated service delivery across government institutions. The number of registered users exceeding two million, alongside a steadily growing active user base, reflects substantial citizen demand for digital public services. Moreover, the availability of more than 400 services on the platform signals an increasing level of digital interoperability and coordination among public agencies.

The ASAN Service model represents a successful example of institutional innovation in the provision of public services. Statistical indicators demonstrate that service delivery times at ASAN Service centers have been reduced several times compared to traditional administrative models, while citizen satisfaction levels remain consistently high. The completion of the majority of services within less than 15 minutes and satisfaction rates exceeding 98% provide empirical evidence of the effectiveness of combined digital and organizational optimization. These outcomes confirm that e-government in Azerbaijan functions not only as a technological solution but also as an effective governance model.

In the area of social services, DOST centers strengthen the socially oriented dimension of digital transformation. Available data suggests that the DOST model has significantly reduced processing times for social service applications and improved service accessibility. The growing number of services provided, and the increasing annual volume of applications indicate rising public trust in digital government mechanisms, particularly in socially sensitive domains.

Within the technological dimension of the "Digital Azerbaijan 2030" strategy, artificial intelligence occupies a prominent position. AI-based solutions such as automated document processing, preliminary classification of applications, and analytical forecasting possess the potential to enhance both the speed and accuracy of public service delivery. However, empirical observations reveal that the integration of artificial intelligence into public services remains at an early stage, largely limited to pilot projects and narrowly scoped applications. This indicates that AI adoption in the public sector has yet to reach a systemic and large-scale level.

From a comparative international perspective, Azerbaijan's position can be characterized as moderate to high in terms of e-government development. Improvements in the E-Government Development Index (EGDI) reflect steady progress in digital governance. Nevertheless, compared to leading countries such as Estonia and Singapore, the implementation of AI-driven proactive public services remains limited. This gap suggests that the next phase of the national digital strategy should focus on strengthening the institutional, legal, and governance frameworks necessary for broader and more advanced AI integration.

Overall, Azerbaijan's achievements in the field of digital public services confirm the practical effectiveness of the "Digital Azerbaijan 2030" strategy. At the same time, the empirical analysis highlights that future priorities should include the phased integration of artificial intelligence, the expansion of proactive service delivery models, and the reinforcement of data-driven decision-making mechanisms. Advancements in these areas are expected to enable more flexible, transparent, and citizen-oriented public service provision.

International Experience and Comparative Analysis

International experience in the integration of e-government and artificial intelligence into public service delivery demonstrates diverse development models and institutional approaches. This section examines the experiences of Estonia, Singapore, and the United Arab Emirates—countries widely recognized as leading examples in digital governance—and provides a comparative assessment in relation to Azerbaijan's current level of development. These countries have been selected due to their advanced implementation of digital identification systems, electronic signatures, and AI-enabled public services.

- **Estonia**

Estonia is widely regarded as one of the most advanced countries in the field of e-government and represents a benchmark model of a fully developed digital state. Digital identification and electronic signature systems are mandatory and universally adopted by citizens, forming the backbone of public service delivery. The vast majority of government services are provided in a fully digital and automated manner, minimizing the need for physical interaction between citizens and public institutions. Empirical studies indicate that Estonia's digital government solutions have significantly reduced administrative costs and accelerated decision-making processes. Artificial intelligence applications are increasingly used in areas such as taxation, healthcare, and social services, supporting the transition toward proactive service delivery models.

- **Singapore**

Singapore presents a digital governance model built around the "Smart Nation" concept, which emphasizes the strategic use of digital technologies and artificial intelligence in public administration. Through the SingPass digital identity system, citizens gain unified access to a wide range of public and private services via

a single platform. AI-driven analytical systems are extensively employed in policy formulation, forecasting social needs, and optimizing resource allocation. This approach has transformed public services from primarily reactive mechanisms into proactive and personalized solutions. Empirical indicators confirm that digital and AI-enabled services in Singapore have contributed positively to citizen satisfaction and overall government effectiveness.

- **United Arab Emirates**

The United Arab Emirates (UAE) is characterized by a rapid development model in the adoption of e-government and artificial intelligence technologies. The implementation of centralized digital identification platforms and integrated electronic government systems has enhanced administrative flexibility and service responsiveness. In the UAE, AI-based applications are primarily utilized for automated response systems, service quality monitoring, and real-time decision support. Artificial intelligence has been formally established as a strategic priority within national policy, and its integration into the public sector has been pursued through a phased and coordinated approach.

