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Exploring The Prospects And Challenges Of Artificial Intelligence In Public Service Delivery: A Qualitative Study Of Developing States

Sarumi Fausat Remilekun & John Tosin Funsho
Department of Politics and International Relations,
Faculty of Management and Social Sciences
Lead City University Ibadan, Oyo State Nigeria.
Corresponding Author: Sarumi Fausat Remilekun

ABSTRACT
The paper is a qualitative research that addresses opportunities and challenges of artificial intelligence (AI) in the provision of public services throughout the developing states, which will be selected, between 2015 and 2025. Conducted in the context of interpretivist philosophy and based on the four research questions, the work researches how the public officials view AI, what obstacles prevent its implementation (both institutional and infrastructure-wise), what socio-political implications the use of AI in reforms has, and what are the best examples in current projects. Based on the systematic review, which examined 25 peer-reviewed articles, the results indicate that there is a broad agreement among the public officials that AI is indeed a useful tool that can enhance efficiency, transparency, and responsiveness. Nevertheless, the low levels of digital infrastructure, regulatory gaps, lack of technical capacity, and institutional resistance are still important setbacks. In addition, unless competent AI reforms are sensibly and favourably introduced, the initiative threatens to widen the digital divide and raise distrust among citizens. The research finds lessons that can be acted upon by the AI initiatives in Nigeria, South Africa, Mexico, and Kenya, such as the necessity to pilot program, the capacity building, the regulatory checks, and participatory governance. Such lessons can be added to the emerging understanding of AI governance especially in the Global South by making useful recommendations on how policymakers thinking of leveraging AI in their institutions can do so without reducing equity and accountability.

Keywords: Artificial Intelligence, Public Service Delivery, Digital Transformation, Public Sector Reform

INTRODUCTION

Artificial Intelligence (AI) is a trending force of change in the delivery of the public service worldwide. Applications of AI like chatbots, predictive analytics, and intelligent decision-support systems have been incorporated into government processes to streamline administrative activities, make them accountable and responsive [1]&[2]. In the developed nations, the buying of AI has led to quantifiable results. As another example, AI-based fraud-detecting systems in the United Kingdom alone are reported to have reduced the losses by more than 300 million since 2016[3]. Nonetheless, the application of AI in developing countries has been characterised by issues of infrastructural gaps, skills shortages, and ethical issues that purport to intensify the prevailing governance issues [4].

Bureaucracy and inefficiency, corruption, and low access to quality services are some of the chronic cases in developing states when it comes to the provision of public services[5]. The opportunities in which AI can find a solution to these issues are splendid, which has been seen in pilot projects. When applied in civil service administration in Nigeria, in the state of Cross River, the arrival of digital tools led to the decrease in service delivery time by 27%, however, a lack of the policy frameworks called into question sustainability [6]. Likewise, the digital transformation initiative in South Africa enhanced social grant availability yet created privacy concerns about information security and algorithm bias among individuals [7]. These instances highlight that even though AI has the potential to speed up reforms, its blind implementation can strengthen social inequalities and undermine the trust in the institutions of governance.

Despite these challenges, governments in developing contexts remain under pressure to modernise services in alignment with the United Nations Sustainable Development Goals, particularly Goal 16, which emphasises building effective, accountable institutions [8]. Yet, evidence suggests that many AI-driven reforms fail to adequately consider local socio-economic realities, cultural expectations, and institutional capacities [9]. For instance, in Kenya, automated tax administration systems were introduced to combat revenue leakages but inadvertently excluded informal sector operators who lacked digital literacy, leading to protests and revenue shortfalls [10]. These consequences highlight the need for contextualised studies that interrogate both

the prospects and pitfalls of AI deployment in public service delivery.

A major gap in the literature is the limited qualitative exploration of how public servants, technology experts, and citizens in developing countries perceive and experience AI interventions [11]. Most existing research emphasises technical feasibility and economic outcomes while neglecting the subjective experiences that shape adoption and legitimacy [12]. As an example, research in the Mexican and Asian regions has demonstrated that a suspicious attitude to the provision of AI-enabled services by the citizens of these countries can considerably slow down the implementation of the projects, irrespective of whether the technological environment is ready to meet the level of the service offering [13], [14]. This is why the perceptions, expectations, and dynamics within an institution matter in informing the AI-driven transformations.

