

BINDURA UNIVERSITY OF SCIENCE EDUCATION

A WORKING MODEL TOWARDS IMPROVED E-GOVERNANCE IN LOCAL AUTHORITY: A CASE OF RUWA LOCAL BOARD

BY

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APPROVAL FORM

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DECLARATION

I, **PEACE MASHANGU**, do hereby declare that this dissertation is a result of my own investigation and research, except to the extent indicated in the acknowledgments, bibliography, references, and comments included in the body of the report, and that it has not been submitted in part or in full for any other degree to any other university.

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…… ……..

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DEDICATION

This dissertation is dedicated to my family, whose encouragement made this journey possible, and to public servants working to improve local governance for the benefit of citizens.

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ABSTRACT

Ruwa Local Board (RLB) in Zimbabwe provides the setting for this inquiry into municipal e-governance and its link to service delivery. Although Vision 2030 and National Development Strategy 1 (NDS1) promote digital public services, many councils still operate through disconnected systems. The study therefore designs and tests a Digital Governance Adoption Framework (DGAF) suited to authorities with partial digitisation and constrained resources. Guided by pragmatism, the researcher employed a mixed-methods embedded case study. Evidence came from fifty usable questionnaire returns (91% response rate), eight managerial interviews, and council documents. Nine Likert-scaled constructs were processed in SPSS Version 27 (descriptives, Cronbach's alpha, correlation, and regression); interview transcripts were analysed thematically. Mean scores were favourable for adoption (4.24) and service delivery efficiency (4.30) but weakest for ICT infrastructure (3.88). Adoption correlated strongly with efficiency ($r = 0.782$, $p < 0.01$) and explained 61.1% of variance ($R^2 = 0.611$). Interviews underscored connectivity, training, and change-management needs. The thesis argues that hardware, skilled staff, joined-up systems, and accountable leadership, not software alone, are needed for sustainable reform, and presents DGAF as a five-phase iterative roadmap for councils in comparable contexts.

Keywords: E-governance; Local authority; Service delivery; Digital governance; Ruwa Local Board; ICT adoption; Mixed methods; Zimbabwe; Digital Governance Adoption Framework (DGAF); Public sector

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LIST OF ACRONYMS

BUSE: Bindura University of Science Education

DGAF: Digital Governance Adoption Framework

DOI: Diffusion of Innovation

EMB: Executive Master of Business Leadership

EGA:E-Governance Adoption

GSB: Graduate School of Business

ICT: Information and Communication Technology

NDS1:National Development Strategy 1

RLB: Ruwa Local Board

SDE: Service Delivery Efficiency

SI: System Integration

SPSS: Statistical Package for the Social Sciences

TAM: Technology Acceptance Model

UA: User Acceptance

UNDP: United Nations Development Programme

CHAPTER 1: INTRODUCTION

1.1 Background of the Study

Globally, governments have shifted from paper-based administration toward digital public services that process billing, licensing, records, and citizen queries at scale. The United Nations E-Government Survey 2024 treats digital government as a core instrument of public-sector reform, yet it also shows that local authorities still lag national portals on the Local Online Service Index (United Nations, 2024). The World Bank GovTech Maturity Index 2025 update likewise finds that many countries now have digital-government strategies and selected online services, while shared infrastructure, interoperability, and digital skills remain weak, particularly in Sub-Saharan Africa (World Bank, 2025). In this study, e-governance is understood as the use of ICT not merely to put forms online, but to change how councils account to residents and deliver services (Heeks, 2006).

At continental level, the gap between network coverage and meaningful use remains wide. The International Telecommunication Union estimated that only 38% of Africa's population used the Internet in 2024, compared with a global average of 68% (International Telecommunication Union, 2024). Unreliable electricity, expensive data, and thin technical establishments continue to shape what African municipalities can digitise (Ndou, 2004; Heeks, 2006). Revenue and payment modules typically appear first, while back-office records and cross-department data sharing stay manual. Any working model for a Zimbabwean council must therefore start from this constrained African infrastructure and skills setting, not from an assumption of always-on connectivity.

Zimbabwe has placed digital government inside Vision 2030 and National Development Strategy 1 (NDS1), which call for improved public-service delivery, ICT skills, and government connectivity (Government of Zimbabwe, 2020, 2021). The 2024 United Nations assessment nevertheless placed Zimbabwe 149th of 193 countries on the E-Government Development Index, with an EGDI of 0.4481 (middle group), and Harare's local online-service score remained low (United Nations, 2024). Load-shedding, limited ICT posts, and procurement of stand-alone packages continue to constrain urban councils (Chigwata, 2016). Digitisation often starts with

billing, while registries, customer desks, and internal approvals remain paper-heavy. Policy ambition at national level has therefore moved faster than the institutional capacity of many local authorities to integrate systems and retrain staff.

Ruwa Local Board (RLB) is a fast-growing peri-urban authority in Mashonaland East. It provides water, refuse collection, licensing, and rates billing to a population that has expanded with Harare's overflow. The Board has introduced electronic billing and licensing, and mobile-money payment has reduced some cash-handling delays. Even so, customer-service queries, file retrieval in the registry, and hand-overs between finance, engineering, and administration still mix paper files with screen-based records. Staff in one department frequently cannot see a resident's record held in another. It is this incomplete, uneven digitisation—not the absence of any system—that frames the present study and the working model (DGAF) developed in later chapters.

1.2 Statement of the Research Problem

The practical problem that this dissertation seeks to solve is not that Ruwa Local Board has no digital tools. Billing and licensing already run on electronic platforms. The problem is that these tools have not been assembled into a single, managed way of working. A resident who pays rates electronically may still queue at the customer desk because the query log is not linked to the finance record. A licensing file may sit in a cabinet while the payment appears on a computer in another office. Departments inherit or procure separate packages and then struggle to share data. Supervisors therefore cannot tell, from one source, whether digitisation is actually shortening turnaround time or only shifting the backlog from one counter to another.

National policy assumes that purchasing software will produce the service improvements set out in Vision 2030 and NDS1. At RLB that assumption has not held. Hardware, connectivity, staff confidence, change management, and integration have not been sequenced. Without a working model that tells management what to put in place first, the Board is likely to keep adding modules on top of weak infrastructure and mixed paper-digital routines. This study therefore specifies that problem in one municipal setting and develops the Digital Governance Adoption Framework (DGAF) as a practical response: a phased guide that links readiness, infrastructure, skills, system integration, and service outcomes, instead of treating software procurement as the reform itself.

1.3 Research Objectives

Main Objective

- To develop and empirically validate a working model for improving e-governance adoption and service delivery in local authorities.

Specific Objectives

1. To examine existing e-governance practices in Ruwa Local Board.
2. To identify institutional, technological, and behavioural barriers that constrain e-governance implementation at Ruwa Local Board.
3. To determine the user-acceptance factors (perceived usefulness, ease of use, digital skills, and leadership support) that influence staff utilisation of e-governance systems at Ruwa Local Board.
4. To evaluate the impact of e-governance on service delivery outcomes.
5. To design a practical Digital Governance Adoption Framework (DGAF) for local authorities.

1.4 Research Questions

1. What e-governance practices are currently used in Ruwa Local Board?
2. What institutional, technological, and behavioural barriers constrain e-governance implementation at Ruwa Local Board?
3. Which user-acceptance factors influence staff utilisation of e-governance systems at Ruwa Local Board?
4. How does e-governance impact service delivery at Ruwa Local Board?
5. What model can improve e-governance implementation in local authorities?

1.5 Research Hypotheses

- H1: Existing e-governance practices at Ruwa Local Board are rated significantly above the scale midpoint, indicating that digital routines are already in use rather than absent.
- H2: Technological and institutional constraints, particularly ICT infrastructure, significantly weaken e-governance adoption relative to other adoption dimensions.
- H3: User acceptance and digital skills positively influence the utilisation of e-governance systems among Ruwa Local Board employees.
- H4: E-governance adoption is positively and significantly associated with service delivery efficiency at Ruwa Local Board.
- H0: E-governance adoption is not significantly associated with service delivery efficiency at Ruwa Local Board.

