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AI- DRIVEN TRANSFORMATION IN PUBLIC ADMINISTRATION: GOVERNANCE CHALLENGES AND INSTITUTIONAL CAPACITY IN BOSNIA AND HERZEGOVINA

Merima Tanović Associate Professor, Faculty of Administration University of Sarajevo, Sarajevo, Bosnia and Herzegovina, merima.tanovic@fu.unsa.ba; ORCID ID: 0000-0002-7571-5575

Nevenko Vranješ Associate Professor, Faculty of Political Sciences University of Banja Luka, Banja Luka, Bosnia and Herzegovina, nevenko.vranjes@fpn.unibl.org; ORCID ID: 0000-0003-0006-9449

Abstract: *This study examines the effects and benefits, as well as broader governance challenges related to Artificial Intelligence (AI), including systematical measurement of overall digital reshaping process in digital transformation and capacity building of public administration in Bosnia and Herzegovina. Grounded in contemporary theories of adaptive governance and digital-era public administration, the research conceptualizes AI as a key determinant of transformational capacity in public institutions. The multi-level empirical analysis operationalizes key constructs, including digital maturity degree and the extent of AI use, so as multidimensional impacts in administrative efficiency, service quality, transparency, institutional integrity and strategic decision-making capacity in public administration bodies in Bosnia and Herzegovina. The findings tend to demonstrate a statistically significant correlation between AI use and efficiency improvements, reduction of administrative burden, enhanced integrity mechanisms, but at the same time to highlight structural and organizational constraints, limited technical capacities, regulatory gaps and ethical concerns related to algorithmic bias, accountability and governance. By empirically assessing the transformational capacity of AI in public administration, this study contributes to the growing basis of digital governance, provides policy-relevant insights for the effective integration of AI in line with European administrative standards and principles of trustworthy AI in Bosnia and Herzegovina.*

Keywords*: Artificial intelligence, public administration, digital transformation,institutional capacity*

JEL classification*: O33, H11, D73*

INTRODUCTION

In the digital decade, the application of AI significantly affects the quality of governance, which is further conditioned by the digital maturity of institutions and the digital skills of employees. Furthermore, AI brings certain ethical challenges, but also enables human intellectual capital to operationally move beyond what was previously considered impossible. This implies the automation of processes in public administration, improved and faster decision-making, greater accessibility and responsiveness of institutions, as well as the better detection and management of corruption risks.

In this context, the integration of AI into public administration in Bosnia and Herzegovina must be understood not only as a tool for technological innovation, but as a strategic and structural component of ongoing public administration reform and European integration processes. Recent assessments by SIGMA indicate that, despite certain progress, public administration in Bosnia and Herzegovina continues to face systemic challenges, including weak coordination, fragmented governance structures, limited accountability, and insufficient institutional capacity for implementing complex reforms. These structural constraints directly affect the ability of public institutions to adopt and effectively utilize advanced digital technologies such as AI. Similarly, the latest European Commission Report highlights that Bosnia and Herzegovina remains at an early stage of preparation in key areas of digital transformation, with the absence of a coherent legislative and strategic framework aligned with the EU acquis, particularly in domains related to digital governance, interoperability, and data-driven public services. The report further emphasizes persistent weaknesses in transparency, coordination, and institutional capacity, all of which are critical preconditions for the successful deployment of AI-based systems. At the same time, the European Union has established a comprehensive regulatory approach to AI through the AI Act, which introduces a risk-based governance model emphasizing transparency, accountability, human oversight, and the protection of fundamental rights. This regulatory framework sets clear expectations for candidate countries, including Bosnia and Herzegovina, to align their institutional and legal systems with the principles of trustworthy AI as part of the broader EU *acquis.*

Current research on AI in public administration is predominantly focused on highly developed and digitally mature governance systems, with limited empirical evidence from complex, multi-level, and transitional administrative environments. The research problem is addressing these gaps, followed by providing an integrated empirical analysis of artificial intelligence in the public administration of Bosnia and Herzegovina. It contributes to the literature by (a) extending empirical research to a fragmented and transitional governance context, (b) developing a multidimensional analytical framework that links AI use, digital maturity, and measurable institutional outcomes, and (c) incorporating ethical risk perception as a key governance variable influencing the realization of AI benefits.

