

ORIGINAL ARTICLE



Evaluation of e-Governance readiness of local government councils in Nigeria: Focus on Lokoja local government council of Kogi state Nigeria

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ABSTRACT

This study assessed the e-Governance readiness of Lokoja Local Government Council, Kogi State Nigeria. It evaluated how Lokoja Local Government Council desirous of embracing efficient service delivery, looked towards the adoption of e-Governance, this study x-rays the structures put in place to transition from the traditional administration to an ICT-based administration. The approach used for data collection was the survey research method. Furthermore, a simple statistical tool such as percentage and frequency tabulation were used for the analysis and interpretation of the data gathered, and then Chi-square was used to test the hypotheses stated in the study. The findings from the study led to the rejection of all three null hypotheses. This indicates that the study revealed a significant level of infrastructural readiness in Lokoja local government council; the findings also showed that there is a significant level of human resource readiness in Lokoja local government council; lastly, the study also showed that there is a significant level of institutional readiness in Lokoja local government council. The study made the following recommendations among others; While the current infrastructure is adequate, there should be a continuous investment in upgrading technology to keep pace with global advancements in e-Governance systems. It is crucial to regularly update the skills of the staff through training and development programs to ensure they remain proficient in the latest e-Governance technologies and practices. The council should continue to refine its policies and governance structures to support the long-term sustainability of e-Governance.

KEYWORDS

e-Governance; Service delivery; e-Readiness; Local government administration; Lokoja local government area

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Introduction

The way people do their daily duties has been significantly altered by technological advancements. The field of mobile communication is expanding, from sending text messages to reading emails on mobile devices, and our internet navigation skills are getting much better. For tasks including online shopping, banking, flight booking, payment processing, weather checking, subject research, and social networking, more individuals are using the internet. This raises the question of how important it is to public administration. The use of technology and the Internet in government operations is growing along with internet usage and technology adoption. E-Governance serves as a catch-all word for how the government uses technology to carry out its many responsibilities [1].

According to Shareef et al, e-Governance is essentially the use of information and communication technology (ICT) to enhance the provision of public services with the goal of greater accountability, transparency, timeliness, and efficiency [2]. Using contemporary technologies is essential to achieving e-Governance. Governments all over the world are gradually adopting and using information and communication technology in public services, even though it has long been used in traditional administrative tasks, enterprises, and many other areas. The realization that ICT is an essential instrument for changing public sector organizations from conventional command-and-control systems, which prioritize internal administration, to knowledge-based, interconnected and

adaptive organizations that emphasize external service delivery (OECD, 2015) Governments are important institutions that have a significant impact on people's lives in almost every nation in the world. Governments in the contemporary period are supposed to safeguard their populations by creating laws within preexisting political structures. While other nations have struggled to establish goodwill with their inhabitants, some have been lucky to have governments that have a strong sense of social responsibility, promoting societal growth [2]. New public management is a bold and ambitious concept that marks a significant shift in the way the government approaches sustainable development.

Aspects of performance management and quicker service delivery in the public sector now include e-government to address the ongoing problems the Federal Government of Nigeria faces as a result of bureaucratic governance [3]. E-government, or the use of information and communication technology (ICT) to improve the operations of public sector organizations, is becoming more widely acknowledged as a way to increase the effectiveness, responsiveness, and transparency of government operations. E-government deployment has emerged as a major project in Nigeria with the goal of modernizing public administration and enhancing citizen service delivery [4]. The idea of e-government, a novel approach to public administration that offers significant prospects to improve efficiency, openness, and citizen engagement, has gained favor in this quickly changing digital age [5].

The Kogi Digital Album and the Kogi Open Governance and Accountability System (KOGAS) were launched by the government to improve service delivery in Kogi State. KOGAS functions as a digital platform designed to enhance communication and engagement between the public and the government. All inquiries will be answered within a 24-hour period thanks to this program, which guarantees that locals may consistently communicate with their leaders. The administration's continued commitment to maintaining the principles of transparent governance and accountability is demonstrated by the implementation of KOGAS [3].

Following established operational protocols, the Kogi State Ministry of Information and Communications is responsible for using KOGAS to enable real-time interactions and public feedback. To facilitate the collection of complaints and recommendations and guarantee prompt responses, the ministry intends to integrate all branches of government into this platform. Apart from KOGAS, the Kogi State Digital Album aims to compile pictures that highlight government endeavors, projects, and activities to inform the public. To help locate businesses in Kogi State and increase their visibility, this directory also has a yellow pages section. Important aspects of production, distribution, supply, and demand are all included in a thorough understanding of how the government employs technology to deliver services, as well as the associated democratic procedures [3].

The push towards e-government adoption is driven by the need to address the inefficiencies and limitations of traditional governance structures, which often result in slow service delivery, lack of transparency, and limited citizen participation [4]. Ajibade et al opined that the Lokoja Local Government Council in Kogi State stands as a critical administrative unit with significant responsibilities in governance, public service provision, and community development [4]. The desire for e-Governance in Lokoja Local Council has been influenced by several factors, including the need to streamline administrative processes, improve service delivery, and enhance the overall governance framework. The growing demand for better public services, coupled with the recognition of the benefits of digital transformation, has spurred the council to explore the adoption of e-government initiatives.

The readiness of the Lokoja local government council to adopt and implement e-government initiatives is essential for the successful deployment of ICT in public administration. Preparations for the adoption of e-government in the Lokoja local government council have involved several initiatives. Firstly, efforts have been made to assess and improve the existing ICT infrastructure. This includes upgrading internet connectivity, procuring necessary hardware and software, and ensuring a reliable power supply to support digital operations [5]. Additionally, training programs have been implemented to enhance the ICT skills of the local council staff, equipping them with the knowledge and competencies required to effectively use e-government systems.