H1–H3 are examined principally through the construct-level descriptives and interview evidence in Chapter 4. H4/H0 is the principal inferential test (Pearson correlation and simple regression of SDE on EGA). Specific objective 5 (design of DGAF) is a developmental objective and is therefore not expressed as a statistical hypothesis.

1.6 Research Assumptions

Four working assumptions underpinned the design. First, RLB staff who handle billing, licensing, records, and customer queries were treated as competent informants on how digital and paper routines actually operate, provided anonymity was guaranteed and participation remained voluntary. Second, the Board's willingness to grant access to personnel and selected documents was assumed to be sufficient for an embedded case study, while recognising that internal performance registers might not be fully released. Third, Likert ratings and interview accounts were assumed to be meaningful indicators of adoption and perceived service quality in a setting where objective turnaround data are incomplete. Fourth, findings from a single peri-urban council were assumed to support analytical, not statistical, transfer to authorities facing similar connectivity, skills, and integration constraints (Yin, 2018).

1.7 Justification of the Study

The study is justified on both scholarly and managerial grounds. Recent global assessments show that local e-government still trails national portals (United Nations, 2024), yet few empirically tested rollout models exist for cash-constrained Zimbabwean municipalities (Chigwata, 2016). Foundational accounts of e-governance failure in developing countries (Heeks, 2006; Ndou, 2004) explain why projects stall, but they do not tell a council manager the sequence in which readiness, infrastructure, skills, and integration should be tackled. By building and testing DGAF at Ruwa Local Board, the research supplies a context-specific working model that is currently missing from both the local-government literature and RLB practice.

1.8 Purpose of the Study

The research aim is to deliver a tested, practical framework that lifts e-governance maturity in local authorities, expecting gains in administrative speed, openness, and resident-facing service quality.

1.9 Significance of the Study

1. Local authorities will benefit from integrated systems that reduce costs and improve efficiency.
2. Citizens will gain improved access to services and participation opportunities.
3. Government and policymakers will receive insights for digital governance strategies aligned with Vision 2030 and NDS1.
4. Academics and researchers will benefit from empirically tested knowledge on municipal e-governance in Zimbabwe.

1.10 Delimitations

Scope is confined to RLB, drawing on staff and managers who use digital systems, not a nationwide council survey. Analysis covers administration and service delivery only; party politics and elections fall outside the boundary.

1.11 Limitations

Internal performance registers were not fully accessible, which may limit hard metrics. Self-reported answers could reflect bias. Time and budget fixed the work to one council; findings should not be extrapolated statistically beyond Ruwa, although Yin (2018) supports analytical transfer to similar peri-urban municipalities.

1.12 Definition of Key Terms

E-governance: deployment of ICT to streamline operations, strengthen services, widen transparency, and expand citizen participation (Heeks, 2006).

Local authority: sub-national government entity responsible for municipal services under Zimbabwe's Urban Councils Act [Chapter 29:15].

Service delivery: timeliness, accessibility, transparency, and quality of public services to residents and businesses.

Digital Governance Adoption Framework (DGAF): the five-phase working model developed in this study to guide e-governance implementation.

ICT infrastructure: hardware, software, networks, and connectivity supporting digital government.

1.13 Organisation of the Dissertation

- Chapter 1 sets context and aims.
- Chapter 2 reviews theory and builds the conceptual model.
- Chapter 3 documents methods.
- Chapter 4 reports and interprets results.
- Chapter 5 concludes, recommends, and presents DGAF.
- References and appendices close the document.

1.14 Chapter Summary

The chapter has positioned RLB within wider e-governance debates, stated the problem and aims, and fixed scope, assumptions, and terminology. Later chapters supply theory, methods, evidence, and the proposed DGAF.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter reviews scholarship and policy material on municipal e-governance in order to locate the Ruwa Local Board case and to ground the variables tested later. The review is organised as follows. First, core constructs—e-governance, maturity, service delivery, and adoption—are discussed as they appear in the literature rather than as a stand-alone glossary (operational definitions are already stated in Section 1.12). Second, four theoretical lenses (TAM, diffusion of innovation, institutional theory, and e-government maturity) are assessed for fit with a resource-constrained Zimbabwean council. Third, empirical studies and recent 2024–2025 digital-government assessments are compared. Fourth, the research gap is specified and the conceptual framework is derived. The chapter follows Hart (2018) and Saunders et al. (2019) on structured, critical reviewing rather than a catalogue of summaries.

2.2 Review of Core Constructs

The literature distinguishes e-government (online transactions) from e-governance, which also covers accountability, oversight, and citizen relations mediated by ICT (Heeks, 2006). That distinction matters for this study because RLB already performs selected transactions electronically; the unresolved issue is whether those transactions sit inside a governed, joined-up municipal process. Subsequent empirical sections therefore treat portals, electronic files, linked databases, and participation channels as parts of one governance arrangement, not as separate gadgets.

Maturity models describe a movement from static web pages toward horizontally integrated transactional services (Layne & Lee, 2001). Many African councils stall between publishing information and sharing data across departments, a pattern consistent with Zimbabwe's 2024 middle-group EGDI and weak local online-service scores (United Nations, 2024). The maturity lens is used in this review to interpret RLB's mix of electronic billing and manual registries, and later to set realistic DGAF targets rather than to import a high-income staging sequence uncritically.

Service delivery in the municipal literature is judged by speed, openness, access, and user satisfaction, not by the mere volume of transactions (World Bank, 2020, 2025). Utilities, roads, licensing, and billing remain the everyday tests of whether digitisation has changed the resident's experience. This study therefore measures delivery through efficiency, transparency, accessibility, and satisfaction constructs that follow from that literature, and links them to adoption rather than treating ICT spend as an outcome in itself.

Adoption is discussed in the literature as continued use of digital tools by staff and residents, shaped by perceived usefulness, ease of use, innovation attributes, and management backing (Davis, 1989; Rogers, 2003; Venkatesh & Davis, 2000). In a council setting, adoption is not a one-off go-live event. It is the daily choice to use the system instead of the paper workaround. That reading informs both the user-acceptance items in the questionnaire and the interview prompts on resistance and training.

Ndou's (2004) G2C, G2B, G2G, and G2E typology is used here to map channels rather than to define terms in isolation. RLB's strongest digital activity is G2C billing and licensing. Weak national–local data links restrict G2G integration, which helps explain why a resident's finance record and a front-desk query still fail to meet. The conceptual discussion therefore feeds directly into the theoretical and empirical sections that follow, instead of repeating the Chapter 1 glossary.

2.3 Theoretical Framework

2.3.1 Technology Acceptance Model (TAM)

Davis's (1989) TAM links intention to use ICT with beliefs about usefulness and ease of use; Venkatesh and Davis (2000) add peer and supervisor influence. The model is compact and testable yet pays limited attention to power cuts, funding, and procurement rules common in Zimbabwe. It still fits this study because questionnaire items capture user acceptance (UA) as one adoption dimension at RLB.

2.3.2 Diffusion of Innovation Theory (DOI)

Rogers (2003) explains spread through relative advantage, fit with existing practice, complexity, trial options, and visible results, helping explain why finance and ICT units at RLB often lead while engineering lags.

2.3.3 Institutional Theory

DiMaggio and Powell (1983, cited in Heeks, 2006) highlight regulatory push, peer copying, and professional norms as adoption drivers. Vision 2030 supplies pressure from above; neighbouring councils supply examples sideways; thin ICT professionalism weakens standards in procurement.

2.3.4 E-Government Maturity Model

Layne and Lee (2001) stage councils from web catalogues to horizontal integration—a useful diagnostic though born in settings with stable power and bandwidth. Adjusted for Zimbabwe's constraints, it helps set realistic DGAF targets for RLB.

2.4 Empirical Literature Review

Recent global assessments confirm that digital government is expanding, but that local service platforms lag national ones (United Nations, 2024) and that Sub-Saharan Africa still faces large gaps in shared infrastructure, skills, and citizen engagement (World Bank, 2025; International Telecommunication Union, 2024). Heeks (2006) remains useful for explaining why many projects fail: system blueprints do not match council realities, leaving automated pockets surrounded by paper routines. Ndou (2004) stresses infrastructure, skills, and trust gaps. World Bank (2020) finds that African payment portals succeed chiefly where mobile-money ecosystems are mature, while ministry–council data exchange stays limited.

