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READINESS OF URBAN LOCAL AUTHORITIES IN ADOPTING ARTIFICIAL INTELLIGENCE IN POLICY PROCESSES: EVIDENCE FROM MUTARE CITY COUNCIL, ZIMBABWE

BY

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ABSTRACT

The study sought to explore the readiness of Zimbabwe urban local authorities in adopting artificial intelligence (AI) in policy processes, focusing on Mutare City Council (MCC). Against the backdrop of the 4th industrial revolution, various technologies have disrupted the status quo and have redefined and redesigned systems, as we know them. In the context of Council, there is no policy formulation, implementation and evaluation without citizen engagement. Citizen engagement is central in all policy processes of all the 92 urban and rural district councils/local authorities in Zimbabwe. The objectives guiding the study were to analyse existing strategies, identify gaps, evaluate readiness and recommend potential AI-based solutions and frameworks suitable to enhance citizen engagement in policy processes by the City of Mutare, Zimbabwe. The study was purely qualitative in nature with City council officials in the form of management and councillors, residents' association representatives and civil society members selected purposively. Interviews were utilised to gather data from participants. Obtained results were analysed thematically. Noteworthy is that a positive relationship exists between wide consultation and the success of a policy proposition. The study revealed that MCC has made progress in the digitalisation of citizen engagement processes but is not ready for robust implementation of AI that has potential to unlock endless opportunities. Currently traditional media (newspaper, notice boards and magazines), social media (WhatsApp, Facebook and Twitter), web presence and Short Message Service (SMS) hotline are some of the methods being utilised. The study revealed digital divide, poor internet connectivity, budget constraints, knowledge gap, and resistance to change as inhibitors to full implementation of AI. The study recommends partnerships, government funding and training of staff and citizens as well as development of policy frameworks to guide integration of AI as measures to enhance flawless adoption of AI. The potential of AI cannot be overemphasised in this digital age but context is of paramount importance to come up with tailor made solutions that speak to all policy actors.

KEY WORDS: Artificial Intelligence, AI, Citizen Engagement, Policy Processes

DECLARATION

I declare that this dissertation is my original work except where sources have been cited and acknowledged. The work has never been submitted, nor will it ever be submitted to another university for the award of a degree.

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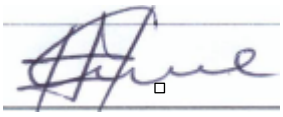
Dr T. Nyikadzino	
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DEDICATION

I would want to dedicate this work to God Almighty, who helped me get through, as well as my immediate and extended family, who supplied me with inspiration and emotional support, allowing me to work hard. I would also like to dedicate this to all local governance practitioners and academicians as well as AI enthusiasts

LIST OF ACRONYMS AND ABBREVIATIONS

AI	Artificial Intelligence
AU	Africa University
CoM	City of Mutare
G2B	Government-to-Business
G2C	Government-to-Citizen
G2E	Government-to-Employee
G2G	Government-to-Government
GDPR	GDPR (General Data Protection Regulation)
ICT	Information Communication Technology
IoT	Internet of Things
ISO	International Standards Organisation
MCC	Mutare City Council
OECD	Organisation for Economic Co-operation and Development
TAM	Technology Acceptance Model (TAM)

DEFINITION OF KEY TERMS

Artificial intelligence (AI) is a branch of computer science that creates systems and software capable of tasks once thought to be uniquely human. It enables machines to learn from experience, adapt to new information, and uses data, algorithms and computational power to interpret complex situations and make decisions with minimal human input. AI can understand language, recognize patterns, solve problems and even demonstrate creativity – often at speeds and scales far beyond our own. (ISO, 2022

Policy Process is normally conceptualized as sequential parts or stages. These are problem identification, agenda setting, policy formulation, policy legitimation, policy implementation and policy evaluation. (Dye, 1981)

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CHAPTER 1: INTRODUCTION

1.1 Introduction

This chapter introduces the study on the readiness of Zimbabwe urban local authorities in adopting artificial intelligence to improve citizen engagement in policy processes. The proposition is that adoption of Artificial Intelligence (AI) has the potential to improve citizen engagement in local government policy processes such as budgets and resolutions. It highlights the challenges local governments face in enhancing citizen participation and service delivery, emphasizing the potential of AI to address these issues and nexus by enabling real-time data collection, better communication, and personalized services. The chapter outlines the research problem, objectives, and questions, with a particular focus on the African context, where digital tools like AI are being explored to modernize governance. Significance of the study, delimitations and limitations of the study, definitions of key terms are also covered in this chapter.

1.2 Background to the Study

Citizen engagement in public policy formulation is a fundamental aspect of democratic governance (Masuku; 2021, Nyikadzino & Doorgapersad, 2020; Chikwawawa, 2019). Nonetheless, in Zimbabwe's local authorities, citizen engagement in public policy formulation is often hindered by apathy, infrastructural challenges, low digital literacy, and limited access to reliable communication channels (Chirisa et al, 2018; Gwakwara et al, 2024). While global cities of the north such as Tallin, Singapore, London and Seoul have begun to experiment with AI-driven tools for civic participation, global cities of the

south such as Mutare continue to face significant barriers, including inadequate internet infrastructure, low levels of digital literacy, and socio-economic inequalities that exacerbate the digital divide (Chigona & Ng'ambi, 2021). The absence of effective mechanisms for citizen engagement in policy decisions has contributed to a disconnect between government actions and the needs of communities as detailed in the Auditor Generals annual reports as well as client/stakeholder satisfaction survey ratings on service delivery. In the wake of devolution enunciated in the 2013 Constitution Amendment (No. 20) Act and the 2023`s President "Call to Action" which speaks to no compromise to service delivery, citizen engagement has become ever so pertinent. Deontological and consequentialist perspectives underpinning devolution view regional governments as vehicles for deepening democracy and promoting development. This stems from the potential of regional governments to harness local resources and stimulate robust public participation asserts (Chakunda and Matenga, 2024)

AI-driven citizen engagement in policy processes offers the potential to bridge the gaps identified above by enabling more inclusive, efficient, and scalable engagement and participation platforms and thus leading to development of comprehensive and responsive policies (Lahdili et al, 2024). AI has the potential to overcome many of these barriers by enabling scalable and efficient digital platforms that can help collect, collate, analyse, and respond to citizens' concerns in real-time. AI enables municipalities to optimize urban planning, improve resource allocation, and deepen citizen engagement. However, its adoption also raises ethical issues like bias, transparency, and trust (Klein, 2023). However, the applicability of AI-driven tools in Zimbabwe's cities remains underexplored, particularly regarding their ability to overcome the unique challenges of

these areas, such as infrastructure limitations, low internet penetration, and the diversity of cultural, linguistic, and socio-economic contexts. Additionally, there is limited research on the ethical considerations and potential biases that may arise in AI systems used in these settings, especially regarding how such technologies might reinforce existing inequalities or fail to represent marginalized voices (Plantinga et al., 2024). Without this consideration, AI could inadvertently leave out certain groups or be skewed by the biases embedded in the data it processes (Naidoo, 2024).

This research seeks to explore the readiness of Zimbabwe`s urban local authorities in adopting Artificial Intelligence to improve citizen engagement in policy processes. It will also focus on understanding the technological, socio-political, and cultural challenges that hinder the successful implementation of AI-driven engagement platforms and identify strategies to tailor or localise these technologies for Zimbabwean cities. The study will further investigate the ethical implications of AI use in Zimbabwean cities, including concerns about data privacy, algorithmic biases, and the risk of digital exclusion during policy formulation, implementation, monitoring and evaluation. By addressing these issues, the research aims to contribute a nuanced understanding of how AI can be used to improve democratic processes in Zimbabwe's urban governance, ensuring that AI tools are both inclusive and reflective of communities' diverse needs, which ultimately speaks to policy success. Again, by focusing on urban local authorities in Zimbabwe using Mutare City Council as a case study, this research also seeks to fill a broader gap in African scholarship on AI and citizen engagement, offering a local perspective on how AI can be used to improve governance in cities, municipalities, town and local boards' areas across the continent.

Concisely, the research will offer policy recommendations for integrating AI into public policy processes in a way that is both culturally relevant and ethically sound, ensuring that the voices of all citizens are not only heard but also meaningfully represented in the policy-making process. It will also contribute to the growing field of AI ethics, providing a critical perspective on the intersection of AI, governance, and socio-economic inequality in developing countries. Ultimately, this research will enhance the understanding of how AI can support the formulation of more inclusive, participatory, and responsive public policies in Zimbabwe. It will contribute to the development of AI-driven platforms that are tailored to the needs of communities, ensuring that technological innovations promote democratic engagement and equitable governance.

1.3 Statement of the Problem

Despite the growing global discourse on the transformative potential of Artificial Intelligence (AI) in public sector governance, the readiness of urban local authorities in developing contexts remains uncertain. Existing literature highlights common challenges in AI adoption in the public sector (Haesevoets, 2025, Mergel 2023, Alamaki 2025). In the face of the growing importance of AI in enhancing governance, In Zimbabwe, local authorities such as Mutare City Council face mounting pressure to improve policy effectiveness, transparency, and service delivery through data-driven innovation. In essence Mutare City continues to face significant challenges in engaging citizens effectively in local policy processes. Reports from UCAZ Urban Councils Association of Zimbabwe (2022) and the Auditor General (2023) suggests that public attendance at policy consultations such as budgets, awareness campaigns, ward feedback meetings and full council meetings in Mutare is very low. Many residents are either unaware of policy

developments or lacking access to formal participation channels. While over 60 % of the urban population in Mutare have access to mobile internet (POTRAZ, 2023), there is a lack of digital engagement platforms for civic feedback. This shows a missing opportunity to leverage existing connectivity. Internal audits (Mutare City Council Annual Report, 2022) shows that policy consultation data is collected manually, stored inconsistently, and rarely analysed for evidence-based policy making. Besides, the local authority's current strategies are outdated; they lack clear pathways for integrating AI in policy processes. This points to a gap in institutional preparedness.

From a theoretical perspective, a critical gap exists in understanding Zimbabwe urban local authorities' readiness for AI adoption in citizen engagement, particularly regarding the capacity of key policy actors and the citizens themselves to integrate AI solutions into policy processes. Existing studies have largely concentrated on national-level or technical dimensions of AI adoption (Babsek et al 2025), leaving a gap in understanding how readiness is perceived and constructed at the local government level before, during, and after policy implementation. This study therefore seeks to explore the readiness of Mutare City Council to adopt AI in its policy processes, examining the institutional, cultural, and contextual factors that influence this readiness. The readiness of local governments, including the necessary infrastructure and political will, plays a vital role in the successful integration of AI tools into public policy (Molobela et al, 2025; Niyitunga, 2024). Through a qualitative research design employing interviews, document analysis, and thematic interpretation, the study aims to generate rich insights that can inform strategies for enhancing AI readiness in urban local governance and policy processes.

1.4 Research Objectives

To achieve the overall goal, the study is going to focus on the following objectives;

I. To identify the specific gaps in citizen engagement in policy processes in the City of Mutare that necessitates the adoption of AI-driven solutions.

II. To examine factors and evaluate the preparedness of the City of Mutare for adopting AI-driven tools to enhance citizen engagement in policy processes.

III. To recommend strategies for effective adoption of AI-driven citizen engagement tools at City of Mutare?

1.5 Research Questions

I. How appropriate are strategies implemented by the City of Mutare to engage citizens in policy processes?

II. What are the main factors that influence the City of Mutare's readiness to adopt AI for citizen engagement in policy processes?