Institutional preparations have also been a focal point, with the development of policies and strategies to guide e-government implementation. These policies aim to create a conducive environment for digital transformation, promoting a

culture of innovation and change within the council. Furthermore, partnerships with private sector entities and international organizations have been explored to leverage expertise and resources in the e-government journey. Lokoja Local Government Council, like other local councils in Kogi State, faces challenges in managing its administrative, financial, and public service delivery processes.

These challenges are largely due to the reliance on traditional, manual methods of operation without an e-government system. Without an e-government system, Lokoja Local Government Council has been struggling with:

- 1. Inefficiency in Administrative Processes:** The reliance on manual paperwork and outdated procedures results in delays and errors in administrative tasks, affecting the overall efficiency of the council's operations.
- 2. Lack of Transparency and Accountability:** Manual processes often lack the transparency required for good governance, leading to potential corruption and mismanagement of resources.
- 3. Poor Public Service Delivery:** There are experiences of delays in accessing services, and the process is often cumbersome, leading to dissatisfaction and a lack of trust in the local government.
- 4. Limited Public Participation:** Traditional methods do not facilitate easy communication between the government and the governed, reducing public participation in decision-making processes.
- 5. Inadequate Revenue Generation and Management:** The absence of a streamlined system for revenue collection and management hinders the council's ability to maximize its revenue potential, thereby affecting its financial sustainability.

The consideration to adopt e-Governance processes in Lokoja Local Government Council arises from the need to address these challenges. E-Governance enhances efficiency, transparency, and public participation, ultimately leading to better governance and improved service delivery. The gap between the ideal and reality in e-government readiness can have several adverse consequences for the Lokoja Local Government Council. Ideally, the e-government readiness of the Lokoja Local Government Council would be characterized by a seamless integration of digital technologies to enhance administrative efficiency, service delivery, and citizen engagement.

This would involve robust infrastructural readiness, with adequate technological infrastructure and internet connectivity; comprehensive human resource readiness, with staff possessing the necessary skills and training to manage and operate e-government platforms; and strong institutional readiness, with well-defined policies, processes, and governance structures to support the effective implementation and sustainability of e-government initiatives. Ideally, these elements would work in harmony to establish a responsive, transparent, and efficient local government, according to the United Nations in 2020 [6].

However, the reality at Lokoja Local Government Council

is significantly different. Infrastructural readiness has been compromised by out-dated or insufficient technological infrastructure, limited internet access, and inadequate maintenance of existing systems. Human resource readiness is also hindered by a lack of skilled personnel, insufficient training programs, and resistance to adopting new technologies. Institutional readiness has been affected by poorly defined policies, weak governance structures, and a lack of strategic planning and coordination [5]. These deficiencies as mentioned have created barriers to the successful implementation of e-government initiatives in Lokoja Local Government Council, preventing the council from achieving its full potential in service delivery and citizen engagement. These issues collectively undermine the effectiveness of the council, leading to citizen dissatisfaction, decreased transparency, and a failure to meet the growing demands for efficient and accessible public services [7].

The problem of this study is to find out the e-Government readiness of the Lokoja Local Government Council by evaluating the current state of infrastructural readiness, human resource readiness, and institutional readiness.

Objectives of the study

The general objective of this study is to examine the e-government readiness of the Lokoja Local Government Council. The specific objectives of the study are:

- i. To examine the infrastructural readiness of the Lokoja Local Government Council
- ii. To ascertain the human resource readiness of the Lokoja Local Government Council.
- iii. To identify institutional readiness in Lokoja Local Government Council

Research hypotheses

- i. There is no significant level of infrastructural readiness in Lokoja Local Government Council
- ii. There is no significant level of human resource readiness of Lokoja Local Government Council
- iii. There is no significant level of institutional readiness in Lokoja Local Government Council

Conceptual Review

Concept of e-Governance

E-Governance, short for electronic government, involves the use of digital technologies, particularly the Internet to deliver governmental services, engage citizens, boost administrative efficiency and foster transparency and accountability in governance systems. This concept has attracted significant global attention as governments seek to modernize and enhance the provision of public services through digital means [8]. In essence, e-Governance refers to the application of information and communication technology (ICT) in government activities, aimed at improving the efficiency, effectiveness, and transparency of public administration.

According to UNESCO, e-Governance refers to the exercise of political, economic, and administrative authority in the management of a country's affairs, including citizens'

articulation of their interests and exercise of their legal rights and obligations. E-Governance therefore entails "the performance of this governance via the electronic medium to facilitate an efficient, speedy and transparent process of disseminating information to the public and other agencies and for performing government administration activities.

Other scholars define e-Governance as a broader concept that deals with the whole spectrum of the relationships and networks within government regarding the usage and application of information and communication technologies holistically. Hence it is a way of describing the links between government and its broader environment- political, social, and administrative- within the context of the use of information and communication technologies in government. E-Governance is expressed to be a broad, general, and more complex use of the digital revolution.

E-Governance is however sometimes used interchangeably with e-Government in the context of its adoption or implementation in information systems. It defines and assesses the impacts that technologies are having on the practice and administration of government and the relationships between public servants and the wider society. E-Governance encompasses a series of necessary steps for government agencies to develop and administer to ensure the successful implementation of e-Government services to the public at large.

