SMART GOVERNANCE AND PUBLIC HEALTH IN THE DIGITAL AGE: NEW PARADIGMS FOR RESILIENCE AND SUSTAINABLE REGIONAL DEVELOPMENT

CORINA KAUSHAN, Associate Professor, PhD in Economics, „Constantin Stere" University of European Political and Economic Studies, Republic of Moldova.
ORCID: 0009-0008-1726-7541

e-mail: kausankorina@gmail.com

Abstract

Digital transformation and smart governance are reshaping public health systems by improving service delivery, strengthening institutional resilience, and addressing regional disparities. This study investigates the role of smart governance in the digital transformation of healthcare systems, focusing on socio-demographic determinants influencing the adoption of digital health services and their implications for system resilience and sustainable regional development.

A cross-sectional survey was conducted among urban and rural populations and analyzed using descriptive statistics, chi-square tests, and binary logistic regression. The results indicate significant differences in digital health service utilization by residential environment ($\chi^2 = 18.76$; $p < 0.001$) and age group ($\chi^2 = 24.33$; $p < 0.001$). Urban respondents demonstrated higher levels of digital health service use compared to rural respondents (81% vs. 45%) and reported greater trust in e-governance systems.

The logistic regression model confirmed that place of residence is a significant predictor of digital health adoption (OR = 2.35; $p < 0.001$), while age negatively influences the likelihood of use (OR = 0.82; $p < 0.01$). Digital literacy emerged as the strongest determinant of adoption (OR = 3.80; $p < 0.001$), whereas gender was not statistically significant ($p = 0.42$).

The findings highlight persistent structural digital inequalities that influence access to healthcare services and limit equitable participation in digital health ecosystems. The study concludes that strengthening smart governance frameworks, combined with targeted digital literacy interventions and inclusive digital infrastructure policies, is essential for improving health system resilience and promoting sustainable regional development.

Keywords: smart governance; public health systems; health system resilience; digital divide; e-governance; digital literacy; digital health adoption; logistic regression; socio-demographic determinants;

JEL: A1 , I1, H51, H54, Q57

1. Introduction

Digital transformation has become a central pillar in the modernization of public health systems worldwide, reshaping governance structures, service delivery models, and population engagement with healthcare services. Within this context, smart governance emerges as a multidimensional framework

integrating data-driven decision-making, digital infrastructure, and citizen-centered public service design [1].

Despite rapid technological advancements, significant disparities persist in the adoption of digital health services, particularly across socio-demographic and territorial dimensions [7]. Previous studies highlight that the benefits of digital health transformation are not evenly distributed, often reinforcing existing inequalities related to age, education, and place of residence [8].

In European and transition economies alike, including Moldova, digital health adoption is strongly influenced by infrastructural limitations, digital literacy gaps, and uneven institutional capacity [2][3][4][5]. These challenges directly affect health system resilience, particularly in crisis contexts such as pandemics or economic disruptions.

This study aims to analyze the relationship between smart governance, socio-demographic determinants, and digital health adoption, with a focus on implications for health system resilience and sustainable regional development.

2. Methods

A cross-sectional survey design was employed to assess patterns of digital health service utilization and perceptions of smart governance. The study population included respondents from urban and rural areas, ensuring socio-territorial comparability.

The study examined digital health service utilization as the primary dependent variable, operationalized as a binary outcome distinguishing between high and low levels of utilization. To identify the factors associated with this outcome, four independent variables were incorporated into the analysis: place of residence (categorized as urban or rural), age, gender, and digital literacy level.

Data analysis proceeded in three stages. First, descriptive statistics were computed to characterize the study sample, with categorical variables summarized through frequencies and percentages. Second, chi-square (χ^2) tests were applied to examine bivariate associations between each independent variable and the level of digital health service utilization, allowing for an initial assessment of statistically meaningful relationships among categorical measures. Third, binary logistic regression was employed to determine the relative contribution of each independent variable in predicting digital health adoption, while controlling for the influence of the remaining factors. Throughout all analyses, a significance threshold of $p < 0.05$ was applied as the criterion for statistical inference.

The research employed descriptive and inferential statistical methods to analyze the relationship between socio-demographic factors and the use of digital health services. Descriptive analysis enabled the presentation of respondent distributions by residential environment, age, and sex, using frequency tables and percentages.

To verify the existence of associations between categorical variables, the Chi-square test (χ^2) was applied. The results revealed a statistically significant association between residential environment and the level of digital health service utilization ($\chi^2 = 18.76$; $df = 2$; $p < 0.001$), indicating that urban respondents use these services more frequently. Additionally, analysis by age group demonstrated the existence of statistically significant differences ($\chi^2 = 24.33$; $df = 6$; $p < 0.001$), with digital service utilization declining with increasing age.

Binary logistic regression was used to identify predictive factors of high digital health service utilization. The dependent variable was high digital service utilization (1 = yes, 0 = no), while the independent variables included residential environment, age, sex, and digital literacy level. The results showed that urban respondents are 2.35 times more likely to use digital services compared to rural respondents (OR = 2.35; $p < 0.001$). High digital literacy proved to be the strongest predictor of utilization (OR = 3.80; $p < 0.001$), while increasing age reduces the probability of utilization (OR = 0.82; $p < 0.01$). The sex variable did not reach statistical significance ($p = 0.42$).