Also, the AI dissemination in the public sphere in developing states is not even since each of them should implement it at a different rate, which causes knowledge gaps about exemplary practices and possible unintentional outcomes [15]. In Nigeria, efforts toward introducing automation in land registration records have been characterised with records of breakdown and failure to agree on the ownership of data, bringing matters of transparency and accountability into serious doubt [16]. Similarly, in India and Bangladesh, access to libraries through AI services was introduced, to address information access disparities, yet, soon, it faced pushback by employees as they feared a loss of their job and were not trained [17]. These experiences indicate that unless institutions make proper arrangements and incorporate relevant stakeholders in AI endeavors, such efforts can have counterproductive effects.
There have been ethics and regulatory issues surrounding the use of AI in a public governing context such as privacy issues to data, bias in algorithms, and transparency in decision-making as well [8]. As a case in point, the predictive policing algorithms deployed in the Sub-Saharan African regions were subsequently revealed to over-police marginalised communities, triggering a revolt against law enforcement agencies and the loss of trust in them [19]. Such reality represents the necessity of urgent measures to consider not just the technological aspect of AI application in developing states, but also the social and political issues.

Nevertheless, even though AI-based public service renewals are becoming an increasingly serious investment in developing states, there is still a severe lack of knowledge regarding the opportunities and issues of such technologies in the specific context. The existing literature is biased in high-income nations or which generally show aggregate assessments that conceal local nuances [20]. This absence of context-aware searches inhibits the capability of policymakers to establish adaptive, inclusive, and responsible AI policy. As such, this research attempts to examine the way in which the actors and stakeholders within the public sector in developing states view, experience and react to the adoption of AI in delivery of services within the public sector, in hopes of exposing the challenges, opportunities and institutional processes that inform such a process. Based on the problem statement, the following research questions are formulated to guide this study:

i. do public officials perceive the integration of artificial intelligence in service delivery within developing states?
ii. What institutional and infrastructural challenges hinder effective adoption of AI in public administration?
iii. What are the socio-political implications of AI-driven reforms on service accessibility and equity?
iv. What best practices and limitations can be identified from existing AI-based initiatives in selected developing states?

This study is justified by the urgent need to generate context-specific insights into how artificial intelligence has shaped, and continues to shape, public service delivery in developing states between 2015 and 2025—a period marked by rapid digital transformation and heightened pressure to meet the Sustainable Development Goals. While AI has been widely promoted as a catalyst for public sector efficiency, evidence reveals significant gaps in understanding its practical challenges, socio-political consequences, and the perceptions of frontline officials who implement these systems. By focusing on the 2015–2025 timeframe, this research captures a critical decade in which numerous developing countries experimented with AI-enabled reforms in areas such as tax administration, social services, and civil registration. The scope covers institutional, infrastructural, and socio-political dimensions across selected developing states, thereby offering nuanced evidence to inform adaptive policies, mitigate unintended harms, and leverage AI responsibly for equitable governance.

LITERATURE REVIEW

Artificial Intelligence

Artificial intelligence (AI) is loosely described as the ability of a machine and computer systems to rival the human characteristics of intelligence in terms of learning, reasoning, and solving problems, perceiving things and understanding language. AI represents a collection of technologies that allows systems to analyse the torrents of data and make independently evolving decisions [18]. AI is important in pattern recognition process and predictive analytics as part of

making complex decisions in government [27]. As noted in a study AI is not only about automating something routine, but it also, thanks to real-time insights made by the AI, enhances human judgment [1]. A study makes the strongest argument through artificial intelligence that involves natural language processing, machine learning, intelligent automation, and robotics to transform governance in the public sector context [28]. The author also emphasises the role and significance of AI as the determining factor of the fourth industrial revolution by providing efficiencies and innovations in service delivery unlike in other periods [15]. Accordingly, AI is not a single, homogeneous technology but rather a kinetic toolkit and process that can redefine the way governments design, deliver and evaluate their public services.