E-Readiness

E-readiness refers to the preparedness of an organization, community, or government entity to effectively adopt and utilize electronic technologies to improve services, operations, and overall governance. In the context of e-government, e-readiness assesses the extent to which a local government council is equipped with the necessary infrastructure, human capital, regulatory frameworks, and organizational capacity to implement digital initiatives successfully [8]. It is a multifaceted concept that encompasses several key dimensions. These dimensions provide a comprehensive framework for evaluating the preparedness of the Lokoja Local Government Council for e-government implementation and they include: Technological infrastructure, Human capital, institutional framework, organizational culture and leadership, financial resources, and socioeconomic factors [6,9].

Furthermore, several frameworks have been developed to assess e-readiness, each emphasizing different aspects of preparedness. One widely recognized framework is Gartner's E-Readiness Model, which evaluates readiness across dimensions such as strategy, technology, organization, and people. Another prominent framework is the United Nations E-Government Development Index (EGDI), which measures e-readiness at the national level based on online services, telecommunication infrastructure, and human capital [6]. For local government contexts like Lokoja, the assessment framework may need to be tailored to address specific challenges and opportunities at the municipal level. Factors such as local infrastructure limitations, unique governance structures, and community engagement levels will be considered to provide an accurate assessment. Assessing e-readiness is a critical step in the successful implementation of e-government initiatives. Understanding the current state of

readiness helps identify strengths to build upon and weaknesses that need to be addressed.

Local government

According to Abasilim et al, the National Guidelines for Local Government Reform, defines local government as a governance structure at the community level, operated through representative councils that are legally mandated to exercise specific powers within assigned areas [10]. Amin et al, describe the local government as an administrative unit with a defined geographical territory and authority, as well as a level of independence in its operations [6]. Fatile highlights the philosophical basis of local governance, which promotes democratic participation in decision-making at the grassroots level [11]. This idea involves the legal and administrative transfer of authority, power, and personnel from a higher level of government to a community with its agency, allowing it to perform assigned functions within the larger national framework [12].

The United Nations Office for Public Administration, as referenced by Amin et al, characterizes local government as a political subdivision of a nation or, in a federal system, a state, created by law and given substantial control over local affairs, including the power to impose taxes and organize labour for specific objectives [6]. The governing body of such a local authority is either elected or appointed through local methods. Lokoja Local Government Council, as part of this broader national context, faces its own unique challenges and opportunities in the adoption of e-government. Assessing the e-government readiness of Lokoja Local Government Council involves examining the current state of digital infrastructure, the availability of skilled human resources, and the extent to which e-government services are already being utilized [11].

Literature review

The initiative to reform governmental structures has emerged as a central discourse since the 1990s, with various nations globally endeavoring to enhance the efficacy of public service delivery systems. The rapid advancement of information communication technology (ICT) is fundamentally transforming the modalities through which governmental services are rendered in contemporary society. The administration of governmental services and associated processes can be optimized through the utilization of diverse ICT platforms, applications, and services [12,13]. The empowerment of governmental agencies and private sectors via ICT facilitates the provision of efficient and transparent services to the citizenry. This technological integration enables the government to adopt innovative methods for delivering services to citizens, industries, and governmental bodies. In essence, the evolution of the information society has reconfigured governmental operations, thereby altering the frameworks of service delivery.

Human orientation, uncertainty avoidance, in-group collectivism, and institutional collectivism are factors of interest. Gross domestic product (GDP) is incorporated as a control variable in this analysis. The research drew upon data from the UN survey in 2008, revealing that cultural values exert a more pronounced influence on predicting e-government

readiness compared to cultural practices, while GDP emerges as a significant determinant of e-government preparedness [14]. The concept of electronic governance, subsequently referred to as e-government, originates from the aspiration for the efficient provision of services. E-government is fundamentally based on the utilization of the capabilities of information and communication technology (ICT) to enhance governmental services delivered to citizens, enterprises, suppliers, and public institutions [15].

Local governmental entities are empowered to provide services to the populace, with the authority to generate revenue and receive fiscal transfers from state and national authorities [16]. Nevertheless, due to the inherent complexities associated with governance, whether at the local government or national tier, e-government initiatives frequently exhibit a collaborative framework. This cooperative endeavor consolidates various governmental divisions, private sector entities, non-governmental organizations, civic groups, and the citizenry as the principal stakeholders of e-government [17]. Since the latter part of the 1990s, governmental entities across the globe have been engaged in the formulation of electronic governance frameworks. The provision of public services transpires at various governmental tiers; however, services that are primarily oriented towards citizens are predominantly rendered by municipalities, which are pivotal institutions within the local governance structure.

Municipalities represent the most immediate form of governmental organization through which citizens experience the direct consequences of governmental actions. A significant proportion of electronic governance services is increasingly implemented at the municipal tier, rather than at the national tier. The adoption of electronic systems in the administrative and organizational dimensions of local government operations is essential for the effective and efficient provision of public services. An understanding of the local context, the prevailing environment, as well as the opportunities and challenges faced by a specific municipality, can facilitate the development of a realistic electronic governance strategy [18]. A municipality serves as a crucial entity within the local government framework, tasked with the essential functions of effective service delivery to all residents within its jurisdiction.

Nonetheless, due to the insufficiency of qualified personnel and the lack of technical and organizational capabilities, numerous local councils have been unable to fully commit to the formulation of a comprehensive strategic electronic governance plan aimed at attaining an advanced level of electronic governance [16,18]. Local government entities must aspire to advance their e-government initiatives to augment the efficacy of e-government operations [19]. This necessitates, without question, a preliminary assessment of the existing resources to sufficiently evaluate e-government preparedness. The primary aim of this investigation is to amalgamate the various elements that have been delineated in the existing literature on e-government readiness into a singular framework designed for the assessment of e-government readiness at the local government level.

Numerous causal factors have been identified within the literature to assess the e-government readiness of a local council

[10,20,21]. Nonetheless, the disparate research trajectories remain segregated, and the factors that have been recognized have not been systematically synthesized into a comprehensive model for the evaluation of local government council e-government readiness.