These results confirm the influence of socio-demographic and educational factors on the degree of digital health service adoption.

3. Results

3.1 Descriptive Findings

An initial examination of the data revealed notable differences in digital health service utilization across residential and age groups. Urban respondents demonstrated considerably higher rates of utilization, with 81% reporting engagement with digital health services, compared to only 45% among their rural counterparts. With respect to age, a clear generational gradient emerged: younger age groups exhibited markedly higher adoption rates, while individuals aged 60 and above recorded the lowest levels of digital health service use across all age categories examined.

3.2 Inferential Analysis

Chi-square testing confirmed that these observed differences were statistically significant. A significant association was found between place of residence and digital health utilization ($\chi^2 = 18.76$; $p < 0.001$), indicating that residential location is meaningfully related to whether individuals engage with digital health services. Similarly, age group demonstrated a strong and statistically significant association with utilization ($\chi^2 = 24.33$; $p < 0.001$), corroborating the descriptive pattern in which older respondents were considerably less likely to use such services.

3.3 Logistic Regression Results

The binary logistic regression model provided further insight into the relative strength and direction of these associations while controlling for all variables simultaneously. Place of residence emerged as a significant predictor, with urban residents being approximately 2.35 times more likely to utilize digital health services than rural residents (OR = 2.35; $p < 0.001$). Age was also a significant predictor, with each unit increase in age associated with a modest but meaningful reduction in the likelihood of utilization (OR = 0.82; $p < 0.01$), reflecting a gradually declining probability of adoption among older respondents. Digital literacy proved to be the strongest predictor in the model, with higher levels of digital literacy associated with nearly four times greater odds of digital health service adoption (OR = 3.80; $p < 0.001$). Gender, by contrast, did not reach statistical significance ($p = 0.42$) and was therefore not identified as a meaningful predictor of digital health utilization in this sample.

Digital literacy emerged as the strongest predictor of digital health adoption, while rural residence and increasing age significantly reduced the probability of high utilization.

4. Discussion

Figure 1 presents an integrated conceptual model illustrating the sequential and interdependent pathways through which smart governance enables digital health transformation, which in turn contributes to system resilience and, ultimately, sustainable regional development. The model is organized into three primary structural pillars - Smart Governance, Digital Health, and System Resilience - connected by solid directional arrows that indicate primary causal relationships, while dashed arrows represent feedback loops and contextual influences operating throughout the system.

The first pillar, Smart Governance, encompasses four foundational dimensions: data-driven decision-making supported by evidence-based policies and real-time monitoring; digital infrastructure and interoperability through integrated systems and data standards; citizen engagement and participation via co-creation of policies and transparent communication; and ethics, transparency, and accountability, grounded in data protection, privacy, trust, and legitimacy. Together, these dimensions constitute the enabling governance environment from which digital health initiatives emerge.

The second pillar, Digital Health, receives the governance inputs and translates them into operational health system components, including digital health services such as eHealth platforms, telemedicine, and mobile health; data analytics and AI-enabled tools for predictive analytics and clinical decision support; integrated health information systems built on electronic health records and interoperable data exchange; and digital health literacy and inclusion efforts aimed at building skills and ensuring equitable access.

The third pillar, System Resilience, captures the health system outcomes generated through digital transformation, organized across four capacities: preparedness through risk monitoring and early warning

systems; adaptive capacity via flexible processes and learning health systems; response capacity ensuring continuity of care and resource optimization; and recovery and sustainability oriented toward system strengthening and long-term development.

The model further identifies four desired outcomes situated beyond the resilience pillar: improved population health, equity in access and outcomes, efficient and effective systems, and sustainable regional development. Underpinning all three pillars is a horizontal layer of contextual factors - including socio-demographic characteristics, infrastructure and connectivity, digital literacy and skills, policy and regulatory frameworks, economic resources and investment, and cross-sector collaboration - which exert upward influence on each pillar simultaneously. A continuous feedback loop running across the top of the model, labeled as data, learning, and innovation, signals the dynamic and iterative nature of the framework, wherein outcomes inform and refine governance and health system processes over time.