Chigwata (2016) ties Zimbabwean council ICT spend to tight budgets and thin technical teams, often prioritising billing over holistic reform. UNDP (2018) connects digital government with inclusive, accountable institutions aligned to the SDGs. Zimbabwe's 2024 EGDI rank of 149 and middle-group score of 0.4481 show that national digital-government ambition has not yet translated

into strong online-service performance (United Nations, 2024). That national picture is the backdrop against which RLB's partial digitisation must be read.

Public-sector TAM work shows usefulness beliefs strongly predict e-service intention (Venkatesh and Davis, 2000). African councils also face unstable income, skills flight, and central grants (Ndou, 2004). Regional peers digitise revenue yet keep siloed back offices; Vision 2030 and NDS1 outpace what many municipalities can deliver on the ground.

Taken together, literature points to four municipal digital layers,portals, records, integration, and engagement—with payments often ahead of back-office linkage (Layne and Lee, 2001). Efficiency, transparency, accountability, and access rise when audit trails replace discretionary paper steps (Heeks, 2006; World Bank, 2020), informing how this study measures adoption and delivery.

Outcomes hinge on networks, skills, change readiness, and policy backing. Load-shedding and poor connectivity raise perceived complexity (Davis, 1989) and damp uptake. Evidence suggests wiring and training must precede major software rollouts, with refresher coaching to avoid skill fade; siloed buying, criticised by UNDP (2018), is visible at RLB.

Heeks (2006) ranks projects from failure to full success, with partial wins, working e-billing amid manual workflows, most common. Leadership, institutions, and interoperability emerge as enablers in OECD and World Bank guidance; across Sub-Saharan Africa, revenue digitisation is the usual first step, but integration must be planned or silos endure.

2.5 Research Gap

Five gaps motivate this thesis: over-focus on technology; Western maturity tools ill-suited to power and bandwidth limits; theory chapters seldom become rollout guides; few Zimbabwean models are empirically tested (Chigwata, 2016); and scarce mixed-methods work links adoption scores to delivery at council level.

RLB is examined to operationalise constructs, test the adoption–delivery hypothesis, and propose DGAF as a phased model grounded in local evidence.

Prior studies collectively justify the mixed-methods case design: Hart (2018) and Saunders, Lewis and Thornhill (2019) on review rigour; Heeks (2006) and Ndou (2004) on developing-country context; Layne and Lee (2001) and World Bank (2020) on delivery criteria; Davis (1989), Venkatesh and Davis (2000), and Rogers (2003) on uptake; Chigwata (2016) and Government of Zimbabwe (2021) on local institutions; UNDP (2018) on inclusion, each feeding variables, instruments, and the hypothesis tested later.

2.6 Conceptual Framework

The conceptual framework brings the four theoretical lenses into a single testable structure for Ruwa Local Board. Technology Acceptance Model supplies the user-acceptance path (usefulness and ease of use). Diffusion of Innovation explains why units with visible gains (finance, customer service) move faster than units whose benefits are less obvious. Institutional theory accounts for Vision 2030 and NDS1 pressure from above and for copying of neighbouring councils' billing systems. The maturity model locates RLB between catalogue/transaction stages and full horizontal integration. Together, these lenses imply that service-delivery outcomes depend on adoption, and that adoption itself is conditioned by infrastructure, skills, leadership readiness, and policy support. The framework is therefore not a simple list of variables; it is a hypothesised working order that later becomes the DGAF sequence.

- Independent variable :e-governance adoption, measured through e-governance adoption (EGA), system integration (SI), digital skills (DS), ICT infrastructure (ICT), and user acceptance (UA). H1 and H2 speak to the level and unevenness of these adoption dimensions; H3 speaks to the acceptance and skills path.
- Dependent variable :service-delivery outcomes, measured through service delivery efficiency (SDE), transparency (TR), accessibility (ACC), and citizen satisfaction (CS). H4 posits a positive association between adoption (EGA) and efficiency (SDE), which is the principal inferential test in Chapter 4.
- Moderating conditions :ICT infrastructure adequacy, staff and citizen digital skills, leadership and organisational readiness, and policy and budget support. These conditions are treated as the practical constraints that DGAF must sequence. Where infrastructure is weak, further

software modules are not expected to raise delivery scores, which is why the model places readiness and infrastructure before additional procurement.

Figure 2.1: Conceptual Framework

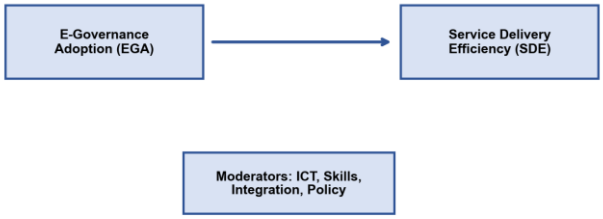

Figure 1 Conceptual Framework

Figure 1 maps these independent, dependent, and conditioning links. Survey items were written to the constructs in Table 1; H1–H4 were derived from the same map; and Chapter 4 reports descriptive evidence on each construct before the EGA–SDE inferential test. The framework therefore organises measurement, hypothesis testing, and the later design of DGAF, rather than standing as a decorative diagram.

2.7 Operationalisation of Variables

Table 1 Operationalisation of Variables

Construct	Variable code	Measurement
E-governance adoption	EGA	Likert 1–5
System integration	SI	Likert 1–5
Digital skills	DS	Likert 1–5
ICT infrastructure	ICT	Likert 1–5
User acceptance	UA	Likert 1–5
Service delivery efficiency	SDE	Likert 1–5
Transparency	TR	Likert 1–5
Accessibility	ACC	Likert 1–5

Citizen satisfaction	CS	Likert 1–5

Scale: 1 = Strongly Disagree, 5 = Strongly Agree. Chapter Four reports empirical results against these definitions.

2.8 Chapter Summary

The chapter has reviewed e-governance, maturity, service delivery, and adoption as they are used in the literature; assessed TAM, diffusion, institutional, and maturity lenses for a Zimbabwean municipal case; and compared empirical and 2024–2025 policy evidence. The gap that remains is the absence of an empirically tested, sequenced working model for a partly digitised local authority. The conceptual framework specifies adoption as the main influence on delivery, conditioned by infrastructure, skills, readiness, and policy, and it supplies the constructs and hypotheses examined in Chapters 3 and 4. The table below shows how the literature relates to the study's objectives.

Table 2 : Literature table

Research Objective	**Key Literature**	**Key Findings**	**Gap Identified**
Objective 1: Examine existing e-governance practices at Ruwa Local Authority.	**Layne & Lee (2001); Heeks (2006)**	E-governance evolves through maturity stages and improves public service delivery when effectively implemented.	Existing models describe maturity stages but do not assess current practices within Zimbabwean local authorities.
Objective 2: Identify institutional, technological, and behavioural barriers that	**Ndou (2004); Heeks (2006)**	Developing countries face challenges such as poor ICT infrastructure, limited funding, inadequate	Studies identify challenges but do not provide practical solutions tailored to Zimbabwean local authorities.

constrain e-governance implementation.		skills and policy constraints.	
Objective 3: Determine user-acceptance factors (usefulness, ease of use, digital skills, and leadership support) that influence staff utilisation.	**Davis (1989); Venkatesh & Davis (2000); Rogers (2003)**	User acceptance depends on perceived usefulness and ease of use, while innovation adoption is influenced by organisational and social factors.	Limited evidence on how these factors influence adoption in Zimbabwean local authorities.
Objective 4: Evaluate the effect of e-governance on service delivery.	**World Bank (2020); UNDP (2018)**	E-governance improves efficiency, transparency, accountability and citizen access to public services.	Few empirical studies measure this relationship within Zimbabwean local authorities.
Objective 5: Develop a working model for improved e-governance.	**Institutional Theory; TAM; DOI; E-Government Maturity Model**	Existing theories explain different aspects of technology adoption and implementation.	No integrated implementation framework exists specifically for Zimbabwean local authorities, leading to the development of the **Digital Governance Adoption Framework (DGAF)**.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

Methods used to meet the study aims are documented below, philosophy, design, sample, instruments, quality checks, analysis, ethics, and limits, reported in past tense per Saunders, Lewis and Thornhill (2019).