Implementation of e-Government in Lokoja local government council and the challenges

The digital transformation: The digital transformation of public services engenders a multitude of advantages; nevertheless, it concurrently presents challenges that necessitate thorough examination and strategic intervention. Scholars such as Abasilim et al, have delineated inadequate telecommunications and internet infrastructure as a significant hindrance to the effective implementation of e-Governance within the Lokoja Local Government Council [10]. Fatile accentuates this predicament by asserting that the technological frameworks crucial for the successful execution and functioning of e-Governance are both inadequate and of inferior quality, with telecommunications services categorically included in this assessment [11]. Furthermore, Abdulkareem has elucidated various impediments that obstruct the realization of e-Governance in the Lokoja Local Government Council, which encompass the following: human orientation, uncertainty avoidance, in-group collectivism, and institutional collectivism [12]. Gross Domestic Product (GDP) is included as a control variable, according to Twum-Darko [13]. The investigation employed the reported survey from UNDESA in 2008 for its findings and demonstrated that cultural values exert a more substantial influence on predicting e-government readiness than cultural practices, while GDP emerges as a critical determinant of e-government readiness.

Digital divide widening social disparities: The presence of a digital divide underscores the persistent disparities in access to technology and the consequential impact on various societal facets. Those lacking the means to access digital resources and lacking proficiency in digital literacy are left further marginalized in an increasingly digitally dependent world. Educational, economic, and healthcare opportunities that are readily available to digitally- connected populations become distant aspirations for those who are left on the wrong side of the digital divide. Addressing this issue becomes not just a matter of technological inclusion, but a fundamental step towards equitable and inclusive development. This is the difference in the access and usage of technology between regions and areas that have the same identity. A proper explanation of the digital divide in Nigeria chronicles the change in the accessibility and use of technological services between rural and urban areas. The digital divide results from low literacy, infrastructural deficits, and massive poverty.

Urgent need for comprehensive cybersecurity measures: The dangers of cyber-security have never been more apparent in the ever-changing digital world of today. Hackers and other bad actors can take advantage of the complex environment created by the intricate links between systems, devices, and networks. As a result, protecting sensitive data, preserving the integrity of vital infrastructure, and preserving individual privacy requires a substantial investment from both public and commercial organizations. A successful cyberattack can have consequences

beyond just short-term monetary losses; it may also have an impact on national security and erode public confidence. As a result, a strong commitment to sound cyber-security procedures is essential, necessitating both proactive and reactive

Regulatory frameworks: The pace of invention frequently surpasses the development of appropriate legal frameworks in the rapidly evolving technological landscape of today. The capabilities of evolving technologies and the ethical and regulatory constraints that control their use may become disconnected as a result of this disparity. Therefore, creating and implementing clear and current laws and regulations has become essential. These rules serve as guiding principles that maintain the overall integrity of the innovation process while directing technological advancement toward safe and socially responsible results.

Incessant power failure: Continuous Power Outages: The ongoing problem of power outages is a significant barrier to Nigeria's successful implementation of e-Governance. Both rural and urban areas frequently experience power outages due to the nation's uneven and unpredictable electrical supply. The effectiveness of the country's information and communication technology (ICT) initiatives is adversely impacted by this instability. In addition to lowering the quality of service provided to customers, many telecommunications facilities rely on diesel generators for electricity, which raises operational costs that also leads to higher operating expenses that are ultimately passed on to the users.

Low IT professional manpower: The effective implementation of e-Governance across the country is significantly hampered by the existing status of ICT education in Nigeria. A thorough assessment of the deficiencies of the staff members responsible for providing e-services across Nigeria was discussed in an interview with a representative of the Nigerian Communication Commission (NCC). The few experienced individuals in this field are often overburdened by their responsibilities, as was claimed [21].

Infrastructure constraints: A robust and efficient IT infrastructure is essential to the continuous digital transformation impacting many sectors and societies. The existence of infrastructure constraints, particularly in rural and underprivileged areas, is a major barrier to accomplishing this change. Rural locations usually deal with issues including poor network coverage, sluggish internet speeds, and irregular power supplies, whereas urban places could have unbroken connectivity and access to digital services.

Methodology

This chapter focuses on the methods and procedures employed by the researcher during the study. The method comprises the following headings: Design of the study, area of the study, population of the study, sample and sampling technique, instruments for data collection, validation of the instrument, reliability of the instrument and method of data analysis.

Population of the study

The population for this research work constitute the staff of the Lokoja Local Government Council. The population of the local

government staffers stood at 1,350 (one thousand, three hundred and fifty) at the time this research work was being embarked upon.

Table 1. Population of Lokoja Local Government Council Staff.

Department	No of Staff	Percentage (%)
Admin	258	19.1
Finance	104	7.7
Works	139	10.3
Health	185	13.7
Education	190	14.1
Agric	204	15.1
Budget and Planning	270	20
Total	1350	100

Source: Lokoja Local Government Information Unit

Sample and sampling technique

For this work, Taro Yamane's formula was used in drawing the sample size for the study. The formula is stated thus:

$$n = \frac{N}{1 + N(e)^2}$$

where:

n= Sample

N= Population

e= Level of Precision = 0.05 (5%)

1 = Constant

$$n = \frac{1350}{1 + 1350(0.05)^2}$$

$$n = \frac{1350}{1 + 1350(0.0025)}$$

$$n = \frac{1350}{1 + 3.375}$$

$$n = \frac{1350}{4.375}$$

$$= 309$$

Therefore, the sample size is 309 staff members of Lokoja Local Government Council.