LITERATURE REVIEW

The integration of AI into public administration has gained significant scholarly attention over the past decade, particularly within the broader context of digital governance and public sector innovation, leaving behind traditional governance as insufficient for meeting the contemporary demands and needs of citizens. AI is increasingly

conceptualized not only as a technological tool but as a transformative force for institutional capacity and public good, enabling public organizations to enhance efficiency, service delivery, and decision-making processes .

A growing body of empirical research demonstrates that AI adoption contributes to improved administrative efficiency by adaptive, hybrid governance and reducing bureaucratic workload. Studies indicate that AI-supported systems can significantly accelerate processing times and enhance productivity within public institutions . Autonomous mode of AI significantly enhances quality, speed and citizen engagement in simple, complex or time-sensitive inquiries . Its cumulative benefits further encompass automated document generation, advanced analytical techniques and targeted service provision , thereby reinforcing institutional capacity and supporting evidence-based national strategic planning.

Practical implementations further illustrate that AI facilitates innovative governance solutions, including intelligent automation of routine administrative tasks, predictive allocation of public resources, and scalable digital interaction with citizens through tools such as chatbots and algorithmic classification systems, thereby expanding the functional capacity of public institutions. Beyond efficiency gains, AI has been shown to improve the quality of public services through enhanced accuracy, personalization, and responsiveness. AI-driven analytics enable governments to better understand citizen needs and tailor services accordingly, leading to higher levels of service effectiveness . Moreover, the use of AI in decision-support systems contributes to more evidence-based policymaking, strengthening the strategic capacity of public administration.

Also, AI plays a critical role in optimizing administrative performance , but with uncertainties and attendant risks concerning human autonomy and control loss over decision-making .

Transparency and accountability represent another critical dimension of AI implementation in the public sector. Research suggests that AI can enhance transparency by enabling real-time monitoring, traceability of decisions, and improved detection of irregularities . At the same time, however, scholars caution that increased reliance on algorithmic systems may introduce new forms of opacity, particularly in cases where decision-making processes are not fully explainable.

The concept of digital maturity has emerged as a key explanatory factor in understanding the successful adoption and impact of AI in public institutions. Digital maturity encompasses technological infrastructure, organizational readiness, and human capital capabilities, all of which are essential for effective AI implementation . Empirical findings consistently show that institutions with higher levels of digital maturity are more likely to adopt AI and derive greater benefits from its use, supporting the structural linkage between digital capacity and AI-driven transformation.

At the same time, the literature emphasizes that AI adoption introduces significant ethical and governance challenges. Issues such as algorithmic bias, lack of transparency, and risks to accountability have become central concerns in the deployment of AI systems in the public sector . Recent research further highlights that the perception of these risks may influence the extent to which AI benefits are realized, suggesting a complex interaction between technological adoption and governance frameworks .

Importantly, scholars increasingly point to a “double-edged effect” of AI in public administration: while AI can strengthen institutional integrity through improved

monitoring and detection mechanisms, it can also create new vulnerabilities if not properly governed . This perspective is particularly relevant for transitional governance systems, where institutional capacities and regulatory frameworks may still be evolving.

METHODOLOGY

Research Design

This study adopts a quantitative research design aimed at examining the correlation between AI adoption and institutional performance in public administration.

Primary data were collected in March and April 2026 on all administrative levels in Bosnia and Herzegovina using a structured questionnaire, designed to capture perceptions of public administration employees regarding the use of AI, its benefits, and associated challenges. The instrument is based on a five-point Likert scale (1–5), ranging from *"strongly disagree"* to *"strongly agree"*, allowing for the measurement of attitudes toward AI implementation and its perceived effects.

In accordance with the established hypotheses, the research is guided by the following research questions (RQ):

RQ1: To what extent do public institutions in Bosnia and Herzegovina exhibit digital maturity and readiness for AI adoption?

RQ2: What is the extent and scope of AI use in public administration processes?