III. What evidence-based AI solutions could be adopted to improve citizen engagement in policy processes?

IV. What strategies can be developed for the successful adoption of AI-driven citizen engagement tools

1.6 Assumptions of the Study

First, the research assumes that there are significant gaps in citizen engagement within Mutare City`s policy processes, particularly in policy formulation, implementation, and evaluation, which necessitate the adoption of AI to enhance participation. The study also

assumes that Mutare's technological infrastructure and digital literacy are currently insufficient to support the widespread adoption of AI-driven citizen engagement tools. Additionally, the study assumes that while Mutare's local government officials are open to adopting AI, they face barriers such as limited resources and technical expertise. It is further assumed that citizens will engage with AI-driven platforms if they are accessible, user-friendly, and culturally appropriate. Lastly, the research assumes that the adoption of AI tools will improve public trust and transparency in governance.

The study hypothesizes that AI-driven tools will significantly enhance citizen engagement in policy processes in Mutare and that the city's current infrastructure and digital literacy levels are insufficient for full AI adoption. It also hypothesizes that there is a positive relationship between the city's preparedness (infrastructure, political will, and public acceptance) and the successful adoption and use of AI tools. Furthermore, it posits that AI adoption will help bridge socio-economic and digital divides in engagement, making participation more inclusive, and will improve transparency and accountability in the policy-making processes of Mutare.

1.7 Significance of the Study

The significance of this study lies in its potential to address critical challenges in citizen engagement within Zimbabwe's urban governance, particularly in the City of Mutare. By exploring the readiness in adoption of AI-driven tools for citizen participation, this research can contribute to transforming local governance, enhancing transparency, inclusivity, and accountability. The findings could provide valuable insights for Mutare's

local government and other urban authorities in Zimbabwe regarding the feasibility and benefits of integrating AI into public policy processes.

One of the key contributions of this study is its potential to improve citizen engagement. The research explores how AI tools can create effective platforms for citizens to participate in the policy formulation, implementation, and evaluation processes. This could help bridge the gap between the government and its citizens, fostering a more participatory democratic process. In turn, this can lead to better-informed policies that more accurately reflect the needs and priorities of the local population.

Additionally, this study is significant because it could contribute to bridging the digital divide. By addressing the infrastructural and digital literacy barriers, the research could provide strategies to make AI tools more accessible to diverse populations, including marginalized and digitally excluded groups. This ensures more inclusive participation in policy decisions, wherein all segments of society have an opportunity to engage in governance processes.

The study is also important for promoting AI integration in governance. By assessing Mutare's readiness for AI adoption, the research provides valuable insights into the challenges and opportunities of integrating such technologies into local government systems. This can serve as a roadmap for other cities in the Global South that face similar socio-economic and infrastructural challenges, encouraging wider adoption of AI tools in urban governance.

Moreover, the research has the potential to foster trust and transparency in local governance. AI-driven citizen engagement platforms can improve communication

between citizens and the government, offering real-time feedback and enhancing transparency in decision-making processes. By strengthening these mechanisms, the study could help rebuild public trust, reduce corruption, and create more accountable governance systems, which are vital for a functioning democracy.

Finally, this study is significant in its contribution to policy and governance development. The recommendations generated from this research could inform policy reforms, guiding the creation of frameworks that support the ethical and effective integration of AI technologies in governance. This ensures that technological solutions are implemented in a way that upholds ethical standards such as data privacy, algorithmic fairness, and inclusivity.

In conclusion, the study's significance lies in its potential to provide actionable insights that will enhance citizen engagement through AI, making governance more responsive, inclusive, and accountable. It also aims to contribute to the responsible and ethical use of AI in urban governance, ensuring that technological solutions work for all members of society, particularly in cities like Mutare.

1.8 Delimitations of the Study

The delimitation of this study is focused on the City of Mutare, Zimbabwe, specifically examining how AI-driven tools can improve citizen engagement in local authorities policy processes, including formulation, implementation, and evaluation. It concentrates solely on AI technologies and excludes other forms of digital engagement or broader technological challenges. The research primarily involves local government officials, councillors and citizens of Mutare who are key informants in this study. The period of the

study is contemporary, focusing on the current technological and socio-political context of Mutare covering the period of 2024-2025.

1.9 Limitation of the Study

The study is limited by factors such as the geographical focus on Mutare, technological constraints, data availability, time and resource limitations, and the scope of stakeholder involvement. Additionally, resistance to change, as well as the ethical and legal challenges surrounding AI adoption, may affect the research findings. The study focused on short-term implications, leaving long-term outcomes unexplored. These limitations should be taken into account when interpreting the results and recommendations of the research.

CHAPTER 2: REVIEW OF RELATED LITERATURE

2.1 Introduction

The review of related literature highlights the significance of understanding AI adoption in governance, particularly within the African context. It emphasizes the role AI plays in improving citizen engagement and governance efficiency, with a specific focus on local governments. The review will cover key themes such as technological readiness, infrastructure, strategies, and challenges like data privacy and public trust. It also compares African experiences, particularly Zimbabwe, with global trends and identifies research gaps. The review aims to provide a foundation for this study on AI's potential for enhancing citizen participation in local government policy processes.

2.2 Theoretical Framework

The theoretical framework of this study is based on the technology acceptance model (TAM). Technology Acceptance Model (TAM) has been one of the most influential models of technology acceptance, with two primary factors influencing an individual's intention to use new technology being perceived ease of use and perceived usefulness. The Technology Acceptance Model (TAM) has been used in research to explore the acceptance of new e-technology or new e-services (Davis, 1989; Davis & Venkatesh, 1996). TAM is one of the most effective contributions of Ajzen and Fishbein's theory of reasoned action (TRA). A relationship has been found between the beliefs of users about a technology's usefulness and the attitude and the intention to use the technology. The Figure 2.1 below

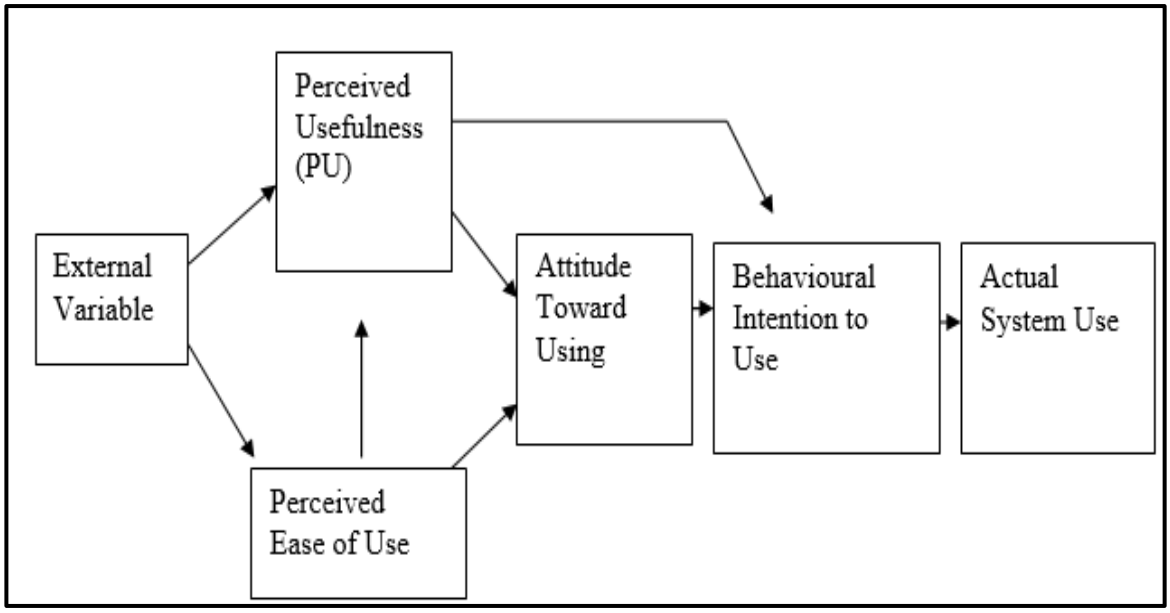

Figure 2.1 Technology Acceptance Model (TAM) Source Davis et al., 1989

2.3 Relevance of the Theoretical Frame to the Study

The relevance of the theoretical framework to this study is essential as it provides the guiding concepts and perspectives needed to explore and understand the dynamics of AI adoption for citizen engagement in the City of Mutare. The theory helps address a specific aspect of the research, contributing to a comprehensive analysis of the challenges, opportunities, and implications of using AI-driven tools in local governance. The Technology Acceptance Model (TAM) is crucial to understanding how both local government officials and citizens in Mutare will perceive and accept AI tools for citizen engagement in policy processes. This model will help identify the factors that influence the adoption of AI, such as the perceived ease of use and the perceived usefulness of the technology. It provides a basis for evaluating whether AI tools are likely to be embraced

by key stakeholders/ policy actors, and what barriers might hinder their acceptance. TAM directly informs the study's objective of assessing the readiness of Mutare for AI adoption.

2.4 Literature Review

2.4.1 E-government: The Concept

E-Government is commonly conceptualized as governments' use of Information and Communication Technologies (ICTs) combined with organizational change to improve the structures and operations of government (Field et al., 2003). In addition, the implementation of e-government is expected to help governments deliver services and transform relations with citizens, businesses and other arms of government (Grönlund & Horan, 2005; Guida & Crow, 2009). In essence, e-Government aims to increase the accessibility, accountability, transparency, and responsiveness of government functions through the adoption of digital tools and technologies (Heeks, 2006). E-Government enables the delivery of government services via digital platforms, which reduces physical barriers, enhances communication, and promotes greater civic participation. As AI technologies are increasingly integrated into e-government platforms, the scope and efficiency of service delivery are expanded, enabling more personalized, real-time interactions and better public engagement.

The dimensions of e-government reflect the multiple layers of interaction between government institutions and citizens, businesses, employees, and other governmental entities. These dimensions represent the keyways in which technology is deployed to improve governance and citizen engagement, and they provide a structured way to assess

the effectiveness and scope of e-government systems. Below is a concise rundown of each of the dimensions namely Government-to-Citizen (G2C), Government-to-Business (G2B), Government-to-Government (G2G) and Government-to-Employee (G2E) with a focus on how they contribute to an efficient and responsive governance system. The Government-to-Business (G2B) dimension focuses on the relationship between the government and the private sector, facilitating business-related processes through e-government platforms. This includes simplifying procedures such as business registration, licensing, and tax compliance (Nurdin et al, 2011). Additionally, G2B systems often include e-procurement platforms that allow businesses to engage with government tenders, fostering an environment that supports economic growth and development (United Nations, 2014). AI can enhance G2B services by automating regulatory processes, optimizing procurement procedures, and providing businesses with tailored advice on compliance and regulations, ultimately reducing barriers for businesses to interact with government institutions (Chadwick & May, 2003).

The Government-to-Government (G2G) dimension pertains to the interactions and collaborations between different levels of government, such as local, regional, and national authorities. The aim is to enhance the efficiency of government processes through seamless data sharing, communication, and joint decision-making (Linders, 2012). G2G interactions include activities such as coordinating policies, sharing information and resources, and integrating government services across various departments. In this dimension, AI can play a pivotal role in improving internal communication, enabling predictive data analytics, and streamlining decision-making processes (Bertot et al., 2010).

Automated systems can be used to track resources, improve budget allocations, and predict future trends, allowing government entities to collaborate more effectively and respond to societal needs in a timely manner (Carter & Belanger, 2005).

The Government-to-Employee (G2E) dimension focuses on the interaction between government agencies and their employees. This includes the provision of digital tools for employees to manage schedules, access-training resources, and communicate internally (United Nations, 2018). G2E systems aim to improve administrative efficiency, enhance productivity, and support professional development within government institutions. The integration of AI in G2E services can optimize routine tasks, automate payroll systems, and offer personalized training modules for government employees (Carter & Belanger, 2005). AI-powered chatbots, for example, can streamline administrative workflows and enable faster resolution of employee queries, which can lead to improved workforce satisfaction and efficiency (Davenport & Kirby, 2016).