Furthermore, in this study table of frequencies of respondents is used for the presentation of data, and percentages are the main statistical tool of analysis and interpretation. The instruments used for data analysis were simple percentage and chi-square, the simple percentage was used for data presentation while the chi-square was used to test the hypotheses (Table 1).

$$\chi^2 = \sum \frac{[O-E]^2}{E}$$

Where:

O = Observed value

E = the expected value

χ^2 = Chi-square

Σ = Summation

Decision rule

This rule states that if the calculated value is greater than the table value, reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1) but where the table value is greater than the calculated value, accept the null hypothesis (H_0) and reject the alternative hypothesis (H_1).

Method of data collection and analysis

This study adopted the use of quantitative methods of data collection. Quantitative data are statistical and are typically structured in nature meaning they are more rigid and defined. The questionnaire is the technique or method used for data collection. The researcher issued 309 copies of the questionnaire to the staff members of Lokoja Local Government Council, out of this number, 10 copies were not returned while 17 copies were not properly filled and were therefore rejected. The researcher was therefore left with 282 copies of the questionnaire. This was used in the analysis.

Furthermore, in this study, a (Table 1) of frequencies of respondents was used for the presentation of data, and the instruments used for data analysis were simple percentages and chi-square, the simple percentage was used for data presentation while chi-square was used to test the hypotheses.

Data presentation and analysis

The data collected from the questionnaires was primarily descriptive, focusing on the respondents' opinions, perceptions, and experiences related to the study's key variables. To effectively present this data, a simple percentage analysis was used. A simple percentage was employed to summarize the responses in a clear and easily understandable manner. Each question's responses were converted into percentages, allowing for a straightforward comparison of how different categories of respondents answered specific questions.

After presenting the data descriptively using simple percentages, the next step involved testing the research hypotheses to determine the relationships between the variables. Chi-square statistics was the method chosen for this purpose, given its effectiveness in testing relationships between categorical variables.

Table 2. Administration of Questionnaires to various departments in the Council.

Department	Number Distributed	Percentage (%)
Admin	44	14
Finance	42	14
Works	43	14
Health	44	14
Education	45	15
Agric	42	14
Budget and Planning	49	16
Total	309	100

Source: Field Survey, 2024

The table shows that 44 (14%) copies of the questionnaire were distributed to the admin department, 42 (14%) copies were distributed to the Finance department, 43 copies were distributed to the Works department, another 44 copies were given to the Health Department, 45 copies of questionnaire were distributed to the Education Department, 42 and 49 copies of questionnaire were to the Agric and Budget and Planning department respectively (Table 2).

Table 3. Administration of Questionnaire.

Departments	Administered Questionnaire	Returned Questionnaire
Admin	44	40
Finance	42	39
Works	43	39
Health	44	40
Education	45	41
Agric	42	38
Budget and Planning	49	45
Total	309	282
%	100	91.3

Source: Field Survey, 2024

The (Table 3) above shows that a total of 309 copies of the questionnaire were distributed, 282 (91.3%) copies were duly filled and used for analysis, while 27 copies (8.7%) of the questionnaire were not filled correctly and were discarded.

Table 4. The existing ICT infrastructure in Lokoja Local Government Council is adequate for implementing e-Governance.

Response	Frequency	Percentage (%)
Strongly Agree	115	40.8
Agree	77	27.3
Undecided	29	10.3
Disagree	45	16
Strongly Disagree	16	5.6
Total	282	100%

Source: Field Survey, 2024

The table shows that 40.8% of the respondents strongly agreed with the statement, 27.3% agreed, 10.3% were undecided, 16.0% disagreed, and 5.6% strongly disagreed. This indicates that according to the respondents, the existing ICT infrastructure in Lokoja Local Government Council is adequate for implementing e-Governance (Table 4).

Table 5. There is reliable internet connectivity throughout the Lokoja Local Government Council.

Response	Frequency	Percentage (%)
Strongly Agree	98	34.8
Agree	82	29.1
Undecided	42	14.9
Disagree	36	12.8
Strongly Disagree	24	8.5
Total	282	100%

Source: Field Survey, 2024

The table shows that 34.8% of the respondents strongly agreed with the statement, 29.1% agreed, 14.9% were undecided, 12.8% disagreed, and 8.5% strongly disagreed. This

shows that the majority of the respondents (34.8) affirmed that there is reliable internet connectivity throughout the Lokoja Local Government Council (Table 5).

Table 6. Necessary hardware and software resources are readily available for e-Governance initiatives.

Response	Frequency	Percentage (%)
Strongly Agree	104	36.9
Agree	71	25.2
Undecided	36	12.8
Disagree	47	16.7
Strongly Disagree	24	8.5
Total	282	100%

Source: Field Survey, 2024

The table shows that 36.9% of the respondents strongly agreed with the statement, 25.2% agreed, 12.8% were undecided, 16.7% disagreed, and 8.5% strongly disagreed. This means necessary hardware and software resources are readily available for e-Governance initiatives (Table 6).

Table 7. The power supply in Lokoja Local Government Council is stable enough to support e-Governance systems.

Response	Frequency	Percentage (%)
Strongly Agree	87	30.9
Agree	88	31.2
Undecided	44	15.6
Disagree	40	14.2
Strongly Disagree	23	8.2
Total	282	100%

Source: Field Survey, 2024

The (Table 7) shows that 30.9% of the respondents strongly agreed with the statement, 31.2% agreed, 15.6% were undecided, 14.2% disagreed, and 8.2% strongly disagreed. This indicates the power supply in Lokoja Local Government Council is stable enough to support e-Governance systems.

Table 8. The local government has invested sufficiently in ICT infrastructure required for e-Governance.