3.2 Research Philosophy

Pragmatism guided the inquiry: it privileges workable answers and allows surveys plus interviews (Saunders, Lewis and Thornhill, 2019), fitting both DGAF development and statistical testing of the adoption, delivery link at RLB.

3.3 Research Approach

Quantitative and qualitative strands ran together: Likert scores fed correlation and regression on the main hypothesis, while interviews and documents supplied context. Cross-checking sources improved trustworthiness (Creswell and Plano Clark, 2018).

3.4 Research Design

One embedded case RLB, was studied in depth (Yin, 2018), enabling pursuit of all five objectives (practices, barriers, uptake drivers, delivery effects, and model design) in a single live reform setting.

3.5 Saunders Research Onion

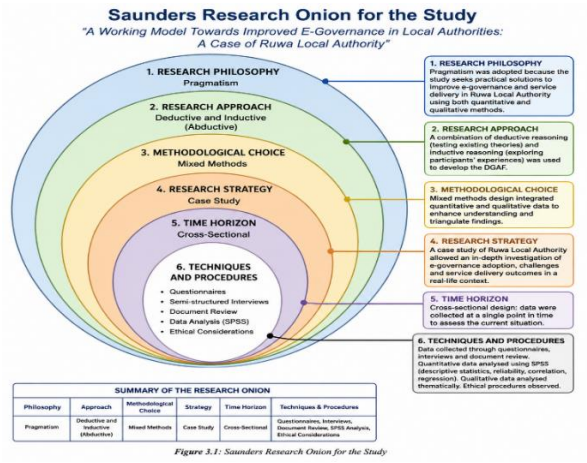

Fig3 1 Research Onion

Figure 3.1 applies Saunders et al. (2019) research onion to this study:

Table 3 Research onion to this study

Layer	Application
Philosophy	Pragmatism
Approach	Deductive (hypothesis testing) and inductive (interview themes)
Methodological choice	Mixed methods :concurrent survey and interviews
Strategy	Case study (Ruwa Local Board)
Time horizon	Cross-sectional (February–March 2026)
Techniques	Questionnaire, interviews, document analysis; SPSS; thematic analysis

3.6 Population

Participants were drawn from administration, ICT, finance, and customer service, units that routinely touch both digital and paper workflows and can comment credibly on adoption and service quality.

3.7 Sampling Techniques and Sample Size

Departments using e-systems were purposively chosen; willing staff were surveyed during planned visits. Of 55 forms issued, 50 were usable (91% response). Eight managers/supervisors, including ICT, finance, licensing, customer service, administration, and records were interviewed.

3.8 Data Collection Methods

3.8.1 Questionnaires

Appendix A lists nine five-point Likert constructs (EGA, SI, DS, ICT, UA, SDE, TR, ACC, CS). Forms reached staff by hand, email reminder, and internal Google Form to offset connectivity problems; Appendix G captures external ratepayer views.

3.8.2 Interviews

Eight 35 to 50 minute interviews followed Appendix B prompts mapped to the five objectives; recordings were transcribed and coded thematically with consent.

3.8.3 Document Analysis

RLB annual reports (2023 to 2024), internal ICT notes, and NDS1/Vision 2030 extracts were reviewed to triangulate survey and interview evidence.

3.9 Pilot Study

Six neighbouring staff (excluded from the main sample) piloted the instrument; wording was tweaked; mean completion time 18 minutes; item-total correlations >0.60; no items dropped (Appendix D).

3.10 Validity and Reliability

Validity: Items were mapped to Chapter 2 constructs and reviewed by the supervisor.

Reliability: SPSS Cronbach's alpha for adoption and delivery item groups appears in Section 4.5.

3.11 Data Analysis Procedures

SPSS 27 produced descriptives, correlation between EGA and SDE, and simple regression; interviews followed Braun and Clarke's (2006) thematic steps; strands merged in Section 4.9.

3.12 Ethical Considerations

Bindura University cleared ethics; RLB management authorised access; signed consent (Appendix C); anonymous codes R1–R50 and I1–I8; voluntary withdrawal allowed; password-protected storage (Appendix E).

3.13 Limitations and Mitigation

Table 4 Limitations and Mitigation

Limitation	Mitigation
Limited internal performance data	Document analysis and interview triangulation
Respondent bias	Anonymous questionnaires
Single case study	Analytical generalisation to similar urban councils (Yin, 2018)
Connectivity during fieldwork	Paper questionnaire alternatives

3.14 Chapter Summary

Pragmatism, mixed methods, and a single case were defended as the best fit; 50 surveys and eight interviews were obtained (91% response); quality and ethics steps were set out; findings follow in Chapter 4. The table below shows a summary of the chapter

Table 5 Chapter Summary

Methodology Component	Description
Research Philosophy	Pragmatism
Research Approach	Mixed Methods (Quantitative + Qualitative)
Research Design	Embedded Case Study
Study Area	Ruwa Local Authority

Population & Sample	50 questionnaire respondents and 8 interview participants (91% response rate).
Data Collection	Questionnaires, Interviews, Document Analysis
Data Analysis	SPSS Version 27 (Descriptive, Correlation, Regression) and Thematic Analysis
Outcome	Methodology ensured reliable and valid findings.

Figure 2 presents the research design of the study, showing how the pragmatist mixed-methods case at Ruwa Local Board links sampling, instruments, analysis, and the five research objectives.

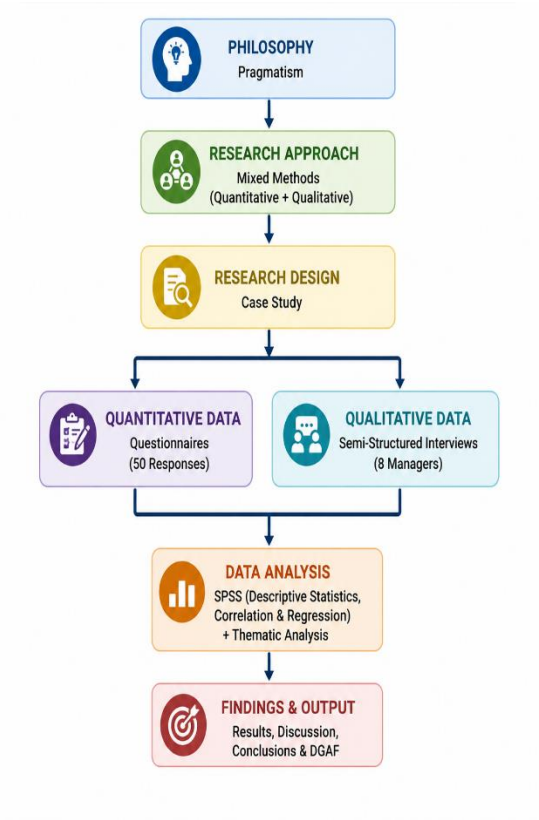

Figure 2 Research design of the study

CHAPTER 4: DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presents the empirical results from Ruwa Local Board in the order in which they were produced, so that the reader can follow the workflow from sample to interpretation. Section 4.2 reports the questionnaire response rate. Section 4.3 describes the demographic profile of the 50 staff respondents. Section 4.4 presents descriptive statistics construct by construct (staff adoption, system integration, digital skills, ICT infrastructure, user acceptance, and the four service-delivery measures). Section 4.5 checks reliability. Sections 4.6 and 4.7 test the association between e-governance adoption and service delivery efficiency (H4). Section 4.8 reports interview evidence on infrastructure, resistance, training, and perceived benefits. Section 4.9 discusses the combined results against the objectives and hypotheses. Unless stated otherwise, quantitative results are from SPSS Version 27 and N = 50.

4.2 Response Rate

Table 6 Questionnaire response rate

Distributed	Returned	Response rate
55	50	91%

A 91% return surpasses common survey thresholds (Saunders, Lewis and Thornhill, 2019), supporting inference within the sampled RLB staff.