The Citizen-to-Citizen (C2C) dimension refers to the use of ICT to enable communication, collaboration, and interaction among citizens. This dimension is vital for fostering social capital, building community engagement, and enhancing democratic participation (Harris & Cummings, 2006). Online forums, social media platforms, and crowdsourcing initiatives are common examples of C2C e-government services, enabling citizens to collaborate on community issues, share resources, and participate in civic activism. AI has the potential to improve C2C engagement by facilitating online discussions, identifying

trending issues, and fostering more meaningful interactions among citizens (Boulianne, 2009). AI tools can help moderate online forums, assess public sentiment, and enhance transparency in online civic engagement, thereby making governance more inclusive (Gartner, 2019).

The E-Government Infrastructure dimension refers to the underlying technical and physical infrastructure that supports the digital services provided by governments. This includes the ICT infrastructure required to ensure reliable internet connectivity, secure cloud platforms, and robust cybersecurity measures (Heeks, 2006). For AI tools to be effectively implemented in e-government, governments must invest in advanced IT infrastructure, such as data storage solutions and cybersecurity frameworks, to support the secure and efficient operation of AI-driven systems. Ensuring the availability of accessible platforms and the security of citizen data is critical for the success of AI in e-government (Gartner, 2019)

The E-Democracy and E-Participation dimension is focused on increasing public participation in democratic processes through digital platforms. This includes e-voting, online consultations, digital petitions, and open government initiatives (Davies, 2012). AI can contribute to enhancing e-democracy by facilitating more inclusive policy-making, improving public access to government data, and ensuring a more equitable distribution of information. AI tools can analyze public feedback, predict trends in public opinion, and identify areas where citizens are underrepresented, ultimately supporting more democratic

and transparent governance (OECD, 2003). AI also ensures that marginalized or underserved communities are not excluded from the decision-making process, fostering greater political participation and civic engagement.

E-government is a multi-dimensional framework that integrates ICT to enhance various forms of interaction between government and its stakeholders. Its dimensions G2C, G2B, G2G, G2E, C2C, infrastructure, and e-democracy help to break down the ways technology can improve governance and service delivery. The incorporation of AI into these dimensions holds the potential to enhance efficiency, reduce costs, improve citizen engagement, and support more transparent and inclusive governance systems. As AI technologies evolve, governments will need to adapt and invest in infrastructure, while also addressing ethical considerations to ensure that AI-driven systems serve all citizens equitably.

2.4.2 Engagement strategies used by local authorities in policy processes.

Citizen engagement is a critical component of local governance, and its significance cannot be underestimated. Artificial Intelligence (AI) refers to the simulation of human intelligence in machines designed to perform tasks typically requiring human cognition, such as decision-making, problem-solving, learning, and natural language processing (Shaik et al, 2023) AI systems can analyse vast amounts of data, recognize patterns, make predictions, and improve decision-making processes over time through machine learning (Ziyad, 2019). AI has applications across various sectors, including governance, where it holds significant potential to enhance citizen engagement, policy formulation, and service

delivery. The integration of AI into public policy and administration can transform how governments interact with citizens, making governance more transparent, responsive, and inclusive. Participatory governance is enhanced through AI platforms that crowdsource citizen input. Denmark's budget allocation systems exemplify this, fostering transparency and trust (Brown & Wilson, 2023). Additionally, New York City's permit approval processes have been expedited by 40% using AI-driven tools (Carter & Nguyen, 2023). Another notable example is Iceland's crowdsourced constitution, which demonstrated how collective intelligence frameworks can engage citizens in shaping public policies. This initiative highlights the transformative potential of participatory governance models powered by collective intelligence (Boucher et al, 2023).

AI can play a central role in fostering citizen engagement by facilitating direct, personalized, and efficient communication between governments and their citizens. One of the most powerful capabilities of AI is its ability to process large amounts of data in real-time. AI also improves accessibility for citizens with disabilities by providing adaptive interfaces. For example, natural language processing (NLP) tools enable voice-controlled navigation of municipal services, ensuring inclusivity in digital transformation efforts (Desouza & Jacob, 2020). These advances highlight AI's capacity to create more equitable governance systems. In the context of policy processes, AI can help governments gather and analyse citizen feedback, identify emerging trends or concerns, and predict the impact of policy decisions on different communities. This dynamic and data-driven approach allows policymakers to make more informed decisions that reflect the needs and preferences of the public, leading to more inclusive policy outcomes

(Gartner, 2019). Furthermore, AI tools like chatbots, virtual assistants, and AI-based recommendation systems can serve as direct communication channels, offering citizens a platform to engage with government services or voice their opinions, 24/7 (McKinsey & Company, 2020).

One of the key aspects of AI in fostering citizen engagement is its potential to enhance accessibility. In many urban areas, particularly in developing regions, there are significant barriers to traditional modes of participation, such as geographical distance, lack of time, or limited access to physical government offices (Chirisa et al, 2023. AI-driven platforms, such as mobile apps and online portals, can break down these barriers by allowing citizens to engage in policy discussions, submit feedback, or participate in e-consultations from anywhere at any time. This is particularly relevant in the context of devolution, where local governments are tasked with addressing community needs. By facilitating easier access to policy formulation and feedback processes, AI can help ensure that marginalized or underrepresented groups have a voice in decision-making (Chakunda, 2024). Moreover, AI can significantly improve policy evaluation and feedback loops. Traditionally, citizen engagement in policy evaluation has been limited to surveys or public forums, which are often time-consuming and may not reach a broad cross-section of society. AI, however, can help by automatically analysing data from a variety of sources such as social media, surveys, and online petitions to track public sentiment, identify areas of dissatisfaction, and assess the effectiveness of policies in real-time (Linders, 2012). Sentiment analysis tools powered by AI can process vast amounts of unstructured data to gauge public opinion, enabling policymakers to adapt and refine policies promptly to

reflect citizens' concerns (*ibid*). AI's ability to provide continuous and real-time analysis thus fosters a more responsive and dynamic approach to policy evaluation.

AI also plays a role in improving inclusivity in public policy engagement. Traditional engagement platforms may inadvertently favour more vocal or better-resourced groups, leaving certain demographics without adequate representation. By utilizing AI to ensure that feedback mechanisms are not biased toward specific groups, governments can increase inclusivity in policy discussions. For example, AI tools can analyse demographic data to ensure that feedback is representative of diverse communities and ensure that marginalized or underrepresented voices are heard (Heeks, 2006). Moreover, AI systems can be designed to handle multiple languages, dialects, or communication styles, enabling citizens from diverse cultural or linguistic backgrounds to engage meaningfully in policy processes. AI's role in decision-making also contributes to improving citizen engagement by facilitating more informed, data-driven policy choices. By using machine learning algorithms, governments can simulate the impact of various policy alternatives based on historical data and predictions about future trends. This allows policymakers to visualize potential outcomes and better understand the consequences of their decisions before they are implemented. For instance, AI-powered predictive analytics can help local governments anticipate the impact of infrastructure projects on different communities or predict the effects of new regulations on the local economy. When citizens see that decisions are backed by evidence-based insights, trust in government processes is likely to improve.

However, while AI offers significant potential for improving citizen engagement, it also raises ethical concerns that need to be carefully considered. These concerns include issues related to data privacy, algorithmic bias, and the digital divide. AI systems rely heavily on data, which can be sensitive and personal. Governments must ensure that appropriate data protection measures are in place to safeguard citizens' privacy and prevent misuse of information (Shilongo et al., 2024). Furthermore, AI algorithms may unintentionally perpetuate biases if they are trained on biased data or if they fail to account for diverse cultural, social, and economic contexts (Niyitunga, 2024). Governments must ensure that AI tools used for citizen engagement are fair, transparent, and accountable (Gartner, 2019). Lastly, the adoption of AI in policy processes risks exacerbating the digital divide, as some segments of the population may lack access to the necessary digital infrastructure or digital literacy to fully participate in AI-driven platforms.

In conclusion, AI has the potential to revolutionize citizen engagement in policy processes by enhancing accessibility, inclusivity, and responsiveness. By enabling real-time data analysis, personalized interactions, and broader participation, AI can ensure that government policies are more reflective of citizens' needs and preferences. However, the successful deployment of AI tools in governance requires addressing the ethical and infrastructural challenges that may arise, ensuring that AI systems are equitable, transparent, and secure. As AI continues to evolve, its role in governance will undoubtedly become more central, helping to foster more democratic, transparent, and accountable public administration.

2.4.3 AI-based solutions in policy processes.

In local authorities, especially in developing countries like Zimbabwe, there are significant gaps in citizen engagement that hinder the effective formulation, implementation, and evaluation of public policies. These gaps are primarily caused by inefficient communication channels, a lack of accessibility, and limited citizen participation in governance processes. The absence of robust platforms for engagement often leads to disconnect between citizens and their local governments, reducing transparency and hindering democratic processes. Traditional engagement methods, such as town hall meetings, public forums, and printed communications, have shown to be insufficient in ensuring broad-based participation, especially in urban areas with large populations and complex social dynamics.

One of the most pressing challenges is the lack of efficient communication channels between local authorities and citizens. Many local governments still rely on outdated means, such as newspaper advertisements or public announcements, which often fail to reach large sections of the population (Mukuzunga et al, 2021). This limited access to information prevents many citizens from engaging with policy issues and participating in consultations that affect their daily lives. AI has the potential to address this communication gap by facilitating real-time interaction through digital platforms, enabling local authorities to disseminate information quickly and efficiently while allowing citizens to engage in discussions and provide feedback instantaneously (McKinsey & Company, 2020). AI-powered tools such as chatbots and virtual assistants can enable two-way communication, allowing local governments to answer citizens'

inquiries and address concerns promptly, thereby improving accessibility and responsiveness.

Additionally, a lack of digital literacy and unequal access to technology compounds the challenges of citizen engagement in many local authorities. In regions where internet infrastructure is poor or where citizens have limited access to smartphones or computers, participation in digital platforms remains an unrealistic option for many. The digital divide exacerbates existing inequalities, making it difficult for marginalized groups to be involved in policy processes (Gwakwara, 2024). In Zimbabwe, for example, a significant portion of the population remains digitally disconnected due to factors such as high costs of technology, limited internet coverage, and low levels of digital literacy (Munemo & Chigora, 2022). AI can help overcome these challenges by providing user-friendly, mobile-first platforms that can function on basic devices or feature low-bandwidth capabilities. Furthermore, AI tools like voice assistants can assist individuals with low digital literacy or those who face challenges using text-based systems (Gartner, 2019).

Another critical gap in citizen engagement is the lack of inclusivity in current participatory processes. Traditional engagement methods often favour individuals with higher socioeconomic status, better access to education, or more time to attend public meetings. This leaves behind certain groups, including rural populations, youth, elderly individuals, and marginalized communities, whose needs and concerns are not adequately addressed in policymaking (Linders, 2012). AI has the potential to address these disparities by using data analytics to identify underrepresented groups and tailor engagement strategies to ensure that all voices are included. AI-driven platforms can engage citizens in multiple languages and offer alternative ways to participate in policy discussions, such as through

SMS surveys or voice-based feedback systems, which are more accessible to people with diverse needs and backgrounds (Shilongo et al., 2024).

Moreover, the lack of real-time feedback mechanisms and policy evaluation systems in local authorities significantly limits the ability of governments to assess the impact of their policies on the ground. Traditional methods of gathering feedback, such as suggestion boxes, surveys or post-policy evaluations, often fail to capture dynamic changes in public sentiment or the effects of policy decisions as they unfold. As a result, local governments may only receive feedback long after a policy has been implemented, making it difficult to address issues promptly. AI can help close this gap by enabling continuous sentiment analysis and predictive analytics. By analysing data from various sources, including social media, public forums, and citizen interactions with AI-driven platforms, governments can track public opinion and make data-driven adjustments to policies in real time (Bertot et al., 2010). These tools also enable local authorities to identify emerging issues and respond proactively, enhancing the overall responsiveness of governance systems.