Public Service Delivery

Public service delivery can be described as delivery of government goods, services and entitlements to the population such as education, healthcare services, infrastructure, and administrative assistance to the population. Another study explain that it is an operational articulation of governance and devlopment of public value [4]. According to the study carried out by [3], accessibility, transparency of the work, accountability, and responsiveness to the needs of citizens are the elements that influence the efficiency of service delivery. According to [6], it can be defined as the processes as well as outcomes by which the social responsibility of the public institutions is sought to be met. According to [16], in the context of developing settings, bureaucracy inefficiency, resource shortage, and structural inequalities tend to restrict the delivery of public services. Enhancing service delivery is a constituent of Sustainable Development Goals or rather part of goals aiming to alleviate poverty and inequality [5].

Role of Artificial Intelligence in Public Service Delivery

Artificial Intelligence has become an efficient instrument to increase productivity and responsibility within the public administration. According to [26], AI enabled Software as a Service (SaaS) was effective in enhancing automation of workflow and significant reduction in processing times in the Nigeria e- government system. According to [26], virtual assistants and chatbots powered by AI are being used to process citizens queries and requests services, cut down the waiting time and the human error cases at the service centres. According to [7]. in South Africa, the utilisation of AI-based data analytics in digital transformation projects improved the deployment of social welfare benefits. These instances demonstrate how AI can solve long-lasting inefficiency and spur more rapid and stable service delivery, which is an urgency in the developing states with a growing population and restricted administrative possibilities.

Other than efficiency, AI can be used to enhance transparency, and fight corruption. A study claim, AI could enhance financial accountability, which is possible when anomalies are detected and red flags on fraudulent transactions are raised in real-time [28]. Another study presents the results of experiments by tax administration systems in which machine learning models enhanced revenue collection and decreased the number of discretional manipulation opportunities [10]. AI-based procurement systems have also gained ground in Kenya and India, where the country has been more confident in awarding tenders [15]. Nonetheless, such good news proceeds to be regularly accompanied by threats: the absence of clarity in algorithms, unfair data, and lacking regulation may destroy trust and increase inequalities [23]. Such ambivalence promise and peril is the reason it is imperative to explore the trade-offs involved among developing states by innovation and accountability.

The relationships between governments and citizens are also transformed because of the adoption of AI. According to [13], on the positive side, the concerns about the privacy of the data used and the displacement of workforce had a profound negative impact on the perceptions of people in Mexico regarding the use of AI in delivering the public services. A study [12] noticed comparable suspicions in the context of urban governance in the sense that people were doubtful of the procedural decision-making equity of automated decisions. Another study stress that the effectiveness of AI initiatives is frequently associated with how the technological design concept conforms to institutional norms, social values, and cultural expectations [9]. In another example, discrete definitions of property rights, along with insufficient stakeholder involvement, caused conflict and litigation when applying AI tools in order to simplify land administration in Nigeria [16]. The examples show that it is important to learn the social-political and institutional context. It is precisely these complex dynamics—where technological promise meets practical reality—that this study aims to explore in depth.

THEORETICAL REVIEW

To meaningfully examine how artificial intelligence influences public service delivery in developing states, this study draws on two theoretical frameworks: the Technology Acceptance Model (TAM) and the Diffusion of Innovations Theory (DOI). Technology Acceptance Model is another model designed by Fred Davis in 1986 and it centers on how the perceived usefulness and perceived easiness play a great role in determining how individuals adopt new technology [29]. In comparison, the Theory of Diffusion of Innovations, which was postulated by Everett Rogers in 1962, introduces a method of how a new innovation spreads more broadly in a social system

with time via means of communication and social influence [30]. In combination, the theories provide useful prisms to interpret micro and macro levels of acceptance decisions on the one hand by public officials and macro-level institutional processes on the other hand giving rise to AI adoption in the domain of public administration.

Technology Acceptance Model (TAM) plays a special role when it comes to examining the attitude of the populace officials concerning the use of AI to deliver services. A study agrees by arguing that people are more ready to use a technology when they view it as being helpful in doing their job better and one that is not complicated to use but does not involve one in doing a lot of things [29]. There is evidence by [26] that in the case of developing states, the adoption of AI-powered e-governance solutions among public officials was higher as employees in the Nigerian government were willing to use such systems in case of proper training and visualisation of the real benefit of the given implementation in administrative easing of the bottlenecks. Likewise, [27] studied that the success of the use of AI chatbots to improve e-government services was affected by perceived difficulty of use. Using TAM in this work permits to provide a detailed explanation of why the officials in the local governments accept or reject the use of AI tools, which will help to understand how the perceptions, knowledge, and support within an organisation precondition the implementation of technologies into resource-insufficient settings.