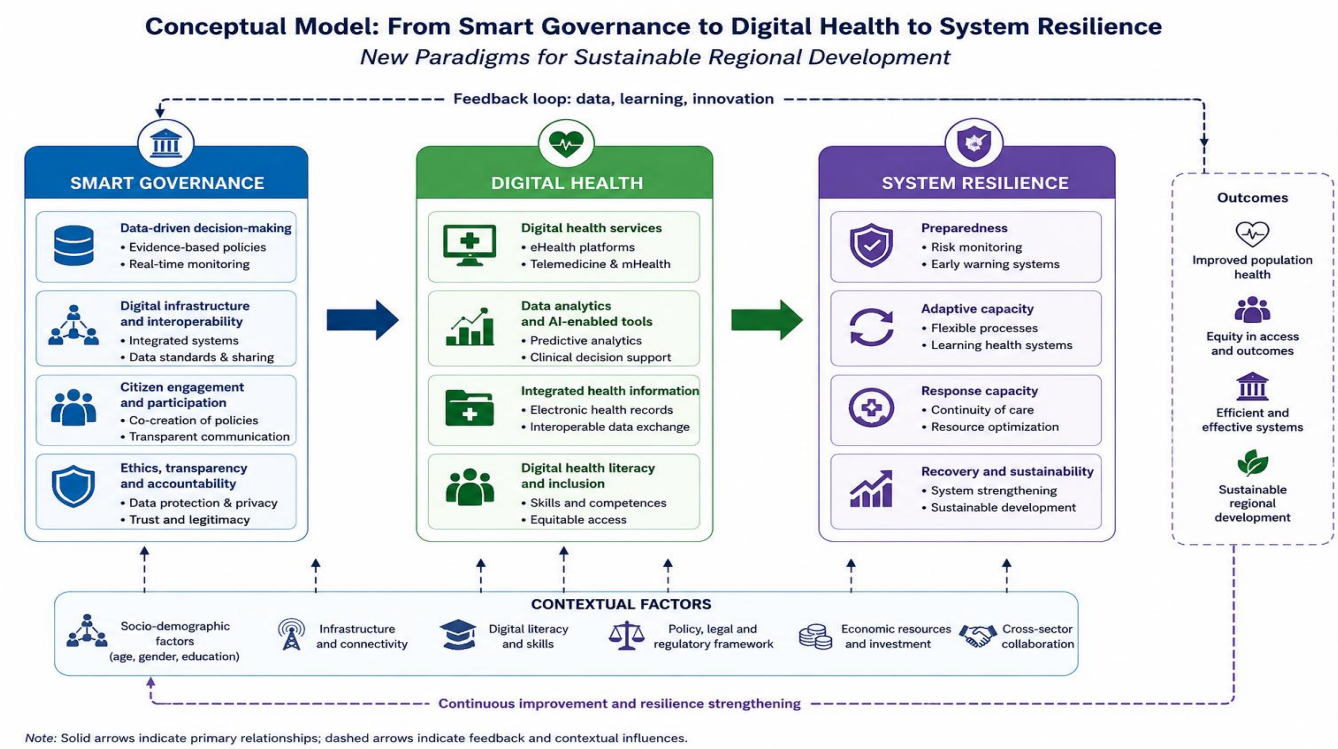

Fig.1. Conceptual model of the pathways from smart governance to digital health and system resilience for sustainable regional development

Source: Elaborated by author

The findings confirm the presence of structural digital inequalities affecting access to and utilization of digital health services. The significant urban–rural gap highlights persistent infrastructural and institutional disparities that limit equitable access to smart healthcare solutions [10].

The negative association between age and digital health adoption reflects a well-documented generational digital divide, where older populations face barriers related to digital literacy, accessibility, and trust in technology-based systems.

Conversely, digital literacy appears as the most influential determinant, emphasizing the critical role of education and capacity-building in enabling effective participation in digital health ecosystems.

From a policy perspective, these findings suggest that smart governance strategies must extend beyond technological deployment to include inclusive digital literacy programs, infrastructure investment in rural areas, and trust-building mechanisms for AI-driven health services.

At the European level, these results align with the objectives of the EU Digital Decade 2030, which prioritizes inclusive digital transformation. For transition economies such as Moldova, strengthening e-health infrastructure and reducing territorial disparities are essential for improving system resilience and achieving sustainable regional development.

Table 1 presents the results of the binary logistic regression analysis examining the independent predictors of digital health service utilization. Four variables were entered into the model: place of residence, age, gender, and level of digital literacy. Place of residence emerged as a statistically significant predictor, with urban residents being 2.35 times more likely to utilize digital health services compared to their rural counterparts (OR = 2.35; $p < 0.001$), suggesting that residential location constitutes a meaningful structural determinant of digital health adoption. Age likewise demonstrated a significant inverse relationship with utilization, whereby each unit increase in age was associated with a reduction in the odds of adoption (OR = 0.82; $p < 0.01$), confirming that older individuals are progressively less likely to engage with digital health services. High digital literacy proved to be the strongest predictor in the model, with individuals possessing advanced digital education being nearly four times more likely to utilize digital health services than those with lower levels of digital competence (OR = 3.80; $p < 0.001$), underscoring the critical role of digital skills in enabling health service engagement. Gender, represented as women relative to men, did not reach the threshold for statistical significance (OR = 1.10; $p = 0.42$), indicating that sex alone does not constitute a meaningful differentiating factor in digital health service utilization within this sample. Collectively, the model highlights place of residence, age, and digital literacy as the three substantively and statistically significant predictors of digital health adoption.

Table 1. Binary logistic regression results: predictors of digital health service utilization

Variable	OR (Odds Ratio)	p-value
Urban vs Rural	2.35	<0.001
Age	0.82	<0.01

Variable	OR (Odds Ratio)	p-value
Women vs men	1.10	0.42
High digital education	3.80	<0.001

Source: compiled by the author based on the survey

The combined chi-square and logistic regression analysis reveals that the adoption of digital governance in healthcare is driven primarily by socio-territorial (urban/rural), demographic (age), and educational (digital literacy) factors. The results confirm the hypothesis of a structural digital divide, with a direct impact on access to healthcare services and on system resilience.