4.3 Demographic Characteristics of Respondents

4.3.1 Gender

Table 7 Gender distribution (N = 50)

Category	Frequency	Percentage
Male	28	56%
Female	22	44%

Total	50	100%

Males were 56% of respondents, a slight skew to note when reading technology acceptance scores.

4.3.2 Age

Table 8 Age distribution (N = 50)

Category	Frequency	Percentage
20–30	12	24%
31–40	21	42%
41–50	13	26%
51 and above	4	8%
Total	50	100%

Most respondents (42%) were aged 31 to 40, suggesting mid-career staff familiar with both paper and digital routines.

4.3.3 Department

Table 9 Department distribution (N = 50)

Category	Frequency	Percentage
Administration	15	30%
ICT	10	20%
Finance	13	26%
Customer Service	12	24%
Total	50	100%

4.3.4 Years of Experience

Table 10 Years of experience (N = 50)

Category	Frequency	Percentage
Below 5 years	11	22%

5–10 years	24	48%
11–15 years	10	20%
Above 15 years	5	10%
Total	50	100%

4.3.5 Education

Table 11 Education level (N = 50)

Category	Frequency	Percentage
Diploma	11	22%
Bachelor's Degree	29	58%
Master's Degree	9	18%
Other	1	2%
Total	50	100%

Fifty-eight percent held bachelor's degrees, implying formal capacity to use ICT and reducing the chance that low education alone explains weak uptake.

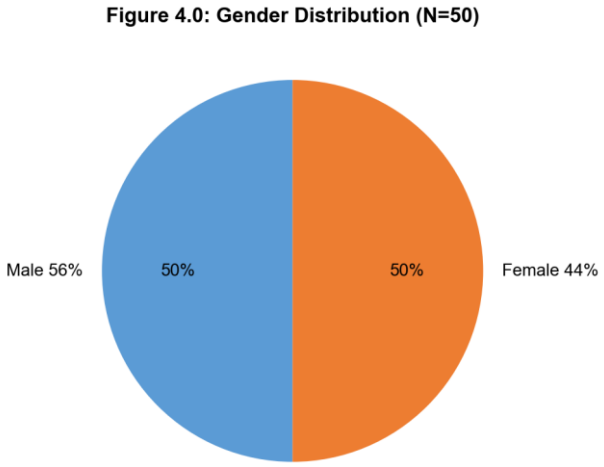

Figure 2 Gender

4.4 Descriptive Statistics of Study Constructs

Table 12 Descriptive statistics (N = 50)

Variable	Mean	Std. deviation
E-Governance Adoption (EGA)	4.24	0.73
System Integration (SI)	4.10	0.81
Digital Skills (DS)	4.20	0.69
ICT Infrastructure (ICT)	3.88	0.77
User Acceptance (UA)	4.18	0.74
Service Delivery Efficiency (SDE)	4.30	0.71
Transparency (TR)	4.12	0.75
Accessibility (ACC)	4.24	0.73
Citizen Satisfaction (CS)	4.26	0.72

Table 12 reports mean scores and standard deviations for the nine Likert constructs (1 = strongly disagree, 5 = strongly agree). The presentation below follows the conceptual framework: first the adoption-side constructs that speak to staff practice, skills, acceptance, integration, and infrastructure (H1–H3; Objectives 1–3), then the service-delivery constructs (Objective 4). A mean above the midpoint of 3.0 is read as agreement that the practice or outcome is present.

Staff adoption and related practices. E-governance adoption recorded a high mean (EGA M = 4.24, SD = 0.73), well above the midpoint, which supports H1: digital routines are already in use at RLB rather than absent. This finding is consistent with electronic billing and licensing already operating in the Board. System integration was also favourable but lower (SI M = 4.10, SD = 0.81), suggesting that staff see some linkage of systems yet still recognise incomplete join-up across departments. Digital skills (DS M = 4.20, SD = 0.69) and user acceptance (UA M = 4.18, SD = 0.74) were both high, which supports H3 at a descriptive level: employees who handle the systems largely accept them and report the competence to use them. ICT infrastructure was the weakest adoption-side construct (ICT M = 3.88, SD = 0.77). The gap between this score and the

other adoption means supports H2: infrastructure, not staff refusal, is the main brake. These four adoption results are the source of the Chapter 5 statements on staff adoption and infrastructure.

Figure 3 Service Delivery

Service-delivery outcomes. Service delivery efficiency was the strongest construct in the set (SDE M = 4.30, SD = 0.71). Accessibility (ACC M = 4.24, SD = 0.73) and citizen satisfaction as rated by staff (CS M = 4.26, SD = 0.72) were also high, while transparency was slightly lower (TR M = 4.12, SD = 0.75). Figure 4 displays the service-delivery pattern. Taken together, staff judge that digitisation has improved speed and access, which is the descriptive base for Objective 4 before the inferential test in Sections 4.6 and 4.7.

Reading Table 12 as a whole, every construct sits above the midpoint, so the Board is not starting from zero. The workflow implication is specific: adoption and perceived delivery are already high, but infrastructure trails the rest. Any working model must therefore protect existing billing and licensing gains while putting connectivity, devices, and power ahead of further stand-alone software. This is the empirical justification for the DGAF sequence proposed in Chapter 5.

Figure 4 Integration

Figure 5 presents the integration profile that corresponds to the SI mean of 4.10. The figure should be read with Table 12 and with the interview theme on incomplete join-up: integration is underway, but it is not even across units. The next sections check whether these scales are reliable and whether adoption predicts efficiency statistically.

4.5 Reliability Analysis

Table 13 Cronbach's alpha reliability coefficients

Construct	Variables	Cronbach's α
E-governance adoption	EGA, SI, DS, ICT, UA	0.949
Service delivery outcomes	SDE, TR, ACC, CS	0.973

Alphas were 0.949 (adoption) and 0.973 (delivery), both above Bryman's (2016) 0.70 rule, so inferential tests rest on reliable scales.

4.6 Correlation Analysis

Table 14 Pearson correlation : EGA and SDE

	EGA	SDE
EGA	1.000	0.782
SDE	0.782	1.000

Correlation significant at $p < 0.01$ (two-tailed).

EGA and SDE correlated at $r = 0.782$ ($p < 0.01$, two-tailed). H0 is rejected and H4 is supported for Ruwa Local Board: higher e-governance adoption is associated with higher perceived service-delivery efficiency.

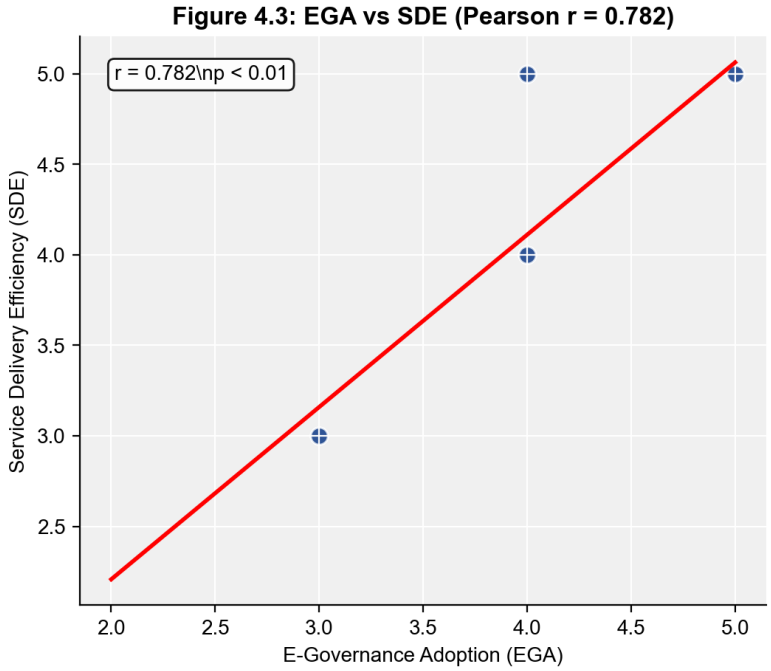

Figure 5 Correlation

4.7 Regression Analysis

Table 15 Model summary

R	R Square	Adjusted R Square	Std. error
0.782	0.611	0.603	0.432

Regression accounts for 61.1% of SDE variance ($R^2 = 0.611$; Adj. $R^2 = 0.603$), so adoption is a major but not sole driver of perceived efficiency.