Diffusion of Innovations Theory (DOI) provides a more extensive point of view on the way AI innovations are spreading over the institutions and societies. It is stated that the diffusion process is also affected by the attributes of innovation (e.g. relative advantage, compatibility), communication channels, time, and the structure of the social system [23]. Such elements of public administration can give rise to the explainability of why some AI agendas go up the hill successfully, and some remain dormant. As an illustration, a comparative case study conducted by [11] demonstrated that early adopters within the institution of the public agency were especially important in terms of legitimising AI tools and convincing reluctant fellow users. In the case of service delivery in South Africa, A study reported that there was increased digitalisation because people felt that AI is compatible with the established workflows [7]. The use of DOI in the proposed research would allow tracking the dissemination of innovations through policymaker networks, technology vendors, and citizen networks to discover what institutional and cultural barriers to adoption of AI in developing locations.

METHODS AND MATERIALS

In the research approach and design section, the study embraces interpretivism, particularly through a systematic review methodology. This philosophical approach is appropriate where one seeks to comprehend the complex perceptions, institutional relations and socio-political intrigues of embracing the use of artificial intelligence in the delivery of public services in the developing states. To accommodate the scientific limitations of the study relating to synthesis of existing evidence and policy experiences, the method of secondary data collection will be the preferred method as it allows a rigorous analysis on the current trends, prospects and challenges on the implementation of AI. The archival research design has been applied, whereby the systematic examination of policy documents, academic journals, government reports and empirical studies is applied to identify patterns and discussions of AI integration in the sphere of public administration between 2015 and 2025.

Data Description and Sources

The study conducts an in-depth analysis of secondary data sources spanning from 2015 to 2025, capturing a critical decade of AI experimentation in public governance. The source materials are the peer-reviewed journals, policy briefs, government publications, and reports of empirical evaluation. The strict selection criteria make the materials raise the concerns on relations between artificial intelligence and public service delivery in the developing states directly, which increases the validity of the findings. The sources that were not related, were not of high empirical rigor, or their methodology was not transparent were eliminated as a result of using exclusion criteria to preserve the integrity of the review. The fastidiousness of conventionally PRISMA strengthens presence and the tooling of the study that focuses on the framework of systematic exploration of the literature and the validity and duplicate maneuver of the research along with giving directions to the entering researchers who study comparable circumstances

Search Strategy

A comprehensive review was conducted using electronic databases, employing targeted keywords to locate relevant literature on the topic, following the method outlined [31] and [32]. The search spanned **2015 to 2025**, covering journals, government publications, and highly relevant websites accessible through platforms such as Google Scholar, DOAJ, Inderscience, Taylor and Francis, and Scopus. This approach aimed to capture the multidimensional factors—technical, organisational, and socio-political—influencing AI adoption and its implications for public service delivery. The review adhered to a systematic approach in selecting

publications that met the inclusion criteria (see Table 1).

Table 1: A 10-Year Search

Year under review	2015–2025
Search Terms	These terms were used in combination with Boolean operators (AND, OR) to create search strings tailored to each database: "artificial intelligence public administration," "AI in public service delivery," "e-governance and AI," "AI adoption challenges developing countries," "AI-enabled governance," "AI and service delivery efficiency," "AI ethics public sector," "algorithmic decision-making in government," "AI-driven public sector reforms," and "AI perceptions public employees."
Sample Journals	- *Public Management Review - International Journal of Public Administration - Government Information Quarterly - Asia Pacific Journal of Public Administration - Administrative Sciences - Sustainability - Journal of Science and Technology Policy Management - Ai & Society - Emerging Sciences Journal - Global Knowledge, Memory and Communication*
Database	Google Scholar, DOAJ, Inderscience, Taylor and Francis, Scopus

Initially, the study identified 40 articles pertaining to the role and challenges of artificial intelligence in public service delivery across developing states. After applying the inclusion and exclusion criteria, 18 articles were excluded due to irrelevance, lack of empirical grounding, or duplication. A further screening of the full texts led to the retention of 22 highly relevant articles, which were reviewed to capture the emerging trends, contextual factors, and institutional experiences shaping AI adoption.