Urban respondents predominate (66%), which suggests a possible overrepresentation of the population with better access to digital infrastructure. Figure 2 presents the sample structure according to the residential environment and sex of respondents. The results indicate that the majority of participants come from urban areas, representing 66% of total respondents, while rural areas account for 34%. From the perspective of sex distribution, men constitute 60% of the sample and women 40%. Male respondents predominate in urban areas (38%), compared to women (28%). In rural areas, a lower share is observed for both men (22%) and women (12%). These results suggest a possible overrepresentation of the urban population within the research, which may influence the overall level of access to and use of digital technologies, given that digital infrastructure is generally more developed in cities. Furthermore, the unequal distribution between urban and rural areas may reflect existing differences in internet access, availability of electronic services, and degree of digital literacy. Therefore, the results must be interpreted taking into account these socio-territorial particularities.

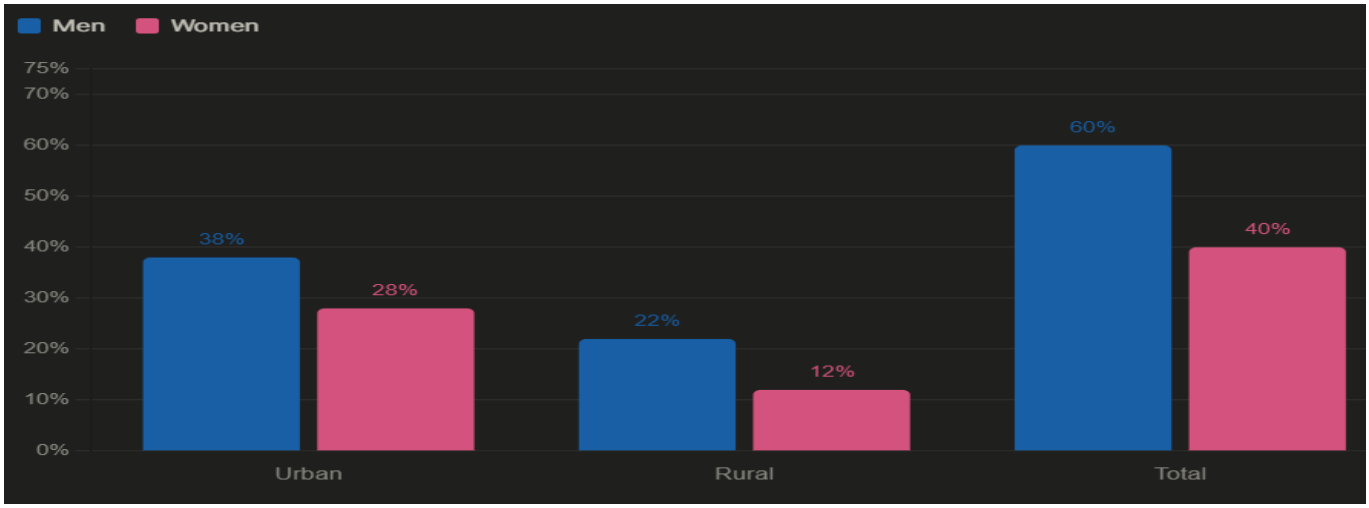

Fig. 2. Distribution of respondents by residential environment and sex, %

Source: compiled by the author based on the survey

A significant decline in utilization is observed with increasing age ($p < 0.05$ suggested). Figure 3 highlights the relationship between respondents' age and the degree of digital health service utilization. The data show that young people aged 18 to 29 record the highest level of digital service utilization, with a share of 72% for high utilization and only 8% for low utilization. The 30–44 age group also presents a high level of utilization (65%), though slightly lower compared to the youngest group. Among respondents aged 45 to 59, high utilization drops to 48% and low utilization increases to 20%, indicating a progressive decline in engagement with digital services.

The lowest values are recorded in the over-60 age group, where only 30% frequently use digital health services and 35% exhibit a low level of utilization. These results demonstrate the existence of an inverse relationship between age and the use of digital technologies, suggesting that older individuals encounter greater difficulties in accessing electronic services.

The identified differences may be associated with the level of digital competencies, access to technology, and the degree of familiarity with electronic platforms. The results support the hypothesis of statistically significant differences between age groups ($p < 0.05$).