Finally, there is a significant transparency deficit in many local governance structures, which undermines public trust. Without clear, accessible mechanisms for tracking policy implementation or outcomes, citizens may feel disconnected from the decision-making process as reflected by the various commissions of inquiry. AI-driven platforms can enhance transparency by providing citizens with detailed information on the status of government projects, policy decisions, and public spending. For example, AI systems can offer real-time updates on the progress of infrastructure projects, government budgets, and policy impacts, fostering greater accountability and trust between the local authorities and the public (Heeks, 2006). This level of transparency is particularly important in contexts

where corruption or mismanagement is a concern, as AI can help to track and report irregularities, making it easier for citizens to monitor and hold governments accountable.

In conclusion, the gaps in citizen engagement in local authorities including inefficient communication, the digital divide, lack of inclusivity, absence of real-time feedback mechanisms, and insufficient transparency necessitate the adoption of AI-driven solutions. AI has the potential to transform citizen engagement by making it more accessible, inclusive, transparent, and data driven. By leveraging AI technologies, local governments can overcome existing barriers and create more effective, responsive, and participatory governance systems. As urban populations continue to grow and governance challenges become more complex, AI could be a critical tool in fostering deeper civic engagement and strengthening democratic processes at the local level.

2.4.4 Challenges faced in adopting AI in policy processes

The adoption of Artificial Intelligence (AI) in local authorities is a complex and multifaceted process that requires specific conditions to be met for successful implementation and operation. For AI to be effectively integrated into governance processes, certain technical, organizational, and societal conditions must be in place. These conditions span areas such as infrastructure, policy, governance, digital literacy, and stakeholder readiness, all of which play a crucial role in ensuring that AI tools can be used to enhance citizen engagement and improve public administration.

The successful deployment of AI technologies in local authorities is heavily reliant on having robust technological infrastructure. Local authorities must have access to reliable and high-speed internet, data storage capabilities, and modern computing resources to support AI applications (Schrijvers et al, 2023). Without sufficient infrastructure, the functionality of AI tools particularly those that rely on cloud computing, real-time data processing, or machine learning models will be significantly limited (Rahwan et al. 2019). In regions with inadequate internet access or unstable power supply, implementing AI could be impractical, resulting in ineffective solutions. Therefore, local governments must prioritize upgrading infrastructure to ensure they can support the technological demands of AI systems (Chigona et al, 2021). This includes ensuring that data centers are capable of hosting AI systems, and that there are efficient networks for data sharing and communication across the authority's various departments.

For AI adoption to be meaningful, digital literacy among both public officials and citizens is a critical factor. Many local governments, especially in developing regions, face challenges related to low levels of digital literacy, which can hinder both the effective use of AI systems by government employees and citizen participation in digital governance platforms (Gwakwara et al, 2024). To overcome this challenge, local authorities must invest in capacity building initiatives, which include training government staff on how to use and manage AI tools, as well as educating citizens on how to engage with AI-powered platforms. Public awareness campaigns and training workshops can be essential to ensuring that both government employees and citizens understand how to effectively interact with AI technologies (Shilongo et al., 2024). Moreover, for AI to be effective in

local governance, it is crucial that local authorities foster a culture of continuous learning and adaptation, ensuring that both citizens and public servants are equipped with the skills to work in an increasingly digital environment.

The availability of quality data and the establishment of clear data governance frameworks are essential for the effective implementation of AI in local government operations. AI systems thrive on large datasets to generate insights and inform decision-making. For this reason, local authorities need to ensure that they have mechanisms in place to collect, store, and manage data in a secure and organized manner. Furthermore, policies surrounding data privacy and security are of utmost importance when dealing with sensitive citizen information. There must be clear regulations in place to protect citizens' privacy and to ensure that data is used responsibly (Chirisa, 2018). This involves creating policies that outline how data will be collected, stored, processed, and shared, as well as ensuring compliance with global data protection standards such as the GDPR (General Data Protection Regulation) in the European Union (Bertot et al., 2010). Without these frameworks, AI adoption could lead to data misuse, public distrust, and legal challenges.

The role of political will and strong leadership support cannot be overstated in the successful adoption of AI in local authorities. Political leaders must be committed to modernizing governance and must champion the integration of AI technologies. This includes securing funding for AI initiatives, creating favourable policies, and supporting innovation within the public sector (McKinsey & Company, 2020). Local government

leaders also need to provide clear direction and resources to implement AI initiatives successfully. Support from leadership ensures that AI adoption becomes a priority within local authorities, motivating public servants and citizens to engage with and embrace AI-driven solutions. Moreover, leaders must also act as change agents, driving cultural and organizational shifts towards data-driven, AI-assisted governance.

AI systems have the potential to perpetuate bias and inequality if not carefully designed and monitored. Therefore, ensuring that AI tools used in local governance are ethically sound and free from algorithmic bias is an essential condition for their successful adoption. Local authorities must develop legal and ethical guidelines that govern the use of AI to prevent discrimination, uphold fairness, and ensure transparency in AI processes. These guidelines should focus on ensuring that AI systems do not unfairly disadvantage certain groups of people, such as minorities or those with limited digital access (Chakunda, 2024). Additionally, ethical considerations should encompass concerns regarding accountability, transparency in decision-making, and the maintenance of citizen trust. Local authorities must ensure that AI systems are explainable and that their decisions are transparent, allowing citizens to understand how decisions are made (Linders, 2012).

Finally, the involvement of key stakeholders, including citizens, civil society organizations, and private sector partners, is necessary for AI adoption in local authorities. AI systems must be designed and implemented with input from a wide range of stakeholders to ensure that they reflect the needs and concerns of all community members.

This participatory approach fosters public trust in AI initiatives and ensures that the technologies are inclusive, equitable, and responsive to the diversity of the population (Heeks, 2006). Without trust from the public, AI adoption in local governance is likely to face resistance. Therefore, local authorities should engage in public consultations, pilot projects, and feedback loops to allow citizens to be part of the decision-making process and to address any concerns related to AI use in governance.

In conclusion, the successful adoption of AI in local authorities hinges on several key condition's strong technological infrastructure, digital literacy and capacity building, robust data governance, leadership support, ethical and legal frameworks, and active stakeholder involvement. Local authorities that prioritize these conditions can harness the power of AI to enhance citizen engagement, improve policy implementation, and foster greater transparency and accountability in governance.

2.4.5 Factors influencing the adoption of AI in African local government and governance

The adoption of Artificial Intelligence (AI) in African local governments is influenced by a combination of technological, socio-economic, political, and organizational factors. These factors determine the capacity of local governments to incorporate AI-driven solutions into governance processes and to enhance citizen engagement, public policy, and service delivery. Understanding these factors is essential for developing strategies that can enable local governments to leverage AI for improved governance outcomes.

One of the most significant factors influencing AI adoption in African local governments is the availability and quality of technological infrastructure. For AI technologies to function effectively, local governments need access to reliable internet connectivity, data storage systems, and computational resources. Unfortunately, many African countries still face challenges related to poor internet connectivity, power outages, and insufficient data centers, particularly in rural areas. These challenges can make it difficult to implement AI-based solutions that require substantial bandwidth and consistent power supply (Bertot et al., 2010). In cities with stronger infrastructure, such as Nairobi, Johannesburg, or Lagos, there may be better potential for AI adoption, but even then, disparities in infrastructure between urban and rural areas must be addressed (Chigona & Chigona, 2021). Additionally, AI systems often depend on high-quality, large-scale datasets to function optimally, but the lack of comprehensive data collection and data-sharing mechanisms within African local governments limits their ability to implement AI effectively.

Digital literacy among both government employees and the general population is a crucial factor for AI adoption in local governments. Low digital literacy levels can hinder the ability of local government employees to utilize AI tools effectively. Similarly, citizens may not be able to engage with AI-driven platforms for public participation or service delivery if they lack the necessary digital skills (Chirisa, 2018). Research suggests that African governments must invest in capacity-building initiatives to equip both public servants and citizens with the skills needed to work with digital technologies (Shilongo et al., 2024). Training and awareness programs should be designed to ensure that digital literacy extends beyond basic computer skills to include an understanding of how AI

systems work and how they can improve governance and service delivery (Gwakwara, 2024). Governments should also foster inclusive education systems that ensure marginalized communities, such as rural populations, women, and youth, are not excluded from the digital transformation.

The political will of local government leaders is a key determinant of AI adoption. Local government leaders must understand the potential of AI to improve governance processes, such as enhancing transparency, efficiency, and citizen engagement (Sithole & Nyathi, 2017). Leaders also need to advocate for the necessary policy changes and allocate resources for AI implementation. However, in many African local governments, there may be resistance from political leaders who are hesitant to embrace new technologies due to fear of disruption or a lack of understanding of AI's benefits (Chakunda, 2024). Strong leadership is essential in driving AI initiatives, securing funding, and overcoming institutional inertia. Political support ensures that AI adoption aligns with broader national development agendas and public sector reforms, and it helps create an environment conducive to technological innovation (Chigona & Chigona, 2021).

The financial capacity of local governments is another critical factor in determining AI adoption. AI technologies can be expensive to implement, requiring significant investments in infrastructure, data storage, training, and personnel. Given the limited budgets available to many African local governments, securing funding for AI adoption can be a significant hurdle (Heeks, 2006). Many local governments operate under financial constraints, which limit their ability to prioritize AI over other pressing issues, such as health, education, or infrastructure development. To overcome this barrier, local governments may need to explore alternative funding sources, such as public-private

partnerships, international grants, or development aid, to finance AI initiatives (Bertot et al., 2010). Furthermore, local governments need to ensure that AI investments deliver measurable benefits in terms of improving public services, reducing costs, and enhancing transparency to justify the financial outlay.

For AI adoption to be effective and equitable, regulatory and ethical frameworks must be in place. These frameworks are necessary to govern the collection, processing, and sharing of data, as well as to address concerns related to privacy, accountability, and algorithmic bias (Chirisa, 2018). The lack of comprehensive data protection laws and AI governance policies in many African countries poses a significant challenge to AI adoption in local governments (Chakunda, 2024). AI technologies raise important ethical issues, particularly regarding the risk of reinforcing existing social biases and inequalities. AI systems that are trained on biased data could disproportionately affect vulnerable or marginalized communities, such as women or ethnic minorities, if these biases are not identified and corrected (Linders, 2012). Therefore, local governments must work with national policymakers, legal experts, and civil society organizations to develop regulatory frameworks that ensure the ethical use of AI, protect citizen privacy, and promote fairness and transparency in AI applications.

Public trust in AI technologies is essential for their successful adoption. In many African countries, there may be significant socio-cultural resistance to AI, driven by fears about job displacement, the loss of human agency in decision-making, and concerns about surveillance and privacy (Gwakwara, 2024). The public may also be sceptical about the transparency and accountability of AI systems, especially if there is little understanding of how these systems work. To build trust, local governments must engage with citizens

through awareness campaigns, public consultations, and community dialogues to demystify AI and its potential benefits for improving governance. Additionally, citizens should be involved in the design and implementation of AI solutions to ensure that the technologies meet their needs and address their concerns (Shilongo et al., 2024). Public trust can also be enhanced by ensuring that AI systems are transparent, explainable, and accountable for their decisions.

Finally, global influences and collaboration with international organizations, donors, and the private sector play a significant role in shaping AI adoption in African local governments. Many African governments look to examples from Global North countries, such as Estonia, Singapore, and South Korea, where AI has been successfully implemented in local governance (Chigona & Chigona, 2021). International organizations, such as the United Nations and the World Bank, can provide technical assistance, funding, and expertise to support AI adoption in African local governments. Furthermore, public-private partnerships can help local governments access the technology, expertise, and financing needed to implement AI solutions effectively (Heeks, 2006). Collaborative efforts at the regional and international levels can help address common challenges and promote knowledge exchange regarding AI adoption.