RQ3: How does the use of AI affect operational efficiency, decision-making, service quality and transparency in public institutions?

RQ4: What are the key institutional, regulatory, and ethical challenges associated with AI adoption in public administration? The study operationalizes key constructs through multiple indicators derived from the questionnaire:

- Independent variable:
  - Extent of AI use in public administration
- Dependent variables:
  - Operational efficiency (e.g., process monitoring, administrative burden reduction)
  - Decision-making quality
  - Strategic planning improvement
  - Resource management
  - Transparency
  - Detection of irregularities and corruption risk reduction
- Control variables:
  - Institutional type
  - Level of government
  - Position
  - Work experience
  - Age and gender
- Barriers (moderating factors):
  - Lack of knowledge
  - Regulatory constraints
  - Employee resistance
  - Ethical concerns

The collected data were analyzed using statistical software (SPSS), which includes: descriptive statistics (frequencies, percentages, mean values), reliability analysis (Cronbach's alpha for internal consistency), correlation analysis and regression analysis.

Within the theoretical framework, guided by comparative practices and the contemporary use of AI in public administration, this study tests the following hypotheses:

H1: Digital maturity and digital literacy are positively associated with the extent of AI use in public institutions.

H2: The extent of AI use is positively associated with improvements in operational efficiency, including reduced administrative burden and faster processing of cases.

H3: The use of AI is positively associated with enhanced transparency and improved detection of irregularities and corruption risks.

H4: Institutional barriers, including lack of knowledge, regulatory constraints, and employee resistance, are negatively associated with the extent of AI use.

The research conceptualizes transformational capacity of AI as an underlying mechanism shaping multiple dimensions of institutional performance.

RESULTS AND DISCUSSION

Sample characteristics

The empirical analysis was conducted on a sample of 210 respondents employed across public administration institutions in Bosnia and Herzegovina, including ministries, administrations, administrative organizations, and other public bodies at state, entity/Brčko District, cantonal, and local levels.

Table 1. Sample structure of respondents

Variable	Category	n	%
Institution type	Administration	72	34.3
	Other institutions/public bodies	51	24.3
	Administrative organisation	45	21.4
	Ministry	42	20.0
Level of government	Entity/Brcko district	102	48.6
	State	41	19.5
	Cantonal	39	18.6
	Local	27	12.9
Position category	Senior/managerial staff	89	42.4
	Other civil servants	87	41.4
	Employees/support staff	23	11.0
	IT sector	9	4.3
Years of experience in public service	10 years and longer	133	63.3
	5-10 years	39	18.6
	0-5 years	38	18.1

Variable	Category	n	%
Age group	36-45 years	92	43.8
	46-55 years	68	32.4
	25-35 years	28	13.3
	56- 65 years	21	10.0
Gender	M	109	51.9
	F	100	47.6

Source: Author's

The sample is institutionally heterogeneous. The largest proportion of respondents comes from administrations (34.3%), followed by other public institutions (24.3%), administrative organizations (21.4%), and ministries (20.0%). Entity and Brčko District institutions dominate the sample (48.6%), while managerial staff (42.4%) and other civil servants (41.4%) represent the majority of respondents. In terms of experience, 63.3% of respondents have more than ten years of service, indicating a highly experienced sample capable of assessing institutional processes. The age structure is concentrated in the 36–55 range, and gender distribution is balanced. This structure ensures a comprehensive institutional perspective on AI adoption and its organizational implications.

Reliability and descriptive statistics

Internal consistency of the constructs was assessed using Cronbach's alpha. The results indicate satisfactory to excellent reliability for all principal constructs. Digital readiness ($\alpha = 0.830$) and extent of AI use ($\alpha = 0.895$) indicate strong internal consistency, while benefit-related constructs show very high reliability: operational efficiency ($\alpha = 0.923$), transparency and integrity ($\alpha = 0.904$), and strategic benefits ($\alpha = 0.930$). Institutional barriers also reach acceptable reliability ($\alpha = 0.711$).