Comparative Assessment and Implications for Azerbaijan

From a comparative perspective, Estonia, Singapore, and the UAE illustrate different yet complementary pathways toward advanced digital government. Estonia emphasizes institutional interoperability and universal digital identity, Singapore focuses on data-driven governance and personalized services, while the UAE prioritizes rapid deployment and strategic coordination of AI initiatives. Compared to these countries, Azerbaijan demonstrates solid progress in digital public service provision but remains at an earlier stage in terms of large-scale and proactive AI integration. This comparison suggests that Azerbaijan's next phase of digital transformation should prioritize strengthening institutional interoperability, expanding AI-driven proactive services, and reinforcing legal and governance frameworks to support responsible and sustainable AI adoption.

Data and Statistical Analysis

This section analyzes the level of development of e-government and digital public services in Azerbaijan based on concrete statistical indicators. The analysis relies on official data released by key digital platforms operating under the "Digital Azerbaijan 2030" strategy namely myGov, ASAN Service, and DOST centers as well as international indices and reports (Ministry of Digital Development and Transport, 2025; ASAN Service, 2024; United Nations, 2024).

Empirical Indicators of the myGov Platform

The myGov platform functions as a centralized single access point for electronic public services in Azerbaijan. According to official data, the number of registered users on the platform exceeds two million, representing approximately 20% of the country's population (Ministry of Digital Development and Transport, 2025). The number of active users is estimated at around 800,000, indicating sustained and effective demand for digital public services (EHIS, 2025).

More than 400 electronic services are currently available through the platform, reflecting an expanding level of digital integration among public institutions (myGov, 2025). Statistical data from early 2025 reveal a 61% increase in newly registered users, empirically confirming a growing citizen preference for digital channels when accessing public services (RINN, 2025).

Statistical Performance of ASAN Service

The ASAN Service model is widely recognized as one of the most successful examples of institutional and digital innovation in public service delivery. Official annual reports indicate that ASAN Service centers process an average of 3.5–4 million applications per year (ASAN Service, 2024). More than 90% of services are completed within less than 15 minutes, representing a five- to ten-fold reduction in service delivery time compared to traditional administrative models (ASAN Service, 2024). Citizen satisfaction levels reach approximately 98%, demonstrating the high quality of service provision and organizational efficiency achieved through digital optimization (ASAN Service, 2024). In addition, the implementation of the ASAN Service model has resulted in estimated operational cost savings of 25–30% within the public administration system, empirically confirming the fiscal efficiency of e-government solutions (ASAN Service, 2024).

Empirical Indicators of DOST Centers

DOST centers, operating in the field of social services, strengthen the socially oriented dimensions of digital transformation. According to available data, approximately 160 types of social services are currently

provided through DOST centers, with the annual number of applications exceeding 1.3 million (Ministry of Labor and Social Protection of the Population, 2024). Citizen satisfaction levels range between 95% and 96%, indicating a consistently high quality of service delivery (DOST Agency, 2024).

Empirical evidence suggests that the DOST model has reduced processing times for social service applications by four to six times compared to traditional systems. Furthermore, corruption risks in the social protection sector have reportedly decreased by approximately 20–25%, while service accessibility has doubled relative to previous periods (MLSPP, 2024).

Reduction of Service Time and Bureaucratic Burden

The implementation of electronic public services has led to substantial reductions in service delivery time, with certain services decreasing from an average of ten days to approximately ten minutes (ASAN Service, 2024). This transformation has contributed to a reduction in administrative procedures by an estimated 70–80%, significantly lowering bureaucratic burden (OECD, 2023). As a result, citizen time costs have been minimized, and the utilization of public resources has become more efficient.

International Index Performance

According to the United Nations E-Government Development Index (EGDI), Azerbaijan was classified within the "Very High EGDI" category in 2024 and ranked 74th among 193 countries (United Nations, 2024). This performance reflects progress in the development of electronic services, telecommunications infrastructure, and human capital. However, international comparison indicates that countries such as Estonia and Singapore demonstrate higher levels of AI-driven proactive service implementation, particularly in predictive and automated public service delivery (OECD, 2023).

Data Reliability and Limitations

The statistical data used in this study are derived from official reports published by national government institutions, regulatory documents, and internationally recognized indices issued by organizations such as the United Nations and the OECD. While some indicators are reported as ranges and may reflect specific service categories rather than the entire public sector, the overall data set is characterized by a high level of institutional

credibility and reliability. Consequently, the available data are considered sufficient for constructing an empirical overview of the impact of e-government and artificial intelligence on public service delivery in Azerbaijan.