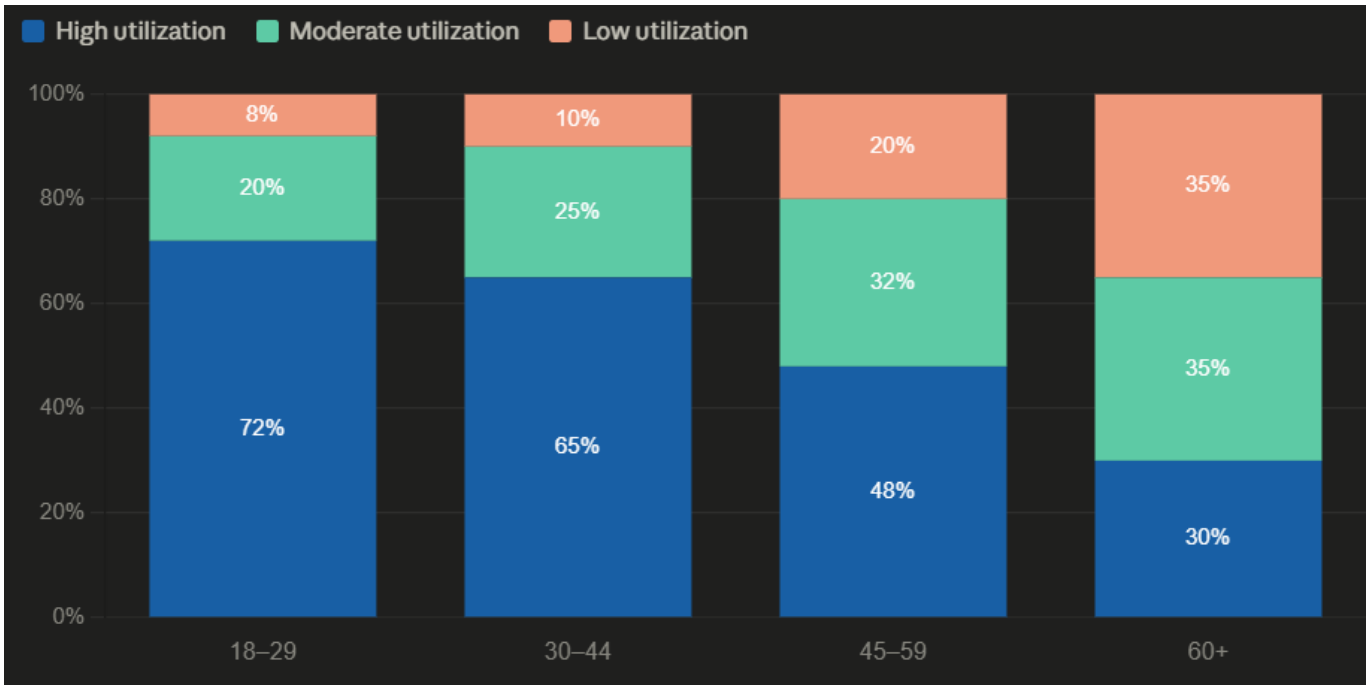

Fig. 3. Distribution by age group and level of digital health service utilization, %

Source: compiled by the author based on the survey

Fig. 4 analyzes the differences between urban and rural areas regarding the perception of smart governance and digital services. The results indicate a considerably higher level of trust and utilization in urban areas compared to rural areas.

With regard to trust in e-governance systems, urban respondents record an average of 78%, while in rural areas the level stands at only 52%. Even more pronounced differences are observed in access to digital services, where urban areas reach 81%, compared to 45% in rural areas.

Concerning the use of artificial intelligence in healthcare, 69% of urban respondents perceive these technologies positively or make use of them, while in rural areas the percentage is only 38%. These discrepancies highlight the existence of a significant digital divide between the two residential environments.