Table 16 ANOVA

Model	Sum of squares	df	Mean square	F	Sig.
Regression	14.622	1	14.622	78.411	0.000
Residual	9.210	48	0.192		
Total	23.832	49			

Table 17 Regression coefficients

Variable	Beta	t	Sig.
E-Governance Adoption (EGA)	0.782	8.855	0.000

EGA significantly predicts SDE ($\beta = 0.782$, $t = 8.855$, $p < 0.001$): higher adoption aligns with higher efficiency scores.

4.8 Interview Findings

Eight managers and supervisors were interviewed to explain the quantitative pattern in Section 4.4, especially the high adoption scores and the weaker infrastructure score. The themes that follow (Table 18) are therefore the qualitative source for Chapter 5 statements on staff adoption, infrastructure, resistance, and training. ICT Manager: "Digital systems have significantly improved billing efficiency and record management. However, internet connectivity and limited infrastructure continue to affect system performance."

Administrative Officer: "There has been resistance from some employees who are more comfortable with manual systems. Training programmes are helping improve acceptance."

Customer Service Manager: "Citizens are appreciating online services because queues have reduced and responses are faster. However, some residents still lack digital literacy."

Table 18 Emerging qualitative themes

Theme	Issues identified
Infrastructure challenges	Unstable internet; limited hardware; power outages
Resistance to change	Preference for manual systems; slow adaptation
Benefits of digital systems	Faster delivery; transparency; reduced paperwork
Policy limitations	Unclear frameworks; inadequate ICT funding
Training needs	Continuous ICT training; digital literacy support

4.9 Discussion of Findings

Results resonate with Heeks (2006): billing and online payments shortened cycles at RLB. UA (4.18) and EGA (4.24) means align with Davis (1989) on usefulness driving uptake in organisations.

Rogers (2003) helps explain faster uptake where benefits are visible (ICT, customer service) versus slower back-office adoption. Institutional theory shows Vision 2030 pressure outpacing local infrastructure (DiMaggio and Powell, 1983, cited in Heeks, 2006).

Quantitative optimism aside, infrastructure scored lowest (3.88); interviews cited unstable internet, weak hardware, outages, resistance, and training gaps. Surveys, interviews, and documents converged (Yin, 2018), limiting single-method bias.

The r = 0.782 link is stronger than many public-sector TAM studies reporting moderate effects (Venkatesh and Davis, 2000), implying tight coupling at RLB between adoption and perceived efficiency, though correlation is not causation and the single case limits generalisation (Yin, 2018).

Managers should not expect more standalone billing modules to lift delivery without networks, integration, and training, conditions Heeks (2006) and Ndou (2004) deem essential. Policymakers must pair Vision 2030 rhetoric with interoperability and connectivity support (UNDP, 2018; World Bank, 2020); RLB (2024) reports mirror partial-success patterns from the literature.

High alphas, a 91% response, and matching interview themes bolster credibility (Bryman, 2016; Creswell and Plano Clark, 2018). Braun and Clarke (2006) themes, resistance, funding, literacy, add nuance beyond Likert means, which may be socially inflated; future work should add objective turnaround and complaint metrics where records allow.

Table 19 Alignment of objectives with findings

Objective	Finding
Examine e-governance practices	High EGA (4.24); billing and licensing digitised
Identify implementation barriers	Infrastructure lowest; resistance and policy gaps in interviews
Determine user-acceptance factors	Strong UA and DS; ICT infrastructure weakest
Evaluate service delivery impact	SDE = 4.30; $r = 0.782$, $p < 0.01$
Develop working model	DGAF proposed in Chapter Five

Evidence supports the Chapter 2 model and underpins the DGAF presented in Chapter 5.

4.10 Chapter Summary

The chapter followed a fixed workflow: response rate, demographics, construct-level descriptives, reliability, correlation, regression, interviews, and discussion. Staff adoption (EGA 4.24) and efficiency (SDE 4.30) were high; ICT infrastructure (3.88) was the weakest construct; user acceptance and digital skills were strong; interviews confirmed connectivity, resistance, and training as the main qualifying themes; and H4 was supported ($r = 0.782$; $R^2 = 0.611$). Chapter 5 draws conclusions and presents DGAF from these same sections, not from unsourced summaries.

Research Objective	Key Findings	Conclusion
Objective 1: Examine current practices	E-Governance Adoption Mean = **4.24**	Digital systems are widely adopted.
Objective 2: Identify implementation barriers	ICT Infrastructure Mean = **3.88**; connectivity, power outages and resistance identified	Infrastructure remains the greatest barrier.
Objective 3: Determine user-acceptance factors	Strong User Acceptance and Digital Skills	Staff generally accept digital systems.
Objective 4: Evaluate impact	Service Delivery Mean = **4.30**; Correlation **r = 0.782**, Regression **R^2 = 0.611**	Adoption significantly improves service delivery.
Objective 5: Design framework	Evidence supported development of DGAF	Research objectives successfully achieved.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

Findings are synthesised, objectives reviewed, DGAF presented, conclusions and recommendations stated, contributions noted, and future work suggested.

5.2 Summary of Findings

The findings summarised here are drawn directly from Sections 4.4 (construct descriptives), 4.6–4.7 (correlation and regression), and 4.8 (interview themes). They are not new results.

1. Staff adoption: Section 4.4 reported a high e-governance adoption mean (EGA M = 4.24, SD = 0.73) and a high efficiency mean (SDE M = 4.30, SD = 0.71), indicating that employees already recognise digitisation gains.
2. Infrastructure: the same descriptive table showed ICT infrastructure as the lowest construct (M = 3.88, SD = 0.77), highlighting networks, devices, and power as the main remaining barrier (H2).
3. Interviews (Section 4.8 and Table 18) flagged connectivity, change resistance, and training gaps, while acknowledging faster billing and shorter queues.
4. Inferential tests (Sections 4.6–4.7): adoption and efficiency correlated strongly ($r = 0.782$, $p < 0.01$).
5. Regression showed adoption predicting efficiency ($R^2 = 0.611$, $\beta = 0.782$, $p < 0.01$); H0 was rejected and H4 was supported.

5.3 Achievement of Research Objectives

Table 20 Achievement of research objectives

Objective	Status	Evidence
Examine existing e-governance practices	Achieved	High EGA, SI; billing/licensing digitised
Identify challenges	Achieved	ICT infrastructure lowest; interview themes
Analyse adoption factors	Achieved	Strong UA and DS; TAM/DOI supported

Evaluate service delivery impact	Achieved	SDE = 4.30; r = 0.782
Design DGAF	Achieved	Five-phase framework below

All five specific objectives and the main research objective were demonstrably achieved, as evidenced by the alignment of empirical findings with each stated aim (see Table 5.1).

5.4 Proposed DGAF Framework

Based on findings and literature, the study proposes the Digital Governance Adoption Framework (DGAF) ,a five-phase model for local authorities in developing contexts.