Table 2. Reliability and descriptive statistics of the composite constructs

Construct	Items	Cronbach alpha	Mean	SD	Min	Max
Digital readiness	5	0.83	2.905	0.883	1.0	5.0
Extent of AI use	4	0.895	1.83	0.853	1.0	5.0
Operational efficiency	3	0.923	3.484	1.183	1.0	5.0
Service quality and decision-making	3	0.891	3.219	1.065	1.0	5.0
Transparency and integrity	3	0.904	3.124	1.102	1.0	5.0
Strategic benefits	3	0.93	3.421	1.086	1.0	5.0
Institutional barriers	4	0.711	3.529	0.868	1.0	5.0

Source: Author's

Descriptive statistics reveal several important patterns. The highest mean value is recorded for institutional barriers ($M = 3.529$), followed by operational efficiency ($M = 3.484$) and strategic benefits ($M = 3.421$). In contrast, the extent of AI use remains notably low ($M = 1.830$), while digital readiness is moderate ($M = 2.905$), which suggests that respondents perceive AI as potentially beneficial even though its

institutional deployment is still limited and uneven. Moderate level of digital readiness is indicating a transitional stage between early digitalization and broader AI-enabled transformation.

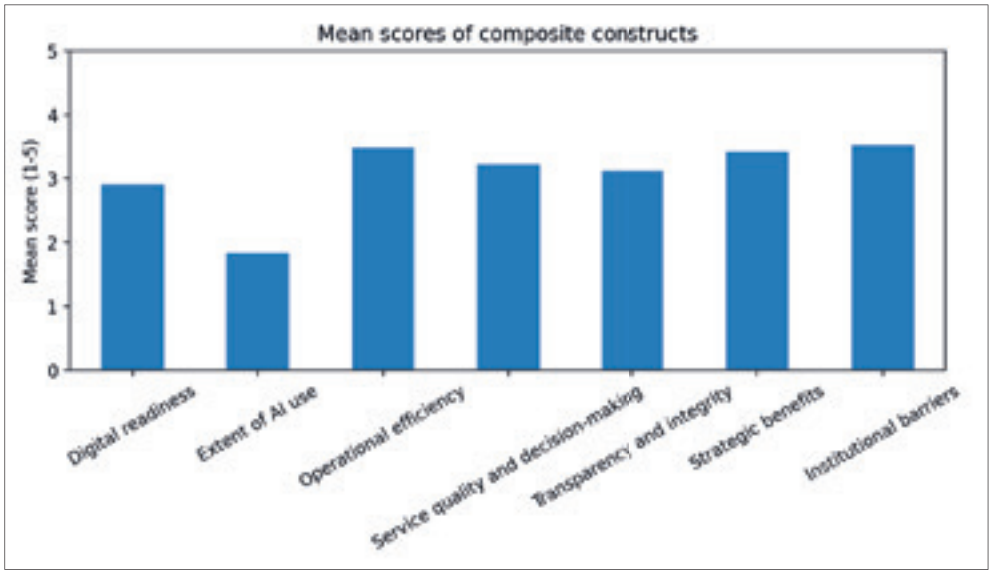

Figure 1. Mean scores of the composite constructs
Source: Author's

Correlation analysis

Pearson correlation analysis shows that digital readiness is strongly and positively associated with the extent of AI use ($r = 0.495$, $p < 0.001$), confirming that digital maturity represents a key enabling factor for AI adoption. A positive and statistically significant relationship is also observed between AI use and operational efficiency ($r = 0.199$, $p = 0.004$). However, the relationship between AI use and transparency and integrity is weaker and does not reach conventional significance levels ($r = 0.128$, $p = 0.065$). Institutional barriers show a negative but statistically insignificant association with AI use ($r = -0.080$, $p = 0.249$), suggesting that barriers are recognized but not yet decisive in limiting AI implementation.