In conclusion, the adoption of AI in African local governments is influenced by a variety of interrelated factors, including technological infrastructure, digital literacy, political will, financial resources, regulatory frameworks, public trust, and global collaboration. Local governments must address these factors in a comprehensive and strategic manner to harness the potential of AI technologies for improved governance, citizen engagement, and service delivery. As AI continues to evolve, local governments across Africa must

ensure they are prepared to meet the challenges and leverage the opportunities presented by AI to improve public sector outcomes

2.4.6 Case Studies and Country Experiences

The integration of Artificial Intelligence (AI) into local government operations has gained significant attention globally, particularly in enhancing citizen engagement, improving service delivery, and fostering transparency in governance. Several cities worldwide, including some from Africa, have adopted AI-driven solutions to address governance challenges. Across Africa, AI is increasingly being adopted to enhance service delivery, improve governance, and engage citizens more effectively. Various local governments and municipalities are experimenting with AI technologies, some of which have successfully integrated AI into their operations. Here are a few case studies in Europe, Asia and Africa that demonstrate how AI is being utilized at the local government level.

2.4.6.1 Tallinn, Estonia: AI in E-Governance and Public Services

Tallinn, the capital of Estonia, is one of the most advanced examples of AI adoption in local government, particularly in e-governance. Estonia's commitment to digital governance is well established through its e-Estonia initiative, which aims to make government services digital and accessible to all citizens. The city of Tallinn has embraced AI and machine learning tools to streamline local governance, automate public service delivery, and enhance citizen engagement.

A key AI implementation is the use of chatbots and AI-powered platforms for citizen interaction. These systems allow residents to access government services, file complaints, and make inquiries through automated interfaces that provide immediate responses.

Additionally, Tallinn has explored the use of AI for decision-making in urban planning and transportation management. AI systems analyse data from traffic patterns, public transport use, and urban growth to help local governments make better, data-driven decisions that reflect citizens' needs (Heinonen et al., 2019). Tallinn's success is largely due to its robust digital infrastructure and a culture of public trust in AI systems, which have enhanced service delivery and promoted citizen participation in local governance.

2.4.6.2 Seoul, South Korea: AI in Urban Governance and Participation

Seoul, South Korea, is another exemplary case where AI has been successfully integrated into local government operations, particularly in the realm of citizen engagement and participation. Seoul's "Smart City" initiatives use AI to improve urban management and involve citizens in decision-making processes. For instance, the city's AI-powered Citizen Communication Platform allows residents to participate in government consultations and express their concerns through digital channels, which are then processed and analysed using AI tools to identify patterns and prioritize public concerns (Lee & Choi, 2020).

The city also implemented an AI-based predictive policing system that analyses crime data and forecasts criminal activities in certain neighbourhoods. This helps local police deploy resources more effectively and address safety concerns proactively. While AI has been instrumental in improving public service delivery and participation, Seoul's experience underscores the importance of public trust in AI technologies. For AI adoption to succeed in citizen engagement, governments must ensure transparency, inclusivity, and the mitigation of biases in algorithmic decision-making (Kim, 2021). Seoul's initiative also highlights the need for a comprehensive legal and ethical framework to govern AI use in public services.

2.4.6.3 Accra, Ghana: AI for Citizen Engagement and E-Government Services

Accra, the capital city of Ghana, has been actively working to improve citizen engagement and public service delivery through AI technologies. The local government has partnered with private tech companies to implement AI in e-government services and streamline communication between citizens and the government. Accra uses AI-powered chatbots and virtual assistants to handle citizen queries related to local services such as tax payments, business registration, and public health services. AI also helps in processing service requests such as road repairs and waste collection, ensuring more efficient response times. The adoption of AI in citizen engagement within local governments, such as Accra, can bring several significant benefits. It can speed up responses to citizen inquiries, enhancing the efficiency and accessibility of public services. AI-driven platforms can handle large volumes of inquiries in real time, providing immediate solutions to common problems. This can also result in a reduced administrative burden on government staff, as AI tools automate routine tasks, allowing public servants to focus on more complex issues. Furthermore, AI has the potential to improve citizen satisfaction with local government services by offering faster, more personalized, and convenient services that are accessible 24/7.

However, there are notable challenges in adopting AI for citizen engagement. Limited access to the internet or smartphones in certain population segments creates a significant barrier to digital participation, preventing some citizens from benefiting from AI-powered platforms. Additionally, there is often a low level of trust in AI systems and the digitalization of government services. Citizens may be sceptical about the accuracy and

fairness of AI tools, or they may fear privacy violations, contributing to resistance to AI adoption.

Despite these challenges, Accra is actively working on improving its digital infrastructure to overcome barriers such as low internet penetration. The city has plans to leverage AI in public health monitoring, education, and further e-government services. By expanding access and integrating AI into multiple sectors, the city aims to enhance its governance capabilities and improve citizen engagement in the future.

2.4.6.4 Kigali, Rwanda: AI in Health and Civic Engagement

Rwanda, often considered one of Africa's most progressive countries in terms of technology adoption, has made significant strides in integrating AI for sustainable urban development. Kigali, the capital city of Rwanda, has utilized AI in several innovative ways, particularly in healthcare and civic engagement. In the healthcare sector, AI-driven solutions are employed to analyse patient data, predict health trends, and optimize resource allocation in public health systems. AI tools help in identifying outbreaks of diseases such as malaria or cholera, enabling the government to respond proactively and effectively (Kamanzi, 2021).

Furthermore, Kigali has used AI to improve citizen engagement by integrating AI platforms in local governance processes. These platforms analyse citizens' feedback and complaints, allowing the local government to respond in a timely manner to public concerns. Kigali's focus on AI in governance demonstrates how African cities can leverage technology to enhance participatory democracy and improve service delivery,

especially when paired with governmental commitment to data-driven decision-making (Mugisha, 2021).

These case studies of AI adoption in local governments across the globe, including both developed and African cities, demonstrate the diverse ways AI can improve urban governance, enhance citizen engagement, and streamline public services. Cities like Tallinn and Seoul showcase how AI can transform urban management through effective integration into decision-making, service delivery, and citizen engagement. AI adoption in local governments across Africa is still in its early stages but is showing significant promise in addressing urban challenges and improving citizen engagement. As seen in case studies from Kigali and Accra, AI is enhancing various public services, but challenges related to infrastructure, data privacy, and public trust remain. Continued investment in digital infrastructure, training, and ethical AI frameworks will be critical to fully realizing the potential of AI in local governance in Africa.

2.5 Summary

The adoption of AI by the Mutare City Council could significantly enhance citizen engagement in policy processes by providing more efficient communication, personalized interactions, and data-driven decision-making. However, for AI adoption to succeed, several factors must be considered, including technological infrastructure, political will, capacity building, financial resources, and public trust. It is crucial that AI systems be designed in a way that is inclusive, transparent, and accountable to the citizens of Mutare. Exploring these areas will help paint a comprehensive picture of the city's readiness and highlight the steps needed for successful implementation.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter elucidates the methodology and methods that were adopted to address the research questions of the study. It describes and justifies the research design and outlines the population and defines the sample. A description of the research instruments that were be used to collect data is also provided. Data preparation and analysis procedures and ethics in research will also be discussed in this section. The chapter concludes with a summary.

3.2 The Research Design

The study follows a qualitative research design. Qualitative research allows for an in-depth exploration of AI adoption. More specifically, interviews and a focus group are expected to provide rich, contextual data that can help the researcher understand the specific needs, concerns and experiences of local authorities in AI adoption. In addition, qualitative design allows for an emergent design, where the research approach can be adapted based on findings and insights gathered during the study. Lastly, the design can shed more light on the culture of local authorities' values and norms that may impact the adoption and use of AI technologies.

3.3 Population and Sampling Techniques

According to Creswell and Creswell (2018) population is the total elements on which the researcher wants to make some inferences, while a sample is a subset of the population. Exploring the readiness of Zimbabwe's urban local authorities in adopting AI to improve

citizen engagement in policy processes involves several stakeholders. In this regard, the accessible population for this study will include a range of stakeholders. The rationale for selecting the diverse stakeholders is that these stakeholders are expected to share important insights into AI adoption in local authorities that addresses the research questions of the study. Given that some of the stakeholder groups within the population (for instance, citizens or residents under the city council's jurisdiction) have infinite populations, the research study will work with representatives of resident's association which can be determined without significant challenges. The population is, therefore, composed of key local government officials, technology experts directly involved in ICT, citizens through residents' associations, civil society organizations, and advocacy groups involved in governance and citizen participation as illustrated in Table 1.

Stakeholder group	**Population (conservative estimate)**
Local government officials' representatives	120
Technology expert representatives	35
Residents' association representatives	50
Civil society organisation representatives	15
Advocacy group representatives	20
Total	240

Table 3.1: Population distribution

Justification for the population distribution

The accessible population of the study is 240, as shown in Table 1 above. The distribution based on the varying levels of involvement and expertise required for each stakeholder group. The 120 local government officials only include persons with considerable knowledge of AI and processes in local governance. On the one hand, technology experts are identified based on their high-end knowledge of ICT. On the other hand, civil society organisations and advocacy groups were identified based on their involvement in social issues and service delivery. All in all, population distribution is expected to provide a wide coverage and diverse perspectives on the readiness of local authorities to adopt AI in policy processes.

Sampling method and Sample size

Considering the qualitative nature of the study, the overall sampling design will be purposive sampling. Given that the population distribution has distinct strata, purposive sampling was used to select participants from each stratum who are directly involved or have significant experience with the governance processes in Mutare, particularly those familiar with or knowledgeable about AI technologies or citizen engagement practices.

As mentioned above, key informants include local government officials, technology experts, residents' association representatives, civil society organisation representatives, and advocacy group representatives. These key informants are chosen for their diverse perspectives, expertise, as well as experiences, which will provide an in-depth understanding of the readiness of urban councils to adopt AI in policy processes. Their

insights are expected to help identify potential challenges, opportunities, and strategies for successful AI adoption.

Interview Sample

There is no consensus in qualitative research on sample size. However, Manson (2010) provides guidelines for sample sizes in qualitative research, and suggest 10 -20 interviews for small-scale studies, and 20 – 50 for medium-scale studies.

The sampling design entails purposive sampling. The sampling process is intended to locate participants who have knowledge and experience with AI and policy making in local authorities. What it means is that proportionate to the population in each stratum, participants were purposively selected. From the local government official stratum, three (3) department heads and one (1) councillor who understand the policymaking process and challenges faced by the city council were interviewed. On the other hand, three (3) technology experts with knowledge in AI, data analytics, and IT infrastructure who can provide insights on the technical feasibility were purposively selected from the technology expert representative's stratum. In addition, three (3) community leaders who can share citizen's concerns, needs, and expectations regarding AI-powered policy processes were purposively selected from the resident's association representative stratum for interviews. Three (3) representatives from civil society organisations and two (2) from advocacy groups will be purposively selected for interviews.

All in all, fifteen (15) key informants were physically interviewed in their preferred locations. The sampling design will allow the researcher to draw information from information rich participants as the thrust was not on achieving large numbers (Brinkmann

and Kvale, 2019) but on the depth and richness of the data obtained from the participants. Interviews (Hossein, 2015) will be used in this study because they enhance understanding of intricate phenomena (Saunders et al, 2009) such as AI and policymaking. They enabled the researcher to probe answers where the researcher wants the interviewee to clarify their responses. Kothari (2004) believes this unlocks new dimensions of the research phenomenon.