Table 2: A 10-Year Assessment – Inclusion and Exclusion Criteria

Inclusion criteria	**Exclusion criteria**
Studies published between 2015–2025	Studies not focused on AI in public service delivery
Empirical studies within the context of developing states	No full-length peer-reviewed research
Full-length peer-reviewed publications	Not published in English
Published in English	Duplicated or non-relevant
Available in selected electronic databases	

The systematic review flow diagram based on **PRISMA guidelines** displays the number of records identified, screened, and included in the synthesis as depicted in Figure 1.

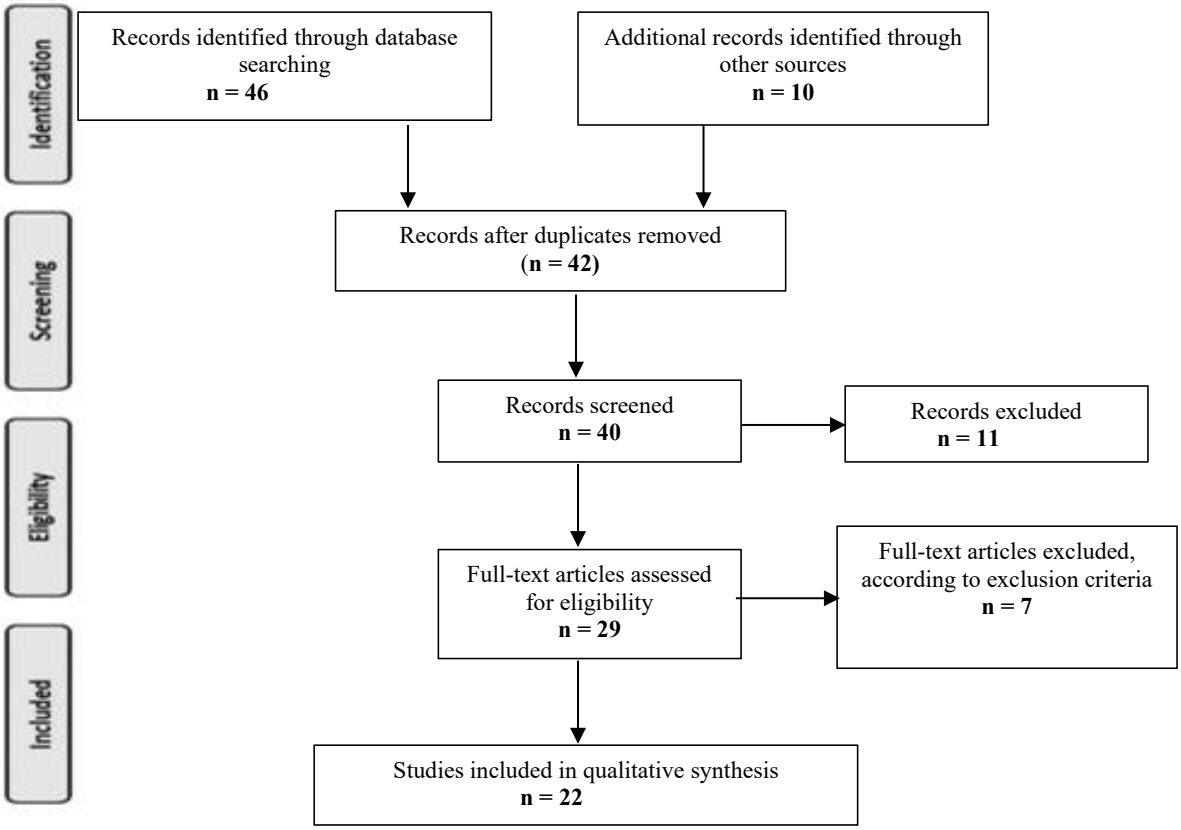

Figure 1: Systematic Review Flow Diagram (PRISMA Guidelines)

This study exclusively selected journals and reports indexed in reputable databases such as Google Scholar, DOAJ, Inderscience, Taylor and Francis, and Scopus, as presented in Table 3:

Table 3: Number of Selected Publications

SN	Publisher(s)	No. of Papers Assessed for Eligibility (N=40)	No. of Papers Selected for Qualitative Synthesis (N=22)
1	Google Scholar	13	10
2	DOAJ	5	2
3	Inderscience	10	5
4	Scopus	4	2
5	Taylor & Francis	5	2
6	Springer Nature	3	1
Total		**40**	**22**

ANALYSIS OF RESEARCH QUESTIONS

Four research questions were established to guide this study titled *Exploring the Prospects and Challenges of Artificial Intelligence in Public Service Delivery: A Qualitative Study of Developing States*, delineating the scope of inquiry and objectives within the time horizon of **2015 to 2025**. These questions serve as focal points for investigating multiple dimensions of artificial intelligence adoption, including how public officials perceive AI, the institutional and infrastructural challenges affecting its implementation, the socio-political implications for service accessibility and equity, and the lessons emerging from existing AI-based initiatives across selected developing countries.

Analysis of Research Question 1

How do public officials perceive the integration of artificial intelligence in service delivery within developing states?

Four themes emerged for answering this research question on the perceptions of public officials regarding AI integration in public service delivery in developing states:

Theme 1 – Perceived Usefulness and Efficiency

The first theme centres on the belief among public officials that AI can significantly improve efficiency and productivity in government operations. In Nigeria, a number of civil servants have held an optimistic expectation regarding the ability of AI to automate routine work, minimise delays, and speed up responsiveness in services [26]. The latter example is the faster processing of documents with the use of artificial intelligence-based systems in e-governance projects [16]. Even in South Africa, the AI-powered analytics were regarded as a game-changer to distribute social grants more freely and effectively [17]. But, on the one hand, there was a high degree of perceived usefulness; on the other, it was also reported that it is not so effective without the stable funding and sufficient technical resources. It shows that the positive attitudes towards the usefulness of AI are accompanied by doubts about the ability of the governmental institutions of the developing states to sustain and reproduce these tools successfully.

Theme 2 – Concerns About Data Privacy and Ethical Risks

The second theme involves apprehensions around data security, surveillance, and ethical dilemmas. A large number of public authorities were afraid that AI-embodied systems might invade human privacy or cause some trivialisation of confidential information [1]. As an example, in Kenya and Nigeria, public employees have brought up algorithmic biases and algorithmic black box issues in automated decision-making [24]. According to [4], there were concerns among the officials that AI might strengthen the existing inequalities in the system by implementing any bias that there may be at the level of public services. These views conform to a more general mistrust as, lacking strong ethical principles and regulatory control, the adoption of AI might undermine trust in the government machinery. This is why it is highly significant to implement powerful accountability systems and the adoption of technologies.

Theme 3 – Skills and Capacity Gaps

The third theme focuses on the perceived lack of technical capacity and readiness within public institutions. Some scholars in their study noticed that authorities of most developing nations were not ready to employ and administrate AI technologies successfully [11]. Public servants in Nigeria indicate insufficient opportunities to train, appropriate exposure to complementary AI tools, and excessive reliance on outside consultants [26]. In the same way, in the case of South Africa and Ghana, the government representatives stated that confidence in long-term sustainment of AI-driven reforms was hampered by capacity shortages [34]. Such perceived lack of competencies has interfered with the full embrace of AI by some officials, who are instead scared of facing the failure of implementation and suffering reputational losses. These issues show that constant professional growth and capacity-building programmes must be provided.

Theme 4 – Institutional and Cultural Resistance

The fourth theme revolves around resistance to change and scepticism rooted in institutional culture.

Many officials reported that that there was a hindrance in the integration of AI into established work processes in terms of a hierarchical system of decision-making and established bureaucracy norms [3]. To give an example, certain managers in Nigerian ministries expressed their doubts about whether AI would conform to the existing processes and systems of accountability [16]. In Mexico and Kenya, the authorities referred to cultural resistance, in which employees were afraid of losing their job or status because computer technology was about to replace manual labour [13]. These images show that when the prospective advantages of AI are not rejected, cultural and institutional inertia may hinder its take-up. This theme reacts to an inclusive approach of change management that involves employees and establishes trust in technology reform processes.

Analysis of Research Question 2

What institutional and infrastructural challenges hinder the effective adoption of artificial intelligence in public administration within developing states?