Table 3. Pearson correlations among the key constructs

Variable	Digital readiness	Extent of AI use	Operational efficiency	Transparency and integrity	Institutional barriers
Digital readiness	1	0.495**	0.189**	0.046	-0.028
Extent of AI use	0.495**	1	0.199**	0.128	-0.080
Operational efficiency	0.189**	0.199**	1	0.708**	0.398**
Transparency and integrity	0.046	0.128	0.708**	1	0.377**
Institutional barriers	-0.028	-0.080	0.398**	0.377**	1

Source: Author's

Regression analysis

To further examine causal relationships, three regression models were estimated.

The Model 1 explains 24.9% of the variance in AI use ($R^2 = 0.249$, $p < 0.001$). Digital readiness emerges as a strong and statistically significant predictor ($\beta = 0.493$, $p < 0.001$), while institutional barriers do not have a significant effect ($\beta = -0.066$, $p = 0.275$).

Further, Model 2 examined whether AI use has a positive and statistically significant effect on operational efficiency ($\beta = 0.199$, $p = 0.004$), although the explained variance is modest ($R^2 = 0.039$).

Model 3 explained that the effect of AI use on transparency and integrity is positive but only marginally significant ($\beta = 0.128$, $p = 0.065$), indicating that this relationship is not yet fully established.

No multicollinearity issues were detected (VIF ≈ 1.00), and residuals follow an approximately normal distribution, confirming model validity.

Table 4. Model summary for the regression analyses

Model	Dependent variable	Predictors	R^2	Adj. R^2	F	Sig.
Model 1	Extent of AI use	Digital readiness; Institutional barriers	0.249	0.242	34.361	< .001
Model 2	Operational efficiency	Extent of AI use	0.039	0.035	8.550	0.004
Model 3	Transparency and integrity	Extent of AI use	0.016	0.012	3.451	0.065

Source: Author's

Table 5. Regression coefficients

Model	Predictor	B	Beta	t	Sig.	VIF
Model 1	Digital readiness	0.476	0.493	8.183	< .001	1.001
Model 1	Institutional barriers	-0.065	-0.066	-1.094	0.275	1.001
Model 2	Extent of AI use	0.276	0.199	2.924	0.004	-
Model 3	Extent of AI use	0.165	0.128	1.858	0.065	-

Source: Author's

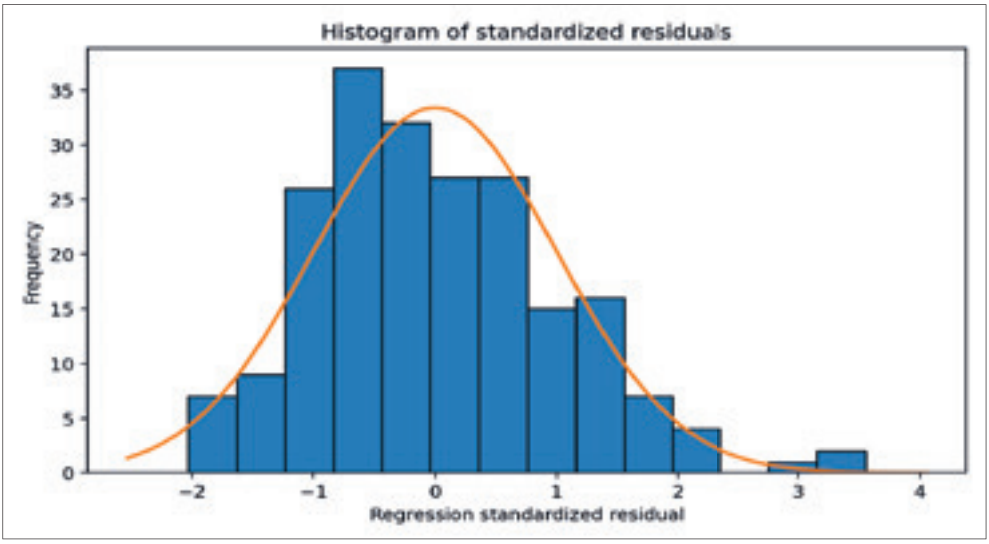

Figure 2. Histogram of standardized residuals for Model 1
Source: Author's

The histogram indicates approximately normal distribution of residuals, confirming the assumption of normality.