Figure 5.1: Digital Governance Adoption Framework (DGAF)

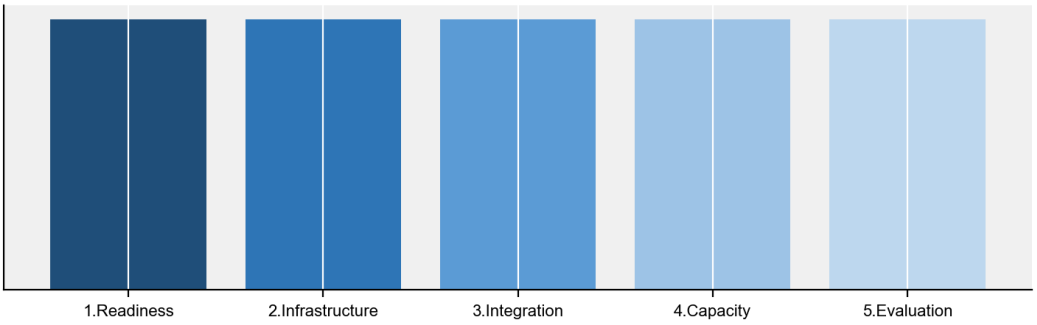

Figure 6 Dgaf

Table 21 DGAF phases and activities

Phase	Focus	Key activities
1. Readiness assessment	Baseline diagnosis	Audit systems, skills, policies, maturity stage
2. Infrastructure and policy alignment	Enabling environment	Upgrade connectivity; ring-fence ICT budget; align with NDS1
3. System integration	Interoperability	Shared databases; citizen portal; finance–licensing linkage
4. Capacity building	Human capital	Training; digital champions; change management
5. Continuous evaluation	Sustainability	KPIs on uptime, turnaround time, satisfaction; annual review

DGAF is designed as an iterative rather than linear process. For Ruwa Local Board, Phases 1 (Readiness Assessment) and 2 (Infrastructure and Policy Alignment) should be prioritised before procuring additional standalone software modules, thereby avoiding the replication of existing fragmentation.

5.5 Conclusions

RLB has advanced revenue and customer-facing digitisation, with statistics linking adoption to efficiency, yet infrastructure, uneven policy follow-through, and incomplete change management still block full transformation.

Software alone cannot reform councils; joined-up systems, capable staff, dependable networks, and accountable leadership are all required. DGAF offers a phased path aligned with Vision 2030 and NDS1.

5.6 Recommendations

Ruwa Local Board Management

1. Establish a cross-departmental e-governance steering committee with executive mandate to coordinate digital initiatives, enforce interoperability standards, and monitor implementation progress.
2. Ring-fence a dedicated ICT capital budget allocation for connectivity infrastructure upgrades and integrated software procurement, protected from reallocation to non-ICT expenditure.
3. Implement a centralised data hub integrating finance, licensing, and customer service databases within an 18-month timeframe, enabling real-time cross-departmental data sharing.
4. Launch a citizen engagement portal with mobile-responsive design and assisted-service options for residents with limited digital literacy, ensuring inclusive access.

5. Publish quarterly digital service delivery key performance indicators (KPIs) to institutionalise accountability and enable evidence-based management review.

Government and Policymakers

1. Issue national ICT standards for local authorities mandating system interoperability, data protection compliance, and minimum connectivity requirements.
2. Expand central government connectivity support programmes to include peri-urban municipalities currently underserved by reliable internet infrastructure.
3. Incorporate e-governance maturity indicators into Ministry of Local Government oversight and performance assessment frameworks for local authorities.

Citizens and Civil Society

1. Actively participate in council digital feedback and consultation channels to ensure citizen voices inform e-governance design and service improvement.
2. Support community-based digital literacy programmes to reduce the citizen-side adoption barrier identified in interview findings.

Academia

1. Replicate this study in rural district councils to test the generalisability of DGAF across different municipal contexts and resource profiles.
2. Conduct longitudinal evaluation of DGAF implementation at Ruwa Local Board to assess sustained impact on service-delivery outcomes over time.

5.7 Contribution of the Study

- **Theoretical:** Combines TAM, DOI, institutional, and maturity lenses for Zimbabwean councils with tested adoption delivery links.
- **Practical:** DGAF supplies a phased, budget-aware rollout guide for partly digitised municipalities.

- **Methodological:** Shows how pragmatist mixed methods can triangulate surveys, interviews, and documents in public-sector research.

5.8 Study Limitations and Reflections

Several limits bound the conclusions. A single RLB case prevents statistical generalisation, transfer is analytical to similar peri-urban councils only (Yin, 2018). Likert responses may carry social-desirability bias, partly offset by interviews (Bryman, 2016). Limited access to longitudinal records restricted objective service checks, and the cross-sectional snapshot cannot prove sustainability. Employee views dominate; resident uptake and exclusion need separate study. These boundaries define where DGAF should be applied and retested.

5.9 Areas for Further Research

Further work could study resident uptake, integration costs, multi-province comparisons, and municipal cybersecurity governance.

5.10 Chapter Summary

A significant adoption delivery link at RLB was confirmed; objectives were met; DGAF and stakeholder recommendations were set out; theoretical, practical, and methodological contributions to Zimbabwean municipal e-governance were articulated. Table below shows summary of objectives achieved

Table 22 Objective Achievement

Research Objective	Achievement	Recommendation
Objective 1	Achieved	Continue expanding digital services.
Objective 2	Achieved	Invest in ICT infrastructure and connectivity.
Objective 3	Achieved	Strengthen staff training and change management.
Objective 4	Achieved	Improve system integration and monitor service performance.

Objective 5	Achieved	Implement the proposed **Digital Governance Adoption Framework (DGAF)** across local authorities.

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APPENDICES

Appendix A: Questionnaire

Cover Information

Study title: A Working Model Towards Improved E-Governance in Local Authorities: A Case of Ruwa Local Board

Researcher: Mashangu Peace (B251771A)

Supervisor: Dr Rusike

Institution: Bindura University of Science Education, Graduate School of Business

Target respondents: Employees of Ruwa Local Board in Administration, ICT/Records, Finance/Revenue, and Licensing/Customer Service departments.

Instructions: Complete Section A (demographics). For Sections B and C, rate each statement: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree. Section D is optional.

Section A: Demographic Information

Item	Question	Response options
A1	Gender	Male / Female
A2	Age group	20–30 / 31–40 / 41–50 / 51 and above
A3	Department	Administration / ICT–Records / Finance–Revenue / Licensing–Customer Service
A4	Years of experience at RLB	Below 5 / 5–10 / 11–15 / Above 15 years
A5	Highest education	Diploma / Bachelor's Degree / Master's Degree / Other

Section B: E-Governance Adoption (Likert 1–5)

No.	Code	Statement
B1	EGA	Ruwa Local Board has effectively adopted e-governance systems.
B2	SI	Information systems across departments are well integrated.
B3	DS	Staff possess adequate digital skills for e-governance systems.
B4	ICT	ICT infrastructure (hardware, software, connectivity) is adequate for daily operations.
B5	UA	I find e-governance systems useful and easy to use.

Section C: Service Delivery Outcomes (Likert 1–5)

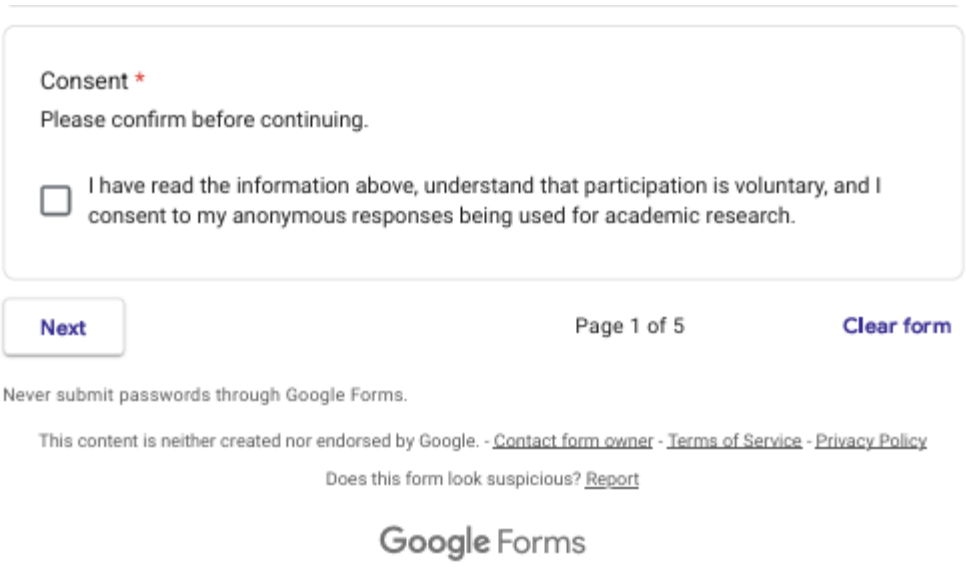
No.	Code	Statement
C1	SDE	E-governance has improved service delivery efficiency in my department.
C2	TR	E-governance has improved transparency in council operations.
C3	ACC	Citizens can access council services more easily through digital channels.
C4	CS	Citizen satisfaction with council services has improved due to e-governance.