Four key themes emerged for answering this question:

Theme 1 – Inadequate Digital Infrastructure

A major barrier to AI adoption is the absence of foundational digital infrastructure such as reliable internet, power supply, and computing systems. The digital transformation is held back in jurisdictions such as Nigeria, Kenya, and Uganda due to persistent infrastructural shortfalls [26]. The AI technologies and the government agencies are incompatible most of the time. A study indicated that such infrastructural shortfall makes it a structural cause of disjointed and inadequately planned reform processes and thus, restrains the scalability of AI plans. Such circumstances compromise the sustainability of AI-enabled platforms negatively in the long-term run, particularly in rural or low-resource areas [5].

Theme 2 – Weak Institutional Coordination and Governance

Another prominent challenge is poor coordination between government departments and agencies. It was observed by a substantial number of officials that AI project implementation has been stopped by institutional silos, bureaucracy, and misunderstanding of the mandates [9]. As in the case of the Cross River State of Nigeria, where the tasks of IT and service delivery agencies overlapped, AI tools implemented in civil service were not deployed since they awaited the decision of those agencies [6]. According to [28], until then, the policy guidance would be centralised, and such a move would help to ensure that AI initiatives are not disparate, short-lived, and improperly assessed. This shows that there should be well organised governance frameworks that can be used to standardise digital transformation initiatives in the society public institutions.

Theme 3 – Funding Constraints and Budget Prioritisation

Public officials across various developing states identified limited financial investment as a recurring obstacle to AI deployment. One of the challenges with AI systems is the fact that it needs upfront capital, regular upgrading, and trained workforce which are all limited by strict public budgets [10]. Digital governance budgets are usually pushed out in most of the countries in favour of other development priorities like health and security. A study note that some donor-related targeted AI initiatives also came to premature terminations simply because of the absence of follow-ups in the form of funding or institutional support [24]. These budgetary constraints undermine the deployment of AI tools in the public sector as well as its sustenance

Theme 4 – Regulatory and Policy Gaps

The absence of clear regulatory frameworks for AI is another institutional hurdle. In a number of countries, there is no national policy on the ethical use, data protection, or algorithmic accountability, rather than the policy regarding the procurement of AI systems [25]. In the absence of such legal protection, authorities reserve the fear of incorporating AI fully into sensitive areas charged with the responsibility of societal operations. As an example, in Ghana and Ethiopia, the issue of data privacy held up the implementation of AI in ID verification and tax system [27]. The absence of regulation also reduces the trust of the people and increases the risk of governments either being misused or being involved in a lawsuit.

Analysis of Research Question 3

What are the socio-political implications of AI-driven reforms on service accessibility and equity in developing states?

Four major themes emerged from this question:

Theme 1 – Risk of Widening Digital Inequality

AI-driven public services, while potentially transformative, may inadvertently exclude digitally disadvantaged populations. In rural Kenya and northern Nigeria, officials reported that even the best efforts to reform the delivery of e-services left some local communities behind due to their limited access to the internet or limited COVID-19 digital literacy [26]. Also [17] caution that without equity being the ingredient of the AI systems designs and application, such changes can enhance the socio-economic divide. This is further justification of the importance of inclusive policy frameworks, which pre-suppose digital divides

Theme 2 – Public Trust and Legitimacy

AI reforms often reshape the way citizens interact with the state, which can either strengthen or weaken government legitimacy. Where AI has been deployed transparently—such as in automating welfare benefit

allocations in South Africa—trust in government has improved [7]. However, opaque algorithms or inconsistent service outcomes—such as in Mexico's automated land-use decisions—have generated public backlash and suspicion [13]. This suggests that the perceived fairness and transparency of AI systems directly influence their political acceptability.

Theme 3 – Accountability and Human Oversight

Public officials emphasised that the use of AI in service delivery raises complex accountability questions. In automated decision-making systems—such as tax audits or social benefit eligibility—citizens may struggle to challenge or appeal incorrect decisions, especially in the absence of human oversight [10]. According to [1], when AI is badly controlled, it may hide accountability and loss of democratic control. These issues point to the necessity to incorporate human-in-the loop mechanisms and institutional reviewing procedures in the AI-powered governance.