Table 6. Summary of hypothesis testing

Hypothesis testing summary

Hypothesis	Path tested	Empirical result	Conclusion
H1	Digital readiness → Extent of AI use	r = 0.495, p < .001; β = 0.493, p < .001	Supported
H2	Extent of AI use → Operational efficiency	r = 0.199, p = .004; β = 0.199, p = .004	Supported
H3	Extent of AI use → Transparency and integrity	r = 0.128, p = .065; β = 0.128, p = .065	Partially supported / marginal
H4	Institutional barriers → Extent of AI use	r = -0.080, p = .249; β = -0.066, p = .275	Not supported

Source: Author's

The empirical pattern indicates that the strongest support is found for the enabling role of digital readiness in stimulating AI adoption. The effect of AI use on operational efficiency is also confirmed, which aligns with the theoretical expectation that AI contributes primarily through time savings, productivity gains, and administrative simplification. The transparency-related effects move in the expected positive direction but are not yet sufficiently consolidated to produce strong statistical confirmation. This is plausible in a context where institutional AI use is still in an early phase and may not yet be deeply integrated into control, supervision, and integrity systems. Finally, the fourth hypothesis is not supported, suggesting that barriers are recognized by respondents, but they do not presently operate as a decisive statistical inhibitor of AI use once digital readiness is taken into account.

Supplementary qualitative insights

Qualitative responses reinforce quantitative findings. The most frequently identified benefits of AI include time savings, increased work speed, improved data analysis, and support for decision-making and strategic planning. The most frequently mentioned application areas are IT and analytics, administrative processes, finance and HR, legal and inspection activities, and citizen services. These insights confirm that AI is primarily perceived as a tool for efficiency and procedural modernization rather than a fully institutionalized decision-making mechanism.

Table 7.

Most frequent benefit themes: Time saving / speed (102), Data analysis / information retrieval (59), Strategic planning / decision support (25), Administrative burden reduction (12), Transparency / corruption risk reduction (10)
Most frequent sector themes: IT / analytics (85), Administration / protocol (45), Finance / planning / HR (28), Legal / inspection / control (21), Citizen-facing services (8)

Source: Author's

The findings contribute to the literature on digital governance by demonstrating that organizational readiness, rather than resistance, represents the primary determinant of AI adoption in public administration.

The strong effect of digital readiness supports existing theoretical frameworks which position digital maturity as a prerequisite for advanced technological integration. In the context of Bosnia and Herzegovina, this suggests that AI adoption is less constrained by institutional opposition and more by structural and capacity-related limitations.

The confirmed relationship between AI use and operational efficiency aligns with prior empirical studies, indicating that the earliest and most visible impact of AI emerges in routine administrative processes, including automation, data handling, and workflow optimization.

However, the relatively weak and statistically marginal relationship between AI use and transparency highlights an important nuance. While AI is often normatively linked to improved accountability and reduced corruption risks, these benefits appear to require deeper institutional embedding, regulatory frameworks, and governance mechanisms before they can materialize in measurable outcomes.

Furthermore, the non-significant effect of institutional barriers challenges common assumptions in the literature. Rather than acting as direct inhibitors, barriers may operate indirectly, shaping the broader context of digital readiness rather than directly suppressing AI use. This finding suggests that policy efforts should focus less on removing resistance and more on building digital infrastructure, skills, and organizational capacity.

A particularly important insight is the observed implementation gap: respondents recognize the benefits of AI (high mean values for efficiency and strategic gains), yet actual use remains low. This indicates a latent reform potential, where public institutions are cognitively prepared for AI adoption but lack the operational conditions to implement it effectively.

From a policy perspective, this implies that Bosnia and Herzegovina is currently in a transitional phase of AI adoption, where strategic alignment and capacity build-

ing could rapidly accelerate implementation if supported by appropriate governance frameworks.

CONCLUSION

The rapid intensification of AI use is reshaping the foundations of public administration worldwide, introducing new possibilities for efficiency, responsiveness, and data-driven governance. In contemporary public sector contexts, AI is increasingly perceived not merely as a technological innovation but as a strategic instrument of institutional transformation, capable of enhancing public value creation and improving administrative performance.