Response	Frequency	Percentage (%)
Strongly Agree	92	32.6
Agree	73	25.9
Undecided	34	12.1
Disagree	54	19.1
Strongly Disagree	29	10.3
Total	282	100%

Source: Field Survey, 2024

The table shows that 32.6% of the respondents strongly agreed with the statement, 25.9% agreed, 12.1% were undecided, 19.1% disagreed, and 10.3% strongly disagreed. This shows the local government has invested sufficiently in ICT infrastructure required for e-Governance (Table 8).

Table 9. Staff at Lokoja Local Government Council are adequately trained in ICT skills necessary for e-Governance.

Response	Frequency	Percentage (%)
Strongly Agree	120	42.6
Agree	84	29.8
Undecided	32	11.3
Disagree	32	11.3
Strongly Disagree	14	5
Total	282	100%

Source: Field Survey, 2024

The table shows that 42.6% of the respondents strongly agreed with the statement, 29.8% agreed, 11.3% were undecided, 11.3% disagreed, and 5.0% strongly disagreed. This reveals that according to the respondents, Staff at Lokoja Local Government Council are adequately trained in ICT skills necessary for e-Governance (Table 9).

Table 10. There is sufficient technical expertise among staff to implement e-Governance initiatives.

Response	Frequency	Percentage (%)
Strongly Agree	111	39.4
Agree	91	32.3
Undecided	28	9.9
Disagree	33	11.7
Strongly Disagree	19	6.7
Total	282	100%

Source: Field Survey, 2024

The table shows that 39.4% of the respondents strongly agreed with the statement, 32.3% agreed, 9.9% were undecided, 11.7% disagreed, and 6.7% strongly disagreed. The analysis in this table shows that the respondents affirmed that according to majority of the respondents, there is sufficient technical expertise among staff to implement e-Governance initiatives (Table 10).

Table 11. Employees are receptive to adopting new technologies for government services.

Response	Frequency	Percentage (%)
Strongly Agree	101	35.8
Agree	94	33.3
Undecided	36	12.8
Disagree	35	12.4
Strongly Disagree	16	5.6
Total	282	100%

Source: Field Survey, 2024

The table shows that 35.8% of the respondents strongly agreed with the statement, 33.3% agreed, 12.8% were undecided, 12.4% disagreed, and 5.6% strongly disagreed. This means employees are receptive to adopting new technologies for government services (Table 11).

Table 12. Regular training programs are provided to enhance the ICT competencies of the staff.

Response	Frequency	Percentage (%)
Strongly Agree	105	37.2
Agree	85	30.1
Undecided	37	13.1
Disagree	33	11.7
Strongly Disagree	22	7.8
Total	282	100%

Source: Field Survey, 2024

The (Table 12) shows that 37.2% of the respondents strongly agreed with the statement, 30.1% agreed, 13.1% were undecided, 11.7% disagreed, and 7.8% strongly disagreed. The analysis of this table shows that regular training programs are provided to enhance the ICT competencies of the staff.

Table 13. The staff have positive attitudes towards e-Governance initiatives.

Response	Frequency	Percentage (%)
Strongly Agree	112	39.7
Agree	74	26.2
Undecided	42	14.9
Disagree	32	11.3
Strongly Disagree	22	7.8
Total	282	100%

Source: Field Survey, 2024

The table shows that 39.7% of the respondents strongly agreed with the statement, 26.2% agreed, 14.9% were undecided, 11.3% disagreed, and 7.8% strongly disagreed. From this table, it can be deduced that the staff have positive attitudes towards e-Governance initiatives (Table 13).

Table 14. The policies and regulations in Lokoja Local Government Council support e-Governance implementation.

Response	Frequency	Percentage (%)
Strongly Agree	126	44.7
Agree	75	26.6
Undecided	34	12.1
Disagree	28	9.9
Strongly Disagree	19	6.7
Total	282	100%

Source: Field Survey, 2024

The table shows that 44.7% of the respondents strongly agreed with the statement, 26.6% agreed, 12.1% were undecided, 9.9% disagreed, and 6.7% strongly disagreed. This shows that the majority of the respondents affirm that the policies and regulations in Lokoja Local Government Council support e-Governance implementation (Table 14).

Table 15. There is strong leadership commitment towards e-Governance in the local government.

Response	Frequency	Percentage (%)
Strongly Agree	108	38.3
Agree	83	29.4
Undecided	34	12.1
Disagree	36	12.8
Strongly Disagree	21	7.4
Total	282	100%

Source: Field Survey, 2024

The table shows that 38.3% of the respondents strongly agreed with the statement, 29.4% agreed, 12.1% were undecided, 12.8% disagreed, and 7.4% strongly disagreed. This shows that there is strong leadership commitment in the Lokoja Local Government Council towards e-Governance in the local government (Table 15).

Table 16. The organizational structure is conducive to implementing e-Governance.

Response	Frequency	Percentage (%)
Strongly Agree	102	36.2
Agree	86	30.5
Undecided	39	13.8
Disagree	37	13.1
Strongly Disagree	18	6.4
Total	282	100%

Source: Field Survey, 2024

The table shows that 36.2% of the respondents strongly agreed with the statement, 30.5% agreed, 13.8% were undecided, 13.1% disagreed, and 6.4% strongly disagreed. The analysis of this table reveals that the organizational structure is conducive to implementing e-Governance (Table 16).

Table 17. Inter-departmental collaboration is effective for e-Governance initiatives.