3.4 Data Collection Instruments

Data was collected through a combination of the following methods:

3.4.1 Semi Structured Interview Guide

In-depth interviews were conducted with key informants - local government officials, technology experts, and representatives from civil society organizations at their preferred locations. The interviews through Semi Structured Interview Guide did not only allow for the assessment of the readiness of the city council but provides a deep understanding of the challenges and opportunities related to AI adoption and citizen engagement. The use of in-depth interviews is imperative where interpretivist epistemologies are being applied as is the case in this study where it will be used to enhance the understanding of the meanings that the participants ascribed (Saunders et al, 2009) to AI and local governance. Saunders et al (2009) also believe that people in managerial positions prefer to be interviewed rather than complete a questionnaire which requires writing down their responses. The interviews give the researcher flexibility, allows the researcher to rephrase the question when it was misunderstood by the interviewee and allowed the researcher to assess the instrument after each interview.

3.4.2 Documentary Review

Documentary review is a way of collecting data by reviewing existing documents on educational equity in rural primary schools in Zimbabwe. The researcher reviewed circulars, committee reports, council resolutions, auditor general reports, standard operating procedure manuals, policies, periodicals, journal articles and books on citizen engagement and artificial intelligence. Documentary review substantiated what was collected via oral interviews. The advantages of documentary review are that it provided context and necessary background information since some of the documents are peer-reviewed and have stood the test of time. Notably is the validation that documentary reviews offer to augment from other data collection tools (Leedy & Ormrod, 2005). Nonetheless in certain instances there is need to be thorough and read between the lines and 'peak through the veil' and be cognizant of certain biases and prejudices that may be perpetuated due to social, economic and political circumstances Cohen, Manion & Morrison (2011),. Thus the awareness of the above may help explain patterns, behaviors and trends in as far as the study is concerned.

3.5 Data Collection Procedure

The data collection procedure for this study on the adoption of Artificial Intelligence (AI) in citizen engagement in the City of Mutare followed a systematic approach to ensure that comprehensive, reliable, and relevant data was gathered to address the research objectives. The procedure involved multiple stages, each focusing on specific methods of data collection, ensuring diverse perspectives are captured from the stakeholders involved in

governance, technology, and citizen engagement. Before the data collection process began, the following preparatory steps were undertaken:

- Ethical Approval: The study was submitted for review and approval by an ethical review board (AUREC), ensuring that all research practices comply with ethical guidelines and standards.
- Pilot Study: A pilot study was conducted with a small group of participants from Mutare to test the interview guides. This helps identify any ambiguities, refine the questions, and ensure the tools are appropriate for the study context.
- Recruitment of Participants: Participants were selected through purposive sampling, which involves selecting individuals who have direct experience or expertise in the subject matter, particularly those involved in governance processes, ICT implementation, and citizen engagement. Participants were approached through email or phone, with consent forms provided in advance.
- Data Collection Timeline: The data collection was carried out over a period of two months.

To ensure the integrity and security of the data collected, the following measures were taken.

- All recorded interviews, were stored securely in password-protected digital files.
- Confidentiality: Only the researcher and authorized team members had access to the data. Participant identities remained confidential using pseudonyms in reports and analysis.

- Transcription: Audio recordings were transcribed verbatim to capture all details for accurate analysis.
- Data retention: The data were retained for the duration of the research project and destroyed after the completion of the study in compliance with ethical guidelines.
- Analysis and Organization of Data: The analysis and organization of data are crucial to derive meaningful insights from the data collected through interviews, document analysis, and surveys.

3.6 Data Presentation and Analysis Methods

This section outlines the approach for data analysis and organization, ensuring that the results are accurate, valid, and meaningful to the research objectives.

3.6.1 Thematic Analysis

Before commencing the analysis, the collected data was prepared for processing through transcription and data cleaning. All audio recordings from semi-structured interviews were transcribed verbatim to ensure accuracy in capturing participants' responses. Interviews and transcripts were reviewed for any inconsistencies or errors. Any misinterpretations were clarified, and data were cleaned, removing irrelevant or incomplete responses. In essence data from semi-structured interviews were organized into thematic codes. (Kiger & Varpio, 2020) assert that thematic analysis is an appropriate method of analysis for seeking to understand experiences, thoughts, or behaviors across a data set. This process involved breaking down the qualitative data into manageable units of meaning and categorizing them based on recurring themes or ideas. For instance,

responses related to "challenges in AI adoption," "citizen engagement," and "perceived benefits of AI" with each form distinct categories. A coding framework was developed before analysis began to guide the categorization of responses, ensuring consistency across all data sets.

3.6.2 Content Analysis

From the documentary review process the researcher went through committee minutes, full council resolutions, notices, statutes, journals, newspapers, handbooks and standard operating procedures. The aforementioned process allowed for identifying, analysing, and reporting patterns within the data. Initial codes were assigned to meaningful segments of the data .Codes were grouped into themes related to the research questions (e.g., AI adoption challenges, citizen engagement strategies, digital literacy, etc.). The identified themes were reviewed and refined to ensure they align with the research objectives. Once refined, the researcher defined the key themes and gave them descriptive names. The secondary data recorded was brought together, organized and analyzed according to the themes identified in the research question and as modeled by the theory underpinning the study, the Technology Acceptance Model. The final themes were organized into a coherent report, with supporting evidence from the secondary data

3.7 Ethical Consideration

The following ethical considerations guided the data collection process:

3.7.1 Informed Consent:

Participants were provided with a clear explanation of the study's purpose, procedures, potential risks, and benefits. Written consent was obtained from all participants before any data is collected.

3.7.2 Voluntary Participation:

Participants were assured that participation in the study was entirely voluntary, and participants can withdraw at any point without any consequence.

3.7.3 Confidentiality:

All data collected from participants were treated with the utmost confidentiality, with identities anonymized in reports and publications.

3.7.4 Right to Privacy:

The study respected participants' privacy, ensuring that sensitive information was not disclosed without consent.

3.7.5 Integrity of Reporting:

The researcher reported the findings accurately, without manipulation, and ensured representation of diverse viewpoints, especially where there may be contrasting opinions on the use of AI in citizen engagement.

3.8 Summary

This research methodology provides a well-rounded approach to assessing the readiness of Mutare City Council in adopting AI for citizen engagement in policy processes. The qualitative collection methods, the study will offer a nuanced understanding of the technological, institutional, and societal factors that influence AI adoption in local governance. The findings will inform future AI initiatives in Mutare and potentially guide other urban local authorities in Zimbabwe and beyond

CHAPTER 4: DATA ANALYSIS, PRESENTATION, AND INTERPRETATION

4.1 Introduction

This chapter focuses on presentation of results, analysis and discussion of study findings. Data were mainly qualitative obtained through interviews of key informants, hence were presented in excerpts from participants. Thematic analysis was utilised for analysis of obtained data where themes and data was grouped and presented in themes and subthemes which emerged from data.

4.2 Data Presentation and Analysis

4.2.1 Response Rate

This section presents the response rate for interviews and focus group discussions which were conducted with MCC officials and various stakeholders.

Table 4.2.1: Response Rate

Category	Scheduled	Successful	Response Rate
Interviews	15	12	80%

12 out of the 15 scheduled interviews with the Councillor/Chairperson, Department Heads, Technology Experts, Representatives and Advocacy groups were successful giving a response rate of 80%. The generally high response rate indicates high interest among participants on the topical issue of AI integration in policy processes. Also, through

making appointment and reminder for the scheduled meetings ensured a high turn up of participants.

4.2.2 Thematic Analysis

4.2.3 Preparedness of the City of Mutare for adopting AI-driven tools to enhance citizen engagement in policy processes.

The study sought to examine the preparedness of City of Mutare towards adoption of AI technology to enhance policy processes. Participants generally agree that the organisational is not fully prepared for robust implementation of AI driven solution to citizen engagement/policy processes. However, progress towards digitalisation of citizen engagement processes was being observed. Some of the statements below confirm the findings;

Participant 4 had to say "*the adoption of AI requires full commitment by management and adequate funding for acquisition of hardware and software. The budget may not permit full scale adoption of AI at the moment because of other pressing service delivery issues"*

Another participant said, *"Whilst we believe, AI would promote flawless interaction of the council with residents through streamlining citizen engagement process which is key, the ability of the council to fully adopt it at this point in time is doubtful considering budget constrains"*

Participant 12 said; *"Navigating AI driven platforms requires skills which many workers, let alone residence, do not have. So implementing the system without proper training on how it is utilised would be a waste of resources"*

Participant 3 had to say; "*Due to the factors attributed to broader economic situation of the country, residents may not afford data or internet services for them to get connected 24/7. If one fails to get connected, it means they would miss important updates shared online and they won't be able to provide feedback".*

Participant 5, *stated that, "I think management is satisfied in the traditional way of doing their things, online discussions on issues of policies and budgets are still being done through face to face interactions. Without leadership commitment towards change by streamlining such processes requires through AI solutions such as chat boards would be difficult to embrace".*

The results shows that the council is not prepared enough to roll out robust implementation of AI for engaging citizens in policy processes. Whilst, the council is moving towards digitalisation of the citizen engagement processes which are key in policy through use of social media to engage with citizens, full adoption of AI solutions remains a pipedream until factors such as internet connectivity, budget allocation are addressed and management commitment is fostered.

4.2.4 Appropriateness of existing citizen engagement strategies used by local authorities in policy processes.

The study has identified a number of citizen engagement methods currently being utilised by City of Mutare. Whilst participants perceive that most these methods were found to be effective in promoting citizen engagement, some were sceptical of their full utilisation.

4.2.4.1 Social Media

Results show that social media platforms such as WhatsApp, Facebook are utilised to accommodate citizen participation. Through these methods community members are included without discrimination for the platforms know no boundaries giving every resident to participate as long as one has internet access and an electronic device.

One of the participants, a community member had to say; "*we have WhatsApp groups where council officials, including the councillor keeps us up to date with announcements from the council if there are scheduled meetings with resident or programs where residents should contribute*"

Another participant indicated that, *"WhatsApp platform is considered efficient way of engaging citizens because it is cheap and many residents can afford"*

One council official indicated that, *"we have a Facebook page and Twitter where we give update to our stakeholders. Through the same platforms, we also obtain stakeholders' input and feedback which is helpful in policy review and reforms process"*

4.2.4.2 Company Website

The study revealed the establishment of a public website to disseminate council information online is another remarkable development within the MCC. The MCC runs a website that is meant to improve communication between the local authority and the citizens. Participants acknowledged existence of that interactive platform, where opportunities to give feedback or comments is provided. However, some complain over management of the website indicating lack of up to date current information.

One of the participants, a resident, states that, *"we acknowledge updates we receive through the official website. It allows inclusive citizen participation, where everyone with internet connectivity and smartphone can access the website"*

Participant 7 said; *"The website is often not well managed and updated, as we often see that it lacks current information"*

4.2.4.3 AI powered Online Portals

The results show the introduction of AI powered online services such as SMS hotline and emails where stakeholders can communicate through. These platforms could be used for general inquiries as well any day and anytime.

One of the council officials indicated that,

"We acknowledge that online services are available to get out stakeholders engage with us 24/7. Through the email or through SMS hotline, communication with stakeholders has improved".

Another participant said that; *"Through SMS hotline, the council has experienced improved communication between the council and its residents where constructive feedback is received. I believe through this platform participation of citizens creates a great sense of ownership of decisions made by council and services rendered"*

The findings show that City of Mutare uses various methods to engage with citizens in policy processes including, physical meetings, use of social media platforms like WhatsApp, Facebook Page, Twitter and official company website, where they interact with citizens and stakeholders. Through these platforms, updates and feedback would be shared. However, the digital platforms are not often updated with current information. Adoption of AI driven tools such as SMS hotline, emails were found to be new developments which could improve the citizen engagement through streamlined processes.

4.2.5 Challenges faced by the city of Mutare in adopting AI in citizen engagement for policy processes.

The study showed that local authorities face challenges in implementation of AI driven technology for citizen engagement. Some of the challenges expressed by participants budget constrains includes internet connectivity challenge and poor technological infrastructure.