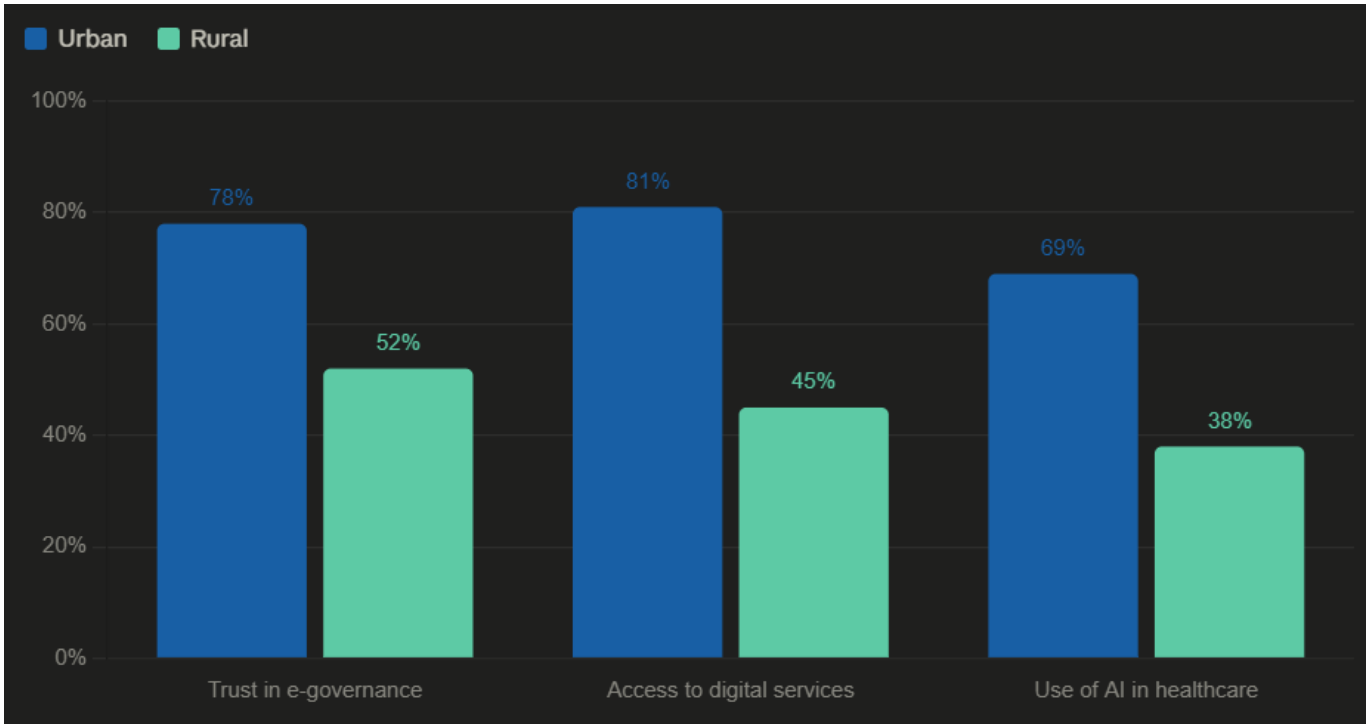

Fig. 4. Perception of Smart Governance (Urban, Rural), %

Source: compiled by the author based on the survey

The results suggest that better-developed digital infrastructure, increased internet access, and higher levels of digital literacy in urban areas contribute to a more favorable perception of smart governance. In contrast, rural areas continue to face limitations related to accessibility and digital inclusion, which may affect the efficiency of electronic public service implementation.

Analysis of study results

The analysis of results highlights that the digital transformation of healthcare systems is significantly influenced by socio-demographic factors and the level of digital infrastructure development. The differences identified between urban and rural areas demonstrate the existence of a structural digital divide,

which affects equitable access to healthcare services and the degree of population integration into digital health ecosystems.

The results of the chi-square test indicate a statistically significant association between residential environment and the use of digital health services ($\chi^2 = 18.76$; $p < 0.001$). This relationship suggests that individuals in urban areas benefit from more favorable infrastructural and technological conditions, including better access to the internet, digital platforms, and e-governance services. The high level of digital service utilization in urban areas (81%) compared to rural areas (45%) reflects the existence of persistent territorial disparities in the digitalization process.

Similarly, analysis by age group reveals statistically significant differences ($\chi^2 = 24.33$; $p < 0.001$), confirming the existence of a generational digital divide. Young people use digital health services more frequently due to higher levels of digital literacy and greater adaptability to emerging technologies. In contrast, older individuals face challenges related to digital competencies, technological accessibility, and the level of trust in digital systems.

The logistic regression results provide a deeper perspective on the determinants of digital adoption. Residential environment represents a significant predictor of digital service utilization (OR = 2.35; $p < 0.001$), meaning that urban respondents are more than twice as likely to use digital services compared to their rural counterparts. Furthermore, the negative coefficient associated with age (OR = 0.82; $p < 0.01$) demonstrates that the probability of using digital technologies decreases with advancing age.

The most important explanatory factor identified in the study is the level of digital education (OR = 3.80; $p < 0.001$). This result highlights that digital literacy represents the central element of effective digital transformation in public health. Individuals with advanced digital competencies exhibit a greater capacity to use e-health platforms, access medical information, and interact with digital services.

The absence of a statistically significant influence of gender ($p = 0.42$) suggests that differences in digital service utilization are determined primarily by structural and educational factors rather than by biological or social characteristics associated with sex.

Figure 5 presents a comprehensive conceptual model illustrating the sequential causal pathways through which smart governance drives digital health transformation, which in turn builds system resilience and generates measurable outcomes oriented toward sustainable regional development. The model is structured around four interconnected pillars - Smart Governance, Digital Health, System Resilience, and Outcomes - linked by solid arrows denoting primary causal relationships, while dashed arrows represent feedback loops and contextual influences operating across the entire framework.

The first pillar, Smart Governance, establishes the foundational enabling environment and encompasses four core dimensions: data-driven decision-making supported by evidence-based policies and real-time monitoring and evaluation; integrated digital infrastructure ensuring interoperability of systems

and data standards and sharing; citizen engagement and participation through co-creation of policies and transparent communication; and transparency, ethics, and accountability grounded in data protection, privacy, trust, fairness, and institutional legitimacy.

The second pillar, Digital Health, receives governance inputs and operationalizes them through four functional components: digital health services delivered via eHealth platforms, telemedicine, and mobile health; data analytics and artificial intelligence encompassing predictive analytics and AI-enabled clinical decision support; integrated health information systems built on electronic health records and interoperable data exchange; and digital health literacy and inclusion initiatives aimed at building skills, competencies, and ensuring equitable access across population groups.

The third pillar, System Resilience, captures the health system capacities generated through digital transformation, organized across four dimensions: preparedness through risk monitoring and early warning systems; adaptive capacity via flexible processes and learning health systems; response capacity ensuring continuity of care and resource optimization; and recovery and sustainability oriented toward system strengthening and long-term development goals.