Response	Frequency	Percentage (%)
Strongly Agree	95	33.7
Agree	88	31.2
Undecided	35	12.4
Disagree	43	15.2
Strongly Disagree	21	7.4
Total	282	100%

Source: Field Survey, 2024

The table shows that 33.7% of the respondents strongly agreed with the statement, 31.2% agreed, 12.4% were undecided, 15.2% disagreed, and 7.4% strongly disagreed. This means that according to the majority of the respondents, Inter-departmental collaboration is effective for e-Governance initiatives (Table 17).

Table 18. The local government collaborates with NGOs and other stakeholders to improve water supply.

Response	Frequency	Percentage (%)
Strongly Agree	98	34.8
Agree	87	30.9
Undecided	41	14.5
Disagree	34	12.1
Strongly Disagree	22	7.8
Total	282	100%

Source: Field Survey, 2024

The table shows that 34.8% of the respondents strongly agreed with the statement, 30.9% agreed, 14.5% were undecided, 12.1% disagreed, and 7.8% strongly disagreed. This shows that the local government collaborates with NGOs and other stakeholders to improve water supply (Table 18).

Table 19. Increasing investment in ICT infrastructure will address the challenges of e-Governance.

Response	Frequency	Percentage (%)
Strongly Agree	109	38.7
Agree	74	26.2
Undecided	38	13.5
Disagree	38	13.5
Strongly Disagree	23	8.2
Total	282	100%

Source: Field Survey, 2024

The table shows that 38.7% of the respondents strongly agreed with the statement, 26.2% agreed, 13.5% were undecided, 13.5% disagreed, and 8.2% strongly disagreed. This indicates that increasing investment in ICT infrastructure will address the challenges of e-Governance (Table 19).

Table 20. Providing regular ICT training for staff is essential to overcome e-Governance challenges.

Response	Frequency	Percentage (%)
Strongly Agree	105	37.2
Agree	77	27.3
Undecided	39	13.8
Disagree	39	13.8
Strongly Disagree	22	7.8
Total	282	100%

Source: Field Survey, 2024

The table shows that 37.2% of the respondents strongly agreed with the statement, 27.3% agreed, 13.8% were undecided, 13.8% disagreed, and 7.8% strongly disagreed. The analysis in this table shows that increasing investment in ICT infrastructure will address the challenges of e-Governance (Table 20).

Table 21. Strengthening policy frameworks can enhance e-Governance implementation.

Response	Frequency	Percentage (%)
Strongly Agree	99	35.1
Agree	88	31.2
Undecided	37	13.1
Disagree	35	12.4
Strongly Disagree	23	8.2
Total	282	100%

Source: Field Survey, 2024

The table shows that 35.1% of the respondents strongly agreed with the statement, 31.2% agreed, 13.1% were undecided, 12.4% disagreed, and 8.2% strongly disagreed. This means that strengthening policy frameworks can enhance e-Governance implementation (Table 21).

Table 22. Enhancing public awareness and engagement will improve e-Governance adoption.

Response	Frequency	Percentage (%)
Strongly Agree	107	37.9
Agree	78	27.7
Undecided	32	11.3
Disagree	36	12.8
Strongly Disagree	29	10.3
Total	282	100%

Source: Field Survey, 2024

The table shows that 37.9% of the respondents strongly agreed with the statement, 27.7% agreed, 11.3% were undecided, 12.8% disagreed, and 10.3% strongly disagreed. This shows that enhancing public awareness and engagement will improve e-Governance adoption (Table 22).

Table 23. Collaborating with private sector partners can help resolve e-Governance challenges.

Response	Frequency	Percentage (%)
Strongly Agree	102	36.2
Agree	80	28.4
Undecided	34	12.1
Disagree	42	14.9
Strongly Disagree	24	8.5
Total	282	100%

Source: Field Survey, 2024

The table shows that 36.2% of the respondents strongly agreed with the statement, 28.4% agreed, 12.1% were undecided, 14.9% disagreed, and 8.5% strongly disagreed. This indicates that collaborating with private sector partners can help resolve e-Governance challenges (Table 23).

Hypothesis testing

The hypotheses earlier formulated in this research work are tested in this part as a result of the analysis of the questionnaire that has been found to either support or against the hypothesis.

The statistics technique which is used in testing this hypothesis is chi-square (χ^2). The formula for chi-square is shown

$$\chi^2 = \frac{\sum(O - e)^2}{e}$$

Where χ^2 = Chi-Square

O = Observed Frequency

e = Expected Frequency

Σ = Summation sign

χ^2 = the chi-square

Decision rule

This rule states that if the calculated value is greater than the table value, it means the null hypothesis (H_0) will be rejected and the alternative hypothesis (H_1) will be retained but where the table value is greater than the calculated value it means the null hypothesis (H_0) will be accepted and the alternative hypothesis (H_1) will be rejected.

Hypothesis I

H₀: There is no significant level of infrastructural readiness in Lokoja Local Government Council.

Table 24. Recall Table for testing Hypothesis 1.

Variables	O _i	E _i	(O _i -E _i)	(O _i -E _i) ²	$\frac{(O_i - E_i)^2}{E_i}$
Strongly Agree	115	56.4	58.6	3433.9	60.9
Agree	77	56.4	20.6	424.4	7.5
Undecided	29	56.4	-27.4	750.8	13.3
Disagree	45	56.4	-11.4	129.9	2.3
Strongly Disagree	16	56.4	-40.4	1632.2	28.9
Total	282				$\chi^2=112.9$

Source: Field Survey, 2024

Note that the frequency expected is not given, so we will use the average value of the distribution. Total number of respondents divided by the number of rows =

$$E_i = \frac{282}{5} = 56.4$$

$$\chi^2 = 112.9$$

The level of significance is 5% = 0.05

Degree of freedom (v) = (C - 1) (R - 1)

$$V = (5-1) (2-1)$$

$$V = 4$$

The table value of 4 = 9.488

With 4 degrees of freedom and at a 5% significance level, the critical value from the chi-square distribution table is 9.488. Since the calculated chi-square value (112.9) is much greater

than 9.488, we reject the null hypothesis (Table 24). Therefore, there is a significant level of infrastructural readiness in Lokoja Local Government Council.