This study did the empirical observation of the AI use in the public administration of Bosnia and Herzegovina through the lens of transformational capacity, focusing on its measurable effects, benefits, and associated challenges. The findings confirmed correlation between AI adoption and significant efficiency improvements, service quality, and transparency, thereby reinforcing its role as a key enabler of public value creation and better administrative practices in Bosnia and Herzegovina.

At the same time, the study demonstrates that the realization of these benefits is not automatic but contingent upon the level of institutional readiness, particularly digital maturity. The results highlight that public institutions with more developed digital infrastructures, strategic orientation, and organizational capacities are better positioned to leverage AI technologies effectively. This underscores the importance of viewing AI not merely as a technological tool, but as a systemic governance instrument embedded within broader processes of digital transformation.

This study provides empirical evidence on the determinants and effects of AI adoption in public administration in Bosnia and Herzegovina. The findings demonstrate that digital readiness represents the most significant predictor of AI use, confirming its role as a fundamental enabling condition for technological transformation. While AI use is shown to have a positive and statistically significant effect on operational efficiency, its overall explanatory power remains modest, indicating that AI is still at an early stage of institutional integration. At the same time, the relationship between AI use and transparency and integrity is positive but only marginally significant, suggesting that governance-related benefits require deeper institutional embedding. Notably, institutional barriers do not exhibit a statistically significant effect on AI use, implying that constraints to adoption are less related to resistance and more to structural and capacity-related limitations.

Importantly, the research also reveals that increased use of AI is accompanied by a heightened awareness of ethical risks and governance challenges. Issues related to transparency, accountability, and algorithmic fairness emerge as critical factors that may influence both the legitimacy and sustainability of AI deployment in the public sector. This finding aligns with contemporary debates on trustworthy AI and emphasizes the need for a balanced approach that integrates innovation with robust governance safeguards.

Taken together, the results reveal a clear implementation gap, where public administration institutions recognize the potential benefits of AI but have not yet translated this awareness into widespread practical application. This indicates that Bosnia and Herzegovina is currently in a transitional phase of AI adoption, situated between initial

digitalization and more advanced, AI-driven transformation. From a policy perspective, the findings highlight the need to prioritize the development of digital infrastructure, human capital, and institutional capabilities as key preconditions for effective AI integration. Future research should further explore sector-specific applications of AI and examine longitudinal effects as implementation progresses, particularly in relation to transparency, accountability, and governance outcomes.

According to research feedback and empirical findings, several normative and policy-oriented recommendations (de lege ferenda) can be proposed for Bosnia and Herzegovina, in order to accelerate and continuously evolve digital transformation path in public administration reform process, in terms of:

a) Establishing a comprehensive legal and strategic framework for AI in public administration

There is a clear need to develop a coherent regulatory framework governing the use of AI in the public sector. Such a framework should be aligned with European standards and incorporate key principles of lawful, ethical, and transparent AI use, including human oversight, accountability, and data protection.

b) Institutionalization of digital maturity as a governance standard

Public administration reform should explicitly integrate digital maturity as a core institutional benchmark. This includes the systematic development of digital infrastructures, interoperable data systems, and organizational capacities necessary for effective AI adoption.

c)Development of ethical governance mechanisms for AI

It is necessary to establish formal mechanisms for assessing and managing ethical risks associated with AI systems. This may include the introduction of algorithmic impact assessments, internal oversight structures, and clear accountability frameworks within public institutions.

d) Capacity building and professional training

The effective use of AI requires significant investment in human capital. Targeted training programs should be developed to enhance digital competencies, analytical skills, and understanding of AI-related risks among public servants.

e) Integration of AI into anti-corruption and integrity systems

AI technologies should be strategically integrated into existing mechanisms for monitoring, inspection, and anti-corruption efforts. By improving data analysis and risk detection capabilities, AI can strengthen institutional integrity and contribute to more effective enforcement of legal and administrative standards.

f) Multi-level governance and coordination

Given the complex administrative structure of Bosnia and Herzegovina, it is essential to ensure coordination across different levels of government. A harmonized approach to AI implementation would reduce fragmentation and enhance knowledge sharing and institutional learning.