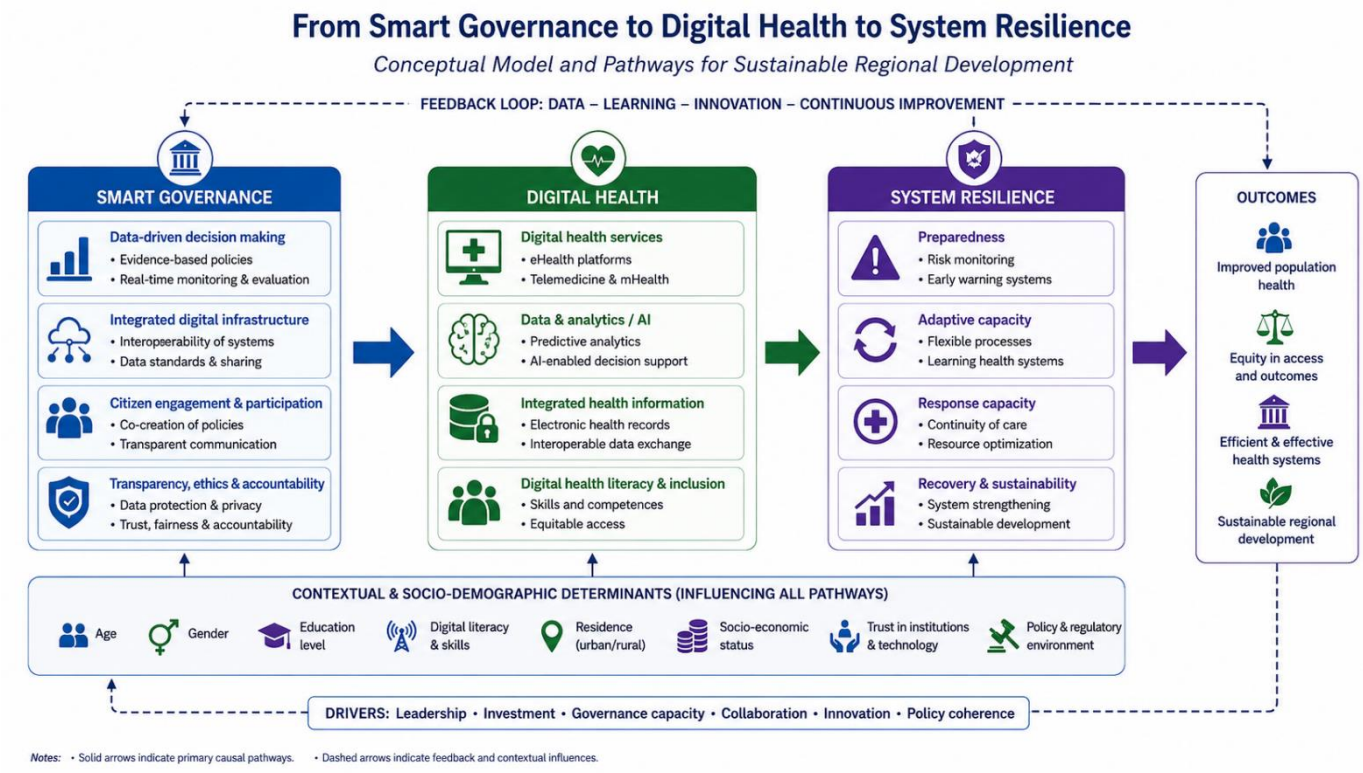

Fig. 5. An integrated framework linking smart governance, digital health, and system resilience: contextual determinants and outcomes

Source: Elaborated by author

The fourth pillar, Outcomes, represents the ultimate objectives of the model, comprising improved population health, equity in access and outcomes, efficient and effective health systems, and sustainable regional development.

Underpinning all four pillars is a horizontal layer of contextual and socio-demographic determinants identified as influencing all pathways simultaneously. These include age, gender, education level, digital literacy and skills, place of residence (urban/rural), socio-economic status, trust in institutions and technology, and the policy and regulatory environment. A second foundational layer identifies the systemic drivers activating the entire framework, namely leadership, investment, governance capacity, collaboration, innovation, and policy coherence. A continuous feedback loop running across the top of the model - labeled as data, learning, innovation, and continuous improvement - underscores the dynamic and iterative nature of the framework, whereby outcomes and system experiences feed back into governance processes and health system design over time.

Implications for public policy (EU and Republic of Moldova)

The study results highlight the existence of significant disparities in the adoption and utilization of digital health services, determined primarily by residential environment, age, and level of digital literacy. These findings are consistent with the international literature on the digital divide in healthcare, which emphasizes that digital transformation does not automatically produce equity, but may instead accentuate existing inequalities if not supported by appropriate public policies.

The data obtained confirm that smart governance represents a determining factor in healthcare system performance; however, its effectiveness is conditioned by digital infrastructure and institutional capacity. The significant urban–rural differences indicate that the implementation of e-governance and digital health services remains uneven, which limits the potential for systemic resilience.

For the Republic of Moldova, this result suggests the need to strengthen digital infrastructure in rural areas, including through the expansion of broadband connectivity, interoperability of medical records, and the development of integrated e-health platforms. In the EU context, these results are aligned with the objectives of the **Digital Decade 2030**, which promotes universal access to digital public services [6][8][9].

The logistic regression results show that age and digital education are significant predictors of digital health service utilization. This indicates a risk of digital exclusion among the elderly population, which may amplify inequalities in access to medical services.

In this context, public policies must include:

- **digital literacy programs for the elderly population [11]**;
- **development of age-friendly digital interfaces** (age-friendly e-health systems);
- **integration of human assistance into digital services** (hybrid models).

For the EU, these recommendations are consistent with the principles of the **European Pillar of Social Rights**, which promotes equal access to essential services, including healthcare.