Theme 4 – Political Influence and AI Deployment

Officials in several states expressed concern that AI tools could be politically manipulated or selectively deployed. However, in a country like Nigeria, some digital platforms have been introduced to urban areas whereas rural territories have been left undeveloped, which indicates unfair distribution according to political or economic forces [15]. In the same note, a study discovered that in Turkey, the city managers were selecting AI projects that could help them to achieve their electoral interests. Such trends emphasise the significance of overseeing whether AI reforms are likely to get lost or hijacked by the elite [12].

Analysis of Research Question 4

What can be learned from existing AI-based initiatives in selected developing states regarding best practices and limitations?

The following four themes emerged:

Theme 1 – Incremental Implementation and Pilot Testing

Successful AI programmes often began with pilot phases before full-scale rollout. A study provided the example of pilot testing of AI-based ID verification tools in Uganda, which gave the possibility to make the necessary adjustments prior to the national scale [2]. On the same note, the use of AI chatbots in civil service portals was one of the first experiments of the African continent nation of Nigeria, which also allowed optimising functionality according to user requests [26]. Authorities highlighted this as pilot programmes are a low-risk setting of adaptation and learning, which is a best practice to be gleaned to the rest of the developing states.

Theme 2 – Stakeholder Engagement and Capacity Building

One of the strongest lessons is the value of participatory planning. Engagement with a wide range of stakeholders, such as consultations with citizens, unions and IT professionals, in Kenya and Ghana served not only to demystify reforms with AI, but also to develop trust [11]. A study emphasised the need to bring frontline participation of civil servants in AI design to enhance ownership and an easier path to adoption [10]. This is also related to the stable capacity building to be less dependent on foreign consultants.

Theme 3 – Public-Private Collaboration

Public-private partnerships emerged as a recurring success factor. The Mexican and South African governments have partnered with technology companies to establish and sustain AI systems monitoring taxes and also tracking one of the most significant global epidemics where every person has been affected [9]. But there were also dangers developed by these alliances like that of vendor lock-in and the inability of the states to have control of what they are fundamentally running. Nevertheless, authorities went along with, such ventures, are better when arranged with transparency, enhance technical delivery and sustainability.

Theme 4 – Monitoring, Evaluation, and Learning Systems

A final theme is the critical role of monitoring and adaptive learning. Countries that integrated real-time data tracking, independent audits, and citizen feedback loops into AI programmes achieved better outcomes. [1]. Projects which lacked such performance benchmarks and feedback systems, conversely, tended not to scale. As an example, various applications of AI to welfare systems in Nigeria and Ethiopia had to face incomplete error correction factors because of the lack of thorough post-implementation analysis [16]. Therefore, assessment systems represent a major attribute to permanent influence and flexibility.

CONCLUSION AND POLICY IMPLICATIONS

This study has demonstrated that while artificial intelligence holds enormous potential to improve the efficiency, transparency, and responsiveness of public service delivery in developing states, its successful integration remains constrained by infrastructural deficits, skills shortages, institutional inertia, and governance gaps. The results showed that the perception of AI among the representatives of the government is generally positive on matters concerning automation of redundant tasks and improvement in accuracy of making choices. None the less, they also raised serious issues regarding the risks on data privacy, digital exclusion of vulnerable communities, and loss of accountability in automated

systems. Findings of projects implemented in Nigeria, South Africa, Kenya, and Mexico also demonstrated that pilot testing, stakeholder engagement, public-private partnerships, and constant monitoring are the key success components. The insights substantiate the idea that AI in public administration is not a mere technology problem but a socio-political change, which demands policy will with a long-lasting commitment.

The governments should follow a strategic path by implementing four priorities to transition to sustainable: first, investing in sufficient digital infrastructure to make AI-based services seem uniformly reachable to urban, rural community members; second, developing an overarching capacity-building program that can give public servants comprehensive skills and abilities in technical and ethical domains to operate and manage AI applications ethically; third, passing clear regulatory guidelines that can legally entrench data protection, algorithmic transparency, and rights of citizens to redress; and the fourth should be building governance systems that enable citizen panels, independent auditing, and feedback mechanisms to track government performance and When implemented in a tactful manner with specific deadlines and budgetary allocations, these policy steps will bolster the enabling circumstances of AI use in the provision of public services and monitory equity, accountability, and democratic imperative.

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