Risks and Challenges

While the integration of e-government and artificial intelligence into public service delivery generates measurable efficiency gains, it also creates empirically identifiable risks. International research indicates that the primary sources of risk in digital government systems are related to data security, legal uncertainty, and social adaptation challenges.

- **Technological and Cybersecurity Risks**

According to reports by the OECD and the European Union Agency for Cybersecurity (ENISA), the expansion of digital public services in the public sector is associated with an average annual increase of 18–22% in cybersecurity incidents. In the context of Azerbaijan, the storage and processing of personal data belonging to millions of citizens on government platforms significantly expands the potential attack surface. In particular, the centralized management of data for more than two million users on the myGov platform necessitates the continuous strengthening of cybersecurity mechanisms. Empirical studies further suggest that algorithmic errors in AI-based automated systems can negatively affect service quality by approximately 5–8% if such systems are not supported by regular auditing, monitoring, and testing mechanisms. This risk is particularly pronounced in areas where automated decision-making is applied to social protection and administrative processes with direct legal and financial implications for citizens.

- **Legal and Ethical Risks**

According to analytical reports published by the United Nations, only around 30% of countries implementing artificial intelligence in the public sector have fully established legal accountability mechanisms for automated decision-making. This gap indicates that legal and regulatory frameworks often lag behind the pace of technological development.

Empirical observations in Azerbaijan show that, although a significant portion of public services has been digitalized, mechanisms ensuring the explainability of automated decisions and citizens' rights to challenge

such decisions remain insufficiently institutionalized. Even in services with reported satisfaction levels of 95–98%, the absence of clearly defined legal safeguards does not eliminate potential legal and ethical risks associated with AI-driven governance.

- **Social and Institutional Risks**

Digital inequality represents one of the most measurable social risks associated with digital government transformation. International evidence demonstrates that usage rates of electronic public services among population groups with lower levels of digital literacy are approximately 20–30% lower than average. In Azerbaijan, the fact that myGov users account for roughly 20% of the total population suggests that the expansion of digital services must be accompanied by targeted adaptation and inclusion measures to avoid reinforcing existing social disparities.s

Policy Recommendations and Future Perspectives

The statistical and comparative analyses conducted in this study identify several priority areas that can generate measurable outcomes in the next phase of e-government and artificial intelligence integration in Azerbaijan. *First,* the phased implementation of artificial intelligence in public services represents the most empirically effective approach. International experience shows that AI systems introduced through pilot projects can further reduce service delivery time by 15–25% and operational costs by 10–15%. In the Azerbaijani context, this approach has the potential to build upon the existing 25–30% cost savings already achieved through ASAN and DOST service models. *Second,* the expansion of digital identification and electronic signature systems constitutes a critical enabling factor for advanced digital government. Evidence from Estonia indicates that when digital identification coverage exceeds 90%, the share of proactive public services can reach 60–70%. Extending these mechanisms in Azerbaijan would significantly increase the level of service automation and support the transition toward proactive service delivery models. *Third,* strengthening legal and ethical frameworks is essential for sustainable digital transformation. Experience from OECD countries suggests that states with dedicated legal frameworks for artificial intelligence exhibit citizen trust levels that are on average 12–18% higher. Higher trust, in turn, contributes to sustained growth in the use of digital public services and reinforces the legitimacy of AI-enabled governance.

Conclusion

The empirical analysis demonstrates that e-government systems in Azerbaijan have moved beyond the initial implementation stage and entered a phase of large-scale utilization. More than two million users on the myGov platform, 3.5–4 million annual service applications processed through ASAN Service centers, and over 1.3 million applications handled by DOST centers provide clear evidence of the measurable impact of digital public services. Statistical indicators confirm that electronic public services have reduced service delivery time by five to ten times often from days to minutes lowered bureaucratic procedures by 70–80% and generated public sector cost savings of approximately 25–30%. International comparison further indicates that the adoption of AI-driven proactive services could enhance these efficiency gains even further. In conclusion, the integration of e-government and artificial intelligence creates measurable strategic opportunities for transitioning toward a more flexible, transparent, and results-oriented model of public service delivery in Azerbaijan. The realization of these opportunities, however, depends on a phased, empirically grounded approach supported by robust legal regulation and sustained investment in human capital.

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