The study shows that digitalization is perceived as a resilience factor in crisis situations. However, its effectiveness depends on the level of digital maturity of the system. Resilience is not uniformly distributed, but rather higher in urban areas and among the population with advanced digital competencies.

This suggests that the resilience of healthcare systems must be understood as a multidimensional concept, encompassing:

- digital infrastructure;
- human capital;
- institutional trust;
- data-driven governance capacity.

The results indicate a moderate openness among the population toward the use of artificial intelligence in healthcare; however, the level of trust varies significantly depending on digital education. This highlights the importance of implementing **trustworthy AI** frameworks, based on transparency, explainability, and personal data protection.

In the EU, these requirements are already reflected in the **AI Act**, which may serve as a regulatory model for the Republic of Moldova as well. At the same time, the promotion of open data in healthcare can contribute to improvements in research and decision-making.

The urban–rural disparities highlighted in the study suggest that digitalization can become both a factor of regional convergence and of polarization, depending on the mode of implementation. To avoid the accentuation of inequalities, an integrated smart regional development approach is required, encompassing:

- investment in rural digital infrastructure;
- development of telemedicine services;
- integration of digital health into regional development strategies;
- inter-institutional cooperation between healthcare, education, and local governance.

Conclusions

Overall, the study results confirm that the digital transformation of public health contributes significantly to increasing system efficiency and resilience, while simultaneously generating new forms of digital inequality. Thus, the success of smart governance depends on the capacity of states to integrate technology with inclusive social policies oriented toward equity, digital education, and balanced regional development.

From the perspective of public health and smart governance, the results confirm that digitalization can contribute significantly to strengthening the resilience of healthcare systems by improving access to services, optimizing administrative processes, and facilitating data-driven decision-making. Nevertheless, if public policies are not oriented toward reducing digital inequalities, digital transformation risks accentuating social and territorial polarization.

In the context of the Republic of Moldova, these results underscore the need to develop digital infrastructure in rural areas, expand digital literacy programs, and strengthen integrated e-health systems. At the European level, the study's conclusions are compatible with the objectives of the Digital Decade 2030 strategy, which promotes digital inclusion, systems interoperability, and the development of accessible and resilient digital public services.

The results of the study demonstrate that digitalization plays a crucial role in strengthening the resilience, accessibility, and efficiency of healthcare systems. The findings confirm that the adoption of digital health services is significantly influenced by socio-demographic factors such as age, place of residence, and digital education. Respondents from urban areas and individuals with higher levels of digital literacy show substantially greater use of e-health services, while older populations and rural communities remain at risk of digital exclusion.

Policy recommendations

Recommendations for the European Union

At the European level, policy action should be directed along five interconnected priorities. First, the European Union should intensify efforts to reduce the digital divide between urban and rural regions by channeling cohesion and regional development investments toward broadband infrastructure, affordable internet access, and digital accessibility for vulnerable groups. Alongside infrastructure, EU institutions should support large-scale digital literacy programs targeting elderly populations, low-income groups, and citizens with limited technological skills, given that improving digital competencies is a prerequisite for ensuring equitable access to e-health services.

With respect to health systems, the development of interoperable healthcare platforms across member states should remain a strategic priority, as standardized digital health infrastructure would facilitate cross-border cooperation, improve data exchange, and strengthen institutional resilience during public health crises. Complementing this, the EU should continue advancing regulatory frameworks for the ethical and responsible implementation of artificial intelligence in healthcare, ensuring that transparency, cybersecurity, data protection, and algorithmic accountability are embedded as central components of digital governance. Finally, European institutions should encourage broader integration of big data

analytics, AI technologies, and digital public administration tools in order to enhance policy efficiency, transparency, and evidence-based decision-making across member states.

Recommendations for the Republic of Moldova

At the national level, the Republic of Moldova faces a distinct set of priorities shaped by its specific developmental context and EU accession trajectory. The most pressing need is the expansion of high-speed internet infrastructure and digital connectivity in rural communities, as reducing territorial disparities constitutes a fundamental precondition for achieving equitable access to digital healthcare services. In parallel, national authorities should accelerate the implementation of integrated electronic health records, telemedicine platforms, and centralized health information systems, measures that would improve healthcare continuity, administrative efficiency, and patient monitoring across the country.

Equally important is the introduction of comprehensive digital education programs for both citizens and healthcare professionals, with particular attention to elderly populations and socially vulnerable groups who face the highest risks of digital exclusion. Public institutions responsible for healthcare and digital governance should simultaneously strengthen their administrative capacity, cybersecurity mechanisms, and technical expertise in managing complex digital transformation processes [12]. To ensure long-term sustainability, Moldova should continue harmonizing its digital governance and healthcare policies with EU standards and the objectives of the Digital Decade 2030 agenda, an alignment that would facilitate institutional modernization, international cooperation, and sustainable digital development. Finally, authorities should implement transparent communication strategies regarding data protection, cybersecurity, and the concrete benefits of digital healthcare, as building and sustaining public trust is essential for improving the adoption of both e-governance and e-health services.

In conclusion, digital transformation represents not merely a technological process but a strategic pillar of sustainable development, social inclusion, and public health resilience. Its long-term success depends on the capacity of governments to combine technological innovation with inclusive, citizen-oriented public policies that leave no segment of the population behind.

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