Section D: Open-Ended Questions (Optional)

1. What e-governance system(s) do you use most frequently in your daily work?
2. What is the greatest challenge affecting e-governance implementation at Ruwa Local Board?
3. What one improvement would you recommend to strengthen digital governance at Ruwa Local Board?

Consent Statement

By returning this questionnaire, I confirm voluntary participation, confidentiality of responses, and consent to anonymous academic use of my answers.



Online Survey : Internal Links (Employee Questionnaire)

The employee questionnaire was also administered online via Google Forms. The links below were used during data collection at Ruwa Local Board.

Link type	URL
Respondent share link	https://docs.google.com/forms/d/e/1FAIpQLSfBu1Y5DONtA8t-6SuMKcQyqXCPT85nGMW7sxXWLGPVCdcgAA/viewform
Researcher edit form	https://docs.google.com/forms/d/11DgoVqz931mW2g9ox6s2PfJzaWFtrwctaQS6fZlmepg/edit
Responses spreadsheet	https://docs.google.com/spreadsheets/d/1TP4chrF0M_mEdB60CpuMHzvpATTKQqH4fZoLRBVDcWw/edit

Appendix B: Interview Guide

1. Which e-governance systems are used in your department at Ruwa Local Board?

2. What improvements have digital systems brought to service delivery?

3. What challenges affect e-governance implementation (infrastructure, skills, policy)?

4. What factors encourage or discourage staff adoption of digital systems?

5. How do citizens interact with digital services?

6. What should a practical implementation model (DGAF) include?

Appendix C: Informed Consent Form

I understand that participation in this study is voluntary. I may withdraw at any time without penalty. My responses will be kept confidential and used for academic purposes only. I consent to participate in this research.

Name: _____ Signature: _____ Date: _____

Appendix D: Pilot Study Evidence

A pilot study was conducted with six employees (excluded from the final sample). Average completion time: 18 minutes. Item-total correlations exceeded 0.60. Minor wording adjustments were made before main data collection.

Appendix E: Ethical Clearance

RESEARCH ETHICS COMMITTEE

P. Bag 1020
BINDURA, Zimbabwe
Email : rid@buse.ac.zw

BINDURA UNIVERSITY OF SCIENCE EDUCATION [BUSE]

11 June 2026

Peace Mashangu
Bindura University of Science Education
Graduate School of Business
P. Bag 1020
Bindura

Dear Peace Mashangu

RE: INSTITUTIONAL RESEARCH COMMITTEE ETHICAL CLEARANCE-APPROVAL NUMBER: BUSEREC/0226/2026

Your application for research ethical clearance related to the topic '**A Working Model Towards Strengthening E-Governance for Digital Revenue Collection in Zimbabwean Local Authorities a case of Ruwa Local Authority**' has been approved and allocated approval Number: **BUSEREC/0226/2026**. You are to quote this approval number for all correspondences inclusive of consent forms and any other documents as and when appropriate. The approval period is as stated below:

Type of Meeting	:	19th Research Ethics Committee meeting
Approval Date	:	11/06/2026
Expiry date	:	10/06/2027

The project will automatically discontinue on the expiry date. You can apply for renewal three months before the expiry date. The renewal application should be accompanied by a progress report.

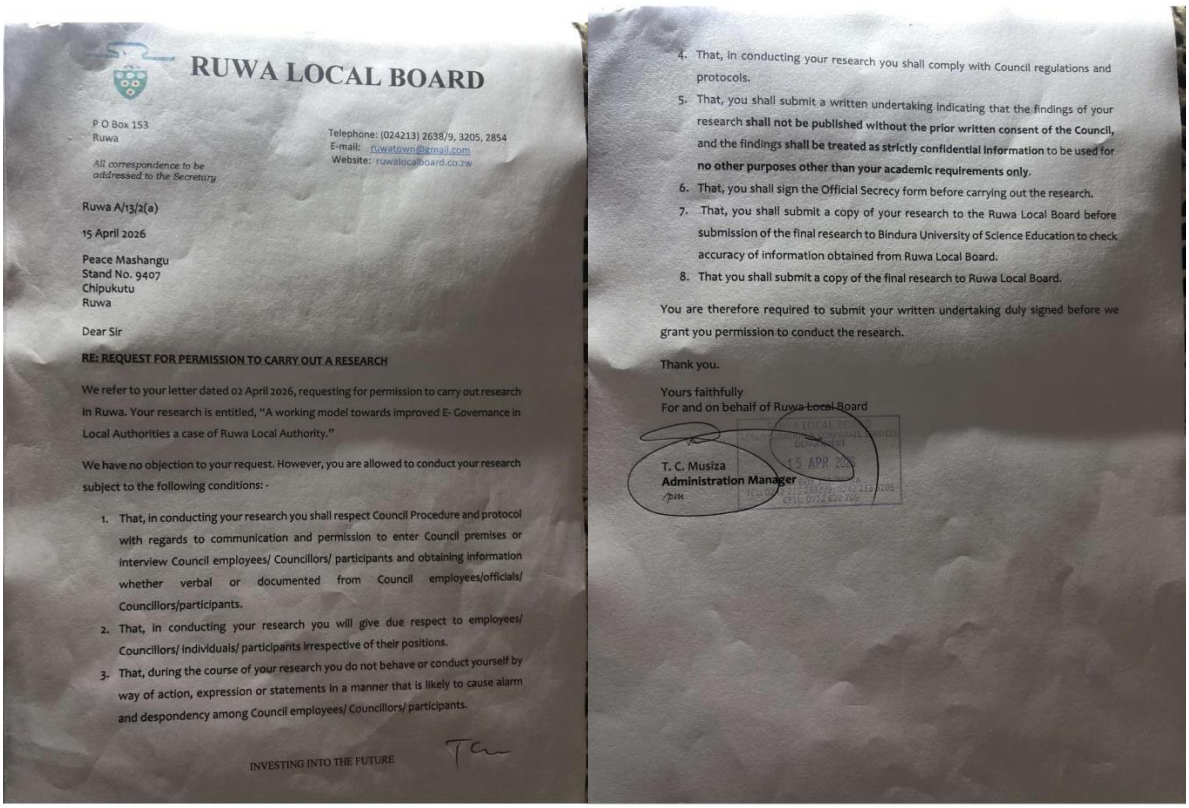
You are not expected to make any changes/adjustments to the protocol including the consent documents. Any trials involving drugs, devices and biologics require approval of the Medicines Control Authority of Zimbabwe before commencement. All problems to do with the safety of participants must be reported to BUSEREC within three (3) working days.

Upon termination of the study, a report has to be submitted to BUSEREC.

Yours sincerely

BUSEREC CHAIRPERSON

Clearance from Ruwa Local Board



RUWA LOCAL BOARD

P O Box 153
Ruwa

All correspondence to be addressed to the Secretary

Telephone: (024213) 2638/9, 3205, 2854
E-mail: ruwatown@gmail.com
Website: ruwalocalboard.co.zw

Ruwa A/13/2(a)

15 April 2026

Peace Mashangu
Stand No. 9407
Chipukutu
Ruwa

Dear Sir

RE: REQUEST FOR PERMISSION TO CARRY OUT A RESEARCH

We refer to your letter dated 02 April 2026, requesting for permission to carry out research in Ruwa. Your research is entitled, "A working model towards improved E- Governance in Local Authorities a case of Ruwa Local Authority."

We have no objection to your request. However, you are allowed to conduct your research subject to the following conditions: -

1. That, in conducting your research you shall respect Council Procedure and protocol with regards to communication and permission to enter Council premises or interview Council employees/ Councillors/ participants and obtaining information whether verbal or documented from Council employees/officials/ Councillors/participants.
2. That, in conducting your research you will give due respect to employees/ Councillors/ individuals/ participants irrespective of their positions.
3. That, during the course of your research you do not behave or conduct yourself by