Ultimately, AI represents a transformative force in public administration, offering significant opportunities for enhancing efficiency and fulfillment in deriving public good. However, its successful integration depends on the ability of institutions to simultaneously innovate and govern. In this sense, the future of AI in the public sector of Bosnia and Herzegovina will be determined not only by technological advancement, but by the development of coherent legal frameworks, institutional capacities, and ethical governance systems.

In doing so, the study positions AI as a central element of transformational capacity in public administration, while simultaneously aligning its analytical framework with European standards of digital governance, public administration reform principles, and the emerging regulatory paradigm of trustworthy AI.

LITERATURE

Cath, C., Wacher, S., Mittelstadt, B., Taddeo, M., & Floridi, L. (2020). Artificial intelligence and the "good society": The US, EU and UK approach. *Science and Engineering Ethics*.

Criado , J., Guevara-Gomez, A., & Villodre, J. (2023). Artificial Intelligence in the public sector: A systematic literature review. *Government Information Quarterly*.

Desouza, K. (2021). *Artificial Intelligence in the Public Sector: A Maturity Model.* IBM Center for The Business of Government.

Dunleavy, P., Margetts, H., & Tinkler, J. (2020). *Digital era governance revisited.* Oxford University Press.

European Commission. (2025). *Bosnia and Herzegovina Report 2025.* Brussels: European Commission.

Fatima, S., Desouza, K., & Dawson, G. (2020). National strategic artificial intelligence plans:A multi-dimensional analysis. *Economic Analysis and Policy*, 178-194.

Firlej, M., & Taeihagh, A. (2021). Regulating human control over autonomous systems. *Regulation&Governance*.

Goldsmith, S. (2017). Artificial Intelligence Will Help Create a More Responsive Government. *Government Technology* .

Kuziemsky, M., & Misuraca, G. (2020). AI governance in public sector. *Telecommunications Policy*.

Leiser, M., & Murray, A. (2016). *The role of non-state actors and institutions in the governance of new and emergening digital technologies.* Oxford: Oxford Handbook of Law, regulation aand technology.

Lindgren, I., van Veenstra, A., & Janssen, M. (2022). AI in public governenace: Risks and benefits. *Information Polity*.

Mehr, H. (2017, August may 7th). *ash.harvard.edu* . Retrieved from Harvard Kenneddy School: https://ash.harvard.edu/publications/

Meijer, A., & Grimmelikhuijsen, S. (2021). Responsible and accountable AI in government. *Public Administration Review*.

Nili, A., Barros, A., & Tate, M. (2019). The public sector can teach us a lot about digitizing customer service. *MIT Sloan Management Review*, 84-87.

Pasquale, F. (2020). *New laws of robotics: Defending human expertise in the age of AI.* Harvard University Press.

SIGMA. (2024). *Monitoring Report: The Principles of Public administration- Bosnia and Herzegovina.* SIGMA/OECD.

Stamatis, A. (2020). Using chatbots and life events to provide public service information. *Proceed-*

ings of the 13th International Conference on Theory and Practice of Electronic Governance, (pp. 54-61).

Taeihagh, A. (2021). Governance of artificial intelligence. *Policy and society Vol. 40 No. 2*, 137-157.

Tanović, M., & Šašić, Đ. (2026). *Novo javno upravljanje.* Sarajevo: Fakultet za upravu-pridružena članica Univerziteta u Sarajevu.

Valle-Cruz, D. (2022). AI and public value creation. *Public Management Review*.

Valle-Cruz, D., Criado, J., Sandoval-Almazan, R., & Rulvalcaba-Gomez, E. (2020). Assesing AI in government. *Government Information Quarterly*.

Wirtz, B., Weyerer, J., & Geyer, C. (2020). Artificial intelligence in public administration. *International Journal of Public Administration*.

Wirtz, B.W. et al. (2021). Digital Transformation and AI in the public sector. *Public Management Review*.

Zuiderwijk, A., Chen, Y., & Salem, F. (2021). Implications of AI for public governance. *Government*.