4.2.5.1 Digital divide

Results show that AI creates inequality in terms of access to the services. Those who can afford gadgets and data connection will have access leaving out those without access to those resources. Some of the statements below conforms the findings; *"some of residence may not have money to buy data to stay connected to the online systems and to participate through those platforms. It means that utilise those with access to resources will have the opportunity to utilise the AI powered systems"* Participant 8

Another participant stressed that; *"the adoption of AI discriminates those who cannot utilise those systems due to various factors such as lack of connectivity and lack of skills to utilise it"*

4.2.5.2 Internet Connectivity Challenge

Results indicate that AI systems require flawless internet connectivity, which is generally a challenge in Zimbabwe. Adoption of AI becomes challenging at City of Mutare and the wider community where intermittent internet glitches are often experienced, as expressed by some participants.

One of the participants had to say; *"with network and internet connectivity challenge, robust adoption AI becomes a challenge"*

Another participant expressed that, *'without proper connectivity full adoption of AI for citizen participation endevours remains a pipedream"*

4.2.5.3 Budget Constrains

Some participants acknowledged that AI can be more affordable, but still comes down to money. Municipal budgets are tighter than they ever have been, making investments into AI driven solutions for citizen participation challenging. One of the Council Officials expressed that, *"adoption of AI infrastructure should be budgeted for and approved, the challenge we have now is of budget constraints, making it challenging to adopt AI with the pace we might want"*

4.2.5.4 Poor technological infrastructure

The other challenge mentioned by many participants which emerged as a sub-theme is poor technical infrastructure to sustain AI solutions. It has been noted that lack of appropriate technical infrastructure such as computational power, hardware and software which local authorities sometimes find it difficult to have. One of the participants indicated that; "*the systems which are available are generally old and not up to date, making them difficult to sustain latest AI technology"*

4.2.5.5 Public Trust and Resistance to Change

Findings reveal that, participants were of the view that, the implementation of AI in local government often faces resistance from both public officials and citizens. Additionally, constituents will be wary of AI systems due to concerns about surveillance, loss of privacy, or a lack of transparency in decision-making. One of the participants indicated that, *"there is inherent resistance to adoption of new things due to factors such as fear of job losses, fear of being incompetent to get along with the new systems, uncertainty over*

the effectiveness of the new proposed AI systems. All these causes resistance to change as people may be satisfied with the status quo and sceptical about the new development"

As revealed by the findings above, the key challenges include the digital divide, lack of updated technological infrastructure, power cuts, budget constraints and network connectivity. These factors are derailing robust implementation of AI technology in citizen engagement processes.

4.2.5.6 Lack of Knowledge (Skills Gap)

Results indicated lack of in-house expertise to manage and implement these complex AI driven technologies effectively, leading to a reliance on external vendors who costs more and leaves the organisation with limited control over the systems. *"One of the key challenges is of knowledge gap concerning adoption of latest AI technology. This means we have to rely on costly external vendors and we subsequently lose control over the systems"*

4.2.6 AI-frameworks` that can be adopted by the City of Mutare in policy processes.

The study highlights the potential of online portals, mobile apps, and AI powered social media platforms to improve engagement and accountability, emphasizing the crucial role of policymakers in fostering digital literacy, ensuring equitable access, and promoting transparency. The study shows that this can be fostered through implementation of supportive policies, training staff and citizens through their citizen associations on how to use the newly developed system, so that they would cascade the information down to their

constituencies. Some suggested that change management should be fostered to ensure that everyone is contented and supportive to the new developments.

One of the participants indicated that; *"The council should adopt digital tools, AI and automation to streamline processes and enhance citizen engagement. AI-powered chatbots provides residents with 24/7 access to information and services, answering questions and assisting with requests in real time.*

Another participant expressed that; *"A supportive policy framework should guide the implementation of AI solutions for citizen engagement. Without supportive policies, smooth implementation is difficult"*

"There is need for training of users of the systems including staff members and residents representatives. This would promote flawless adoption of the system and minimise resistance to adoption of new AI solutions"

4.3 Discussion and Interpretation

4.3.1 Preparedness

The findings of the study indicate that whilst notable progress is being realised in terms of digitalisation of citizen engagement process through partnerships with other organisations in implementation of new systems, the council is not ready for robust

implementation of AI solutions to citizen engagement. The limited integration of AI is attributed to knowledge gap amongst users of the systems, limited funding for the required latest hardware and software. Literature confirms that Local authorities must have access to reliable and high-speed internet, data storage capabilities, and modern computing resources to support AI applications (Schrijvers, 2023). Without sufficient infrastructure, the functionality of AI tools particularly those that rely on cloud computing, real-time data processing, or machine learning models will be significantly limited (Rahwan et al. 2019). Thus lack of supportive infrastructure, robust internet connectivity characterise most local authorities including MCC.

4.3.2 Citizen engagement practices in place

The findings further reveal that MCC is utilising physical meetings, social media platforms like WhatsApp, Facebook page, Twitter, Online portals such as SMS hotline and official website to interact with citizens. The study noted that the MCC website has a provision for contact details of persons that can be contacted when one wants to tender a complaint about the local authority. This shows that the council is in the right direction towards effective utilisation of technology where citizens can effectively participate in policy processes. However, concern which was raised by participants of failing to make updates in time mirrors what has been observed elsewhere. For instance, a study focusing at MCC revealed whilst the website was introduced as a strategy to ensure that there is regular two way communication between the council and the residents, updates are not often given. This means concern was on the management of those available systems, where without effective management, it would be good as they are not available.

Furthermore, findings show that whilst MCC is digitalising its processes, it still lags behind in terms of adoption of latest, more efficient AI driven tools. AI-driven platforms, such as mobile apps and online portals cam allowing citizens to engage in policy discussions, submit feedback, or participate in e-consultations from anywhere at any time (Chirisa, 2012). Ribeiro (2016) asserts that some organizations use chatbots to manage enormous amounts of citizen communication, handle complex policies and legislation, and improve communication between citizens and governments. Also the use of Natural language processing (NLP), the use of a machine to understand, interpret, and generate human language (Srinivasa-Desikan, 2018), could be critical in citizen engagement processes as such measures would help in interpreting and providing effective feedback to citizens. Thus, literature reveals more robust AI driven tools in place which is beyond what is being utilised at MCC.

4.3.3 Challenges

There is overwhelming evidence from the study to conclude that the council faces challenges in implementation of AI driven technology. Key challenges include the digital divide, lack of updated technological infrastructure, lack of knowledge, resistance to change, budget constraints and network connectivity challenge. These factors are derailing robust implementation of AI technology in citizen engagement processes. Many local governments still rely on outdated legacy systems, which can be incompatible with modern AI solutions (Harrison et al., 2021). Government employees will be concerned about losing their jobs or a change to their role(s), which will create further resistance to

AI (Gartner, 2024). Integrating AI into existing systems often requires a major overhaul of infrastructure, which usually is costly and time-consuming. The issue of lack of knowledge has been supported by Gwakwara (2024) who attests that, especially in developing regions, face challenges related to low levels of digital literacy, which can hinder both the effective use of AI systems by government employees and citizen participation in digital governance platforms. The issue of resistance to change has also been supported by Chakunda, (2024) who had to say, in many African local governments, there may be resistance from political leaders who are hesitant to embrace new technologies due to fear of disruption or a lack of understanding of AI's benefits. Thus, the findings of this study are in tandem with the available literature.

4.3.4 Strategies

The study further concludes that effective adoption of Ai driven solution for citizen engagement in policy processes, local authorities should create enabling environment. The implementation of AI should be backed by supportive organisational policies. To address the knowledge gap, training initiatives on how to navigate the digital spaces would help facilitate adoption of AI. The governments must work to educate citizens and employees about the benefits and limitations of AI and foster a collaborative environment which encourages innovation while addressing public concerns. Public awareness campaigns and training workshops can be essential to ensuring that both government employees and citizens understand how to effectively interact with AI technologies (Shilongo et al., 2024). As revealed in the findings and confirmed by literature that local governments must prioritize upgrading infrastructure to ensure they can support the technological demands

of AI systems (Chigona 2021). Also, (Chigona, 2021) avers that bbuilding trust in AI technologies requires clear communication, education, public engagement, and ensuring AI systems are designed with ethical principles in mind. Training initiatives on how to navigate the digital spaces would help facilitate adoption of AI through enhancing literacy.

The study revealed the need to implement supportive policies which guides the implementation of AI solutions for citizen engagement. Literature also confirms the findings that the implementation of AI should be backed by supportive organisational policies. Chirisa (2018) indicated that there must be clear regulations in place to protect citizens' privacy and to ensure that data is used responsibly This involves creating policies that outline how data will be collected, stored, processed, and shared, as well as ensuring compliance with global data protection standards such as the GDPR (General Data Protection Regulation) in the European Union (Bertot et al., 2010).

4.4 Summary

This chapter was focused on presentation and analysis of results and discussion of findings. Findings were discussed in relation to the theoretical framework and to empirical studies.

CHAPTER 5 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter focuses on presenting the summary of the study, indicating the major sections covered and a summary of major study findings. Conclusions reached will are also presented in this section based on the research objectives. Policy recommendations and managerial recommendations in line with the findings and conclusions reached.

5.2 Discussion

This study was arranged into five chapters. Chapter One, is regarded as 'the problem and its setting'. This is the chapter where the research is introduced consisting the introduction, background of the study, the statement of the problem, the objectives of the study, the major research questions and sub questions, the assumptions of the study, significance of the study, scope/delimitations of the study, limitations of the study, definitions of terms, organization of the study and chapter summary.

The following chapter consists of 'Literature Review'. This chapter underlined various literature related to the study. This is where the theoretical framework, the conceptual framework and model were established. Also literature related to the study was discussed. The literature was drawn from books, journals and academic articles accessed from the library and the internet.

Chapter three outlined the research methodology. An introduction highlighted the concepts which would be covered in the chapter. The chapter consists of the research

approach, research philosophy, research design, population, sample and sampling procedure, data collection instruments, ethical considerations, data collection procedure, data presentation and analysis procedure, validity and reliability issues and chapter summary.

Chapter four consists of the research presentation and analysis and discussion. Data presentation and analysis was done using the thematic approach. Research findings were also discussed in relation to theory and empirical studies.

Chapter five constitutes the summary, conclusion and recommendations. The chapter was introduced first, followed by the research summary. This involves the summary of the whole research. Conclusions were also given in relation to the research objectives. There were also recommendations to various stakeholders.

5.3 Conclusions

The study sought to find out the preparedness of City of Mutare towards adoption of AI in policy processes. The study concludes that whilst notable process is being observed in digitalisation of policy processes through adoption of SMS hotline platform, social media and we presence, the institution is still lagging in adoption of AI. The limited integration of AI is attributed to knowledge gap amongst users of the systems, limited funding for the required latest hardware and software.

The study also concludes that currently the City of Mutare uses various methods to engage with citizens in policy processes including, physical meetings, use of social media platforms like WhatsApp, Facebook page, company website, where they interact with citizens and stakeholders. Through these platforms the council would interact with

stakeholders, giving updates and receiving feedback. However, the digital platforms are not often updated with current information. Adoption of AI driven tools such as SMS hotline were found to be new developments which has improved citizen engagement and inclusivity through streamlined processes.

There is overwhelming evidence from the study to conclude that the council faces challenges in implementation of AI driven technology. Key challenges include the digital divide, lack of updated technological infrastructure, power cuts, budget constraints and network connectivity. These factors are derailing robust implementation of AI technology in citizen engagement processes.