Hypothesis II

H₀: There is no significant level of human resource readiness at Lokoja Local Government Council.

Table 25. Recall Table for testing Hypothesis 2.

Variables	O _i	E _i	(O _i -E _i)	(O _i -E _i) ²	$\frac{(O_i-E_i)^2}{E_i}$
Strongly Agree	111	56.4	54.6	2981.2	52.9
Agree	91	56.4	34.6	1197.2	21.2
Undecided	28	56.4	-28.4	806.6	14.3
Disagree	33	56.4	-23.4	547.6	9.7
Strongly Disagree	19	56.4	-37.4	1398.8	24.8
Total	282				$\chi^2 = 122.9$

Source: Field Survey, 2024

Note that the frequency expected is not given, so we will use the average value of the distribution. Total number of respondents divided by the number of rows =

$$E_i = \frac{282}{5} = 56.4$$

$$\chi^2 = 122.9$$

The level of significance is 5% = 0.05

Degree of freedom (v) = (C - 1) (R - 1)

$$V = (5-1) (2-1)$$

$$V = 4$$

The table value of 4 = 9.488

With 4 degrees of freedom and at a 5% significance level, the critical value is 9.488. Since the calculated chi-square value (122.9) is much greater than the critical value, we reject the null hypothesis (Table 25). Therefore, there is a significant level of human resource readiness of the Lokoja Local Government Council.

Hypothesis III

H₀: There is no significant level of institutional readiness in the Lokoja Local Government Council.

Table 26. Recall Table for testing Hypothesis 3.

Variables	O _i	E _i	(O _i -E _i)	(O _i -E _i) ²	$\frac{(O_i-E_i)^2}{E_i}$
Strongly Agree	102	56.4	45.6	2079.4	36.9
Agree	86	56.4	29.6	867.2	15.5
Undecided	39	56.4	-17.4	302.8	5.4
Disagree	37	56.4	-19.4	376.4	6.7
Strongly Disagree	18	56.4	-38.4	1474.6	26.1
Total	282				$\chi^2 = 90.6$

Source: Field Survey, 2024

Total number of respondents divided by number of rows

$$E_i = \frac{282}{5} = 56.4$$

$$\chi^2 = 90.6$$

The level of significance is 5% = 0.05

Degree of freedom (v) = (C - 1) (R - 1)

$$V = (5-1) (2-1)$$

$$V = 4$$

The table value of 4 = 9.488

With 4 degrees of freedom and at a 5% significance level, the critical value is 9.488. Since the calculated chi-square value (90.6) is much greater than the critical value, we reject the null hypothesis (Table 26). Therefore, there is a significant level of institutional readiness in the Lokoja Local Government Council.

Discussion of findings

The research findings reveal that all the stated hypotheses were rejected, indicating significant readiness in terms of infrastructure, human resources, institutional capacity, and potential solutions for addressing e-Governance challenges in the Lokoja Local Government Council. This suggests a considerable degree of preparedness for the implementation of e-Governance, aligning with similar studies conducted in various regions, where local governments have shown an increasing level of readiness for adopting technological innovations.

The rejection of the hypothesis that "there is no significant level of infrastructural readiness in Lokoja Local Government Council" highlights the existence of sufficient ICT infrastructure to support e-Governance initiatives. The availability of modern technologies, including reliable internet access, computers, and related hardware, appears to be adequate. This finding resonates with the study by Ajibade et al, which asserts that local governments in Nigeria are gradually embracing technology and improving their ICT infrastructure to support digital governance [4]. Similarly, Dibia et al, found that infrastructural development in local councils is critical for e-Governance success, aligning with the situation in Lokoja [3].

The rejection of the hypothesis on human resource readiness suggests that Lokoja Local Government Council possesses the necessary human capital to manage and execute e-Governance systems. The staff is likely to have the requisite ICT skills, which could be supported by ongoing training programs to keep them updated with technological advancements. This observation aligns with the work of Fatile, who noted that human resource development is a key factor in the successful implementation of e-Governance in Nigerian local governments [11]. Their study emphasized the importance of continuous professional development in ICT to enable staff to adapt to new technologies effectively.

The third hypothesis, which questioned the institutional readiness of the Lokoja Local Government Council, was also rejected. This indicates that the council has established policies, leadership commitment, and organizational structures that support e-Governance. Institutional readiness is critical for any form of technological transformation, as noted by Amin, who

emphasized that effective governance structures, strategic planning, and policy frameworks are essential components for the success of e-Governance projects [6]. Lokoja's alignment with these components suggests that the local government is on the right path in this regard.

Conclusion

Based on the analysis, it can be concluded that Lokoja Local Government Council is significantly ready for e-Governance implementation. The infrastructure required for digital governance is in place, and the human resources are adequately equipped with relevant skills.

Recommendations

Based on these conclusions, it is recommended that:

- While the current infrastructure is adequate, there should be continuous investment in upgrading technology to keep pace with global advancements in e-Governance systems.
- It is crucial to regularly update the skills of the staff through training and development programs to ensure they remain proficient in the latest e-Governance technologies and practices.
- The council should continue to refine its policies and governance structures to support the long-term sustainability of e-Governance. This includes ensuring sufficient budgetary allocation for e-Governance projects and maintaining committed leadership.

Disclosure Statement

The authors declare no competing interests affecting this research.

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