The study further concludes that effective adoption of Ai driven solution for citizen engagement in policy processes, local authorities should create enabling environment. The implementation of AI should be backed by a supportive policy framework, regular training to capacitate users and allocating more funding for AI initiatives

5.4 Implications

The study has policy and managerial implications. Given that adoption of AI is considered critical for fostering inclusive and effective citizen engagement, local authorities ought to prioritise its implementation. To this end, policy frameworks which ensure robust implementation, through guiding the funding, capacity building, monitoring and evaluation of these processes should be implemented. Management should also foster commitment towards implementation of such processes, beginning from the top to the

bottom. Staff and stakeholders should be informed of the relevance and effectiveness of the new developments for them to enthusiastically embrace the change.

5.5 Recommendations

- As part of long-term effort to promote adoption of AI in policy processes, the government through the established local authorities should allocate more funding for AI adoption initiatives. This means the policy framework concerning funding should allow more budgets for AI adoption which would revitalise policy processes.
- The Municipality should conduct regular assessments to identify latest AI technology on disposal so that they keep up to date with the changes in technology. Adoption of latest AI technology would ensure efficient policy processes and effective citizen engagement where updates and feedback from stakeholders is received.
- The municipality leadership should support implementation of AI technology for citizen engagement in policy processes through training users of the system and citizens representatives for capacity building. It has been noted that there is a knowledge gap on how to navigate through AI platforms which prompts training through workshops.
- MCC officials should seek for partnerships with other organisations for adoption of AI powers software and tools. Since integrating technology has cost implications and requires expert knowledge, it is recommended that partnerships be sought through MoUs.

5.6 Suggestions for Further research

The study adopted a qualitative study, focusing on MCC; further study should adopt other methodologies and may focus on other local authorities to confirm the findings of this study.

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APPENDICES

Appendix 1: Consent To Participate

A Research Dissertation carried out in Partial Fulfillment of The Requirements for the Degree of Master's Degree in Public Policy and Governance

Dear Sir / Madam

My name is **Thabani Ezra Nsingo.** I am a final year master's student at Africa University. As part of the fulfillment of the partial requirements to the completion of the Master's degree, I am required to undertake research. The title of my research is,

"Exploring the Readiness of Urban Local Authorities in Adopting Artificial Intelligence in Policy Processes: Evidence Mutare City Council

You are kindly requested to willingly participate in this study. The data gathered will be treated in strict confidence and a summary of the results will be available on request. All the data gathered in the research shall be used for academic purposes only.

Your participation in this project is voluntary. You may refuse to participate or withdraw from the project at any time with no negative consequence.

Thank you

_____

Thabani Ezra Nsingo

Cellphone: 0712 244 287/ 0773 598 078 Email: nsingot@africau.edu

CONSENT FORM

"I have read the foregoing information about this study, or it has been read to me. An opportunity to ask questions and discuss about the study was given to me. All my questions were responded to, and I am satisfied. All information about this study has been made available to me. I am fully aware that I can withdraw from this study at any time without giving reasons and that my withdrawal will not have any negative repercussions. I am fully aware that my data will remain anonymous and confidential unless stated otherwise. I consent voluntarily to be a participant in this study". To show that you have agreed to take part in this study or otherwise, you are required to tick the appropriate checkbox in the introductory section below:

☐ Agree ☐ Disagree

Authorisation:

If you have decided to participate in this study please sign this form in the space provide below as an indication that you have read and understood the information provided above and have agreed to participate.

---------- ----------

Name of Research Participant (please print) Date

Signature of Research Participant or legally authorised representative

Appendix 2: Interview Guide

Objective 1: To identify the specific gaps in citizen engagement in policy processes in the City of Mutare that necessitates the adoption of AI-driven solutions.

1. How is citizen engagement in policy processes being currently done at City of Mutare?
2. What gaps in citizen engagement in policy processes may necessitate the adoption AI-driven solutions at City of Mutare?

Objective 2: To examine factors and evaluate the preparedness of the City of Mutare for adopting AI-driven tools to enhance citizen engagement in policy processes.

1. How prepared is the City of Mutare for adopting AI-driven tools to enhance citizen engagement in policy processes?
2. Comment on the adequacy of resources (e.g., hardware, software, internet connectivity) for supporting AI-driven citizen engagement in policy processes?
3. In your opinion, how supportive are current policies and regulations at City of Mutare to adoption of AI in policy processes.
4. How committed is management and policy-makers towards adoption of AI in policy processes. What are the main factors that influence the City of Mutare's readiness to adopt AI for citizen engagement in policy processes?

Objective 3: To recommend strategies for effective adoption of AI-driven citizen engagement tools at City of Mutare?

1. In your view, how would the integration of AI enhance citizen engagement in the policy processes at City of Mutare?
2. What strategies do you recommend for the adoption of AI-driven citizen engagement tools?

Appendix 3: AUREC Approval

AFRICA UNIVERSITY
"Investing in Africa's future"
AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE (AUREC)

P.O. Box 1320 Mutare, Zimbabwe, Off Nyanga Road, Old Mutare-Tel (+263-20) 60075/60026/61611 Fax: (+263 20) 61785 Website: www.africau.edu

Ref: AU4021/25

14 October, 2025

THABANI EZRA NSINGO
C/O Africa University
Box 1320
MUTARE

RE: **EXPLORING THE READINESS OF URBAN LOCAL AUTHORITIES IN ADOPTING ARTIFICIAL INTELLIGENCE IN POLICY PROCESSES: EVIDENCE FROM MUTARE CITY COUNCIL**

Thank you for submitting the above-titled proposal to the Africa University Research Ethics Committee for review. Please be advised that AUREC has reviewed and approved your application to conduct the above research.

The approval is based on the following.

a) Research proposal

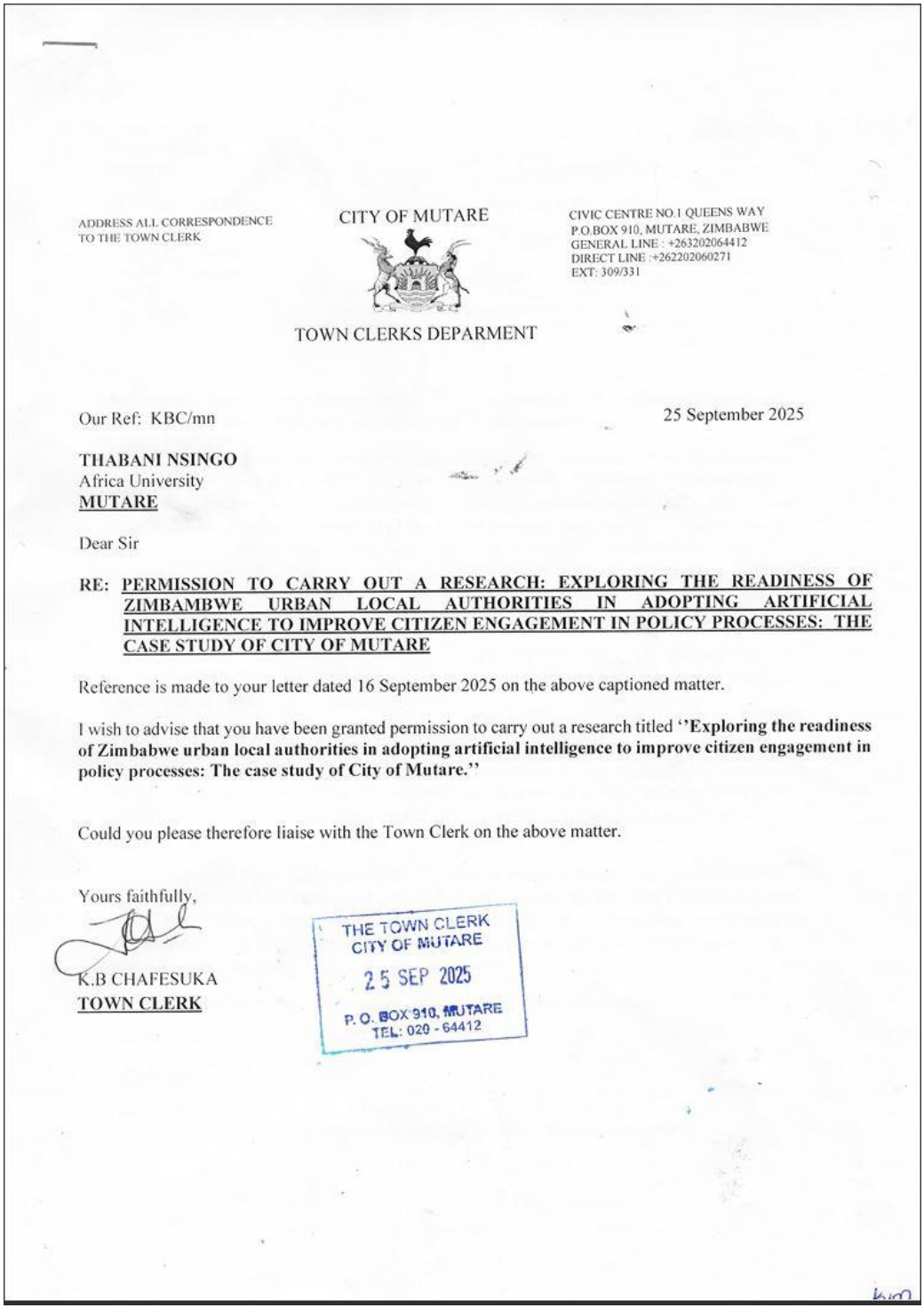
- **APPROVAL NUMBER** AUREC 4021/25
  This number should be used on all correspondence, consent forms, and appropriate documents
- **AUREC MEETING DATE** NA
- **APPROVAL DATE** October 14, 2025
- **EXPIRATION DATE** October 14, 2026
- **TYPE OF MEETING**: Expedited
  After the expiration date, this research may only continue upon renewal. A progress report on a standard AUREC form should be submitted a month before the expiration date for renewal purposes.
- **SERIOUS ADVERSE EVENTS** All serious problems concerning subject safety must be reported to AUREC within 3 working days on the standard AUREC form.
- **MODIFICATIONS** Prior AUREC approval is required before implementing any changes in the proposal (including changes in the consent documents)
- **TERMINATION OF STUDY** Upon termination of the study a report has to be submitted to AUREC.

AFRICA UNIVERSITY
RESEARCH ETHICS COMMITTEE (AUREC)
APPROVED
P.O. BOX 1320, MUTARE, ZIMBABWE

Yours Faithfully

MARY CHINZOU
FOR CHAIRPERSON
AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE

Appendix 4: MUTARE CITY COUNCIL CONSENT



ADDRESS ALL CORRESPONDENCE
TO THE TOWN CLERK

CITY OF MUTARE

TOWN CLERKS DEPARMENT

CIVIC CENTRE NO.1 QUEENS WAY
P.O.BOX 910, MUTARE, ZIMBABWE
GENERAL LINE : +263202064412
DIRECT LINE :+262202060271
EXT: 309/331

Our Ref: KBC/mn

25 September 2025

THABANI NSINGO
Africa University
MUTARE

Dear Sir

RE: **PERMISSION TO CARRY OUT A RESEARCH: EXPLORING THE READINESS OF ZIMBAMBWE URBAN LOCAL AUTHORITIES IN ADOPTING ARTIFICIAL INTELLIGENCE TO IMPROVE CITIZEN ENGAGEMENT IN POLICY PROCESSES: THE CASE STUDY OF CITY OF MUTARE**

Reference is made to your letter dated 16 September 2025 on the above captioned matter.

I wish to advise that you have been granted permission to carry out a research titled **''Exploring the readiness of Zimbabwe urban local authorities in adopting artificial intelligence to improve citizen engagement in policy processes: The case study of City of Mutare.''**

Could you please therefore liaise with the Town Clerk on the above matter.

Yours faithfully,

K.B CHAFESUKA
TOWN CLERK

THE TOWN CLERK
CITY OF MUTARE
25 SEP 2025
P. O. BOX 910, MUTARE
TEL: 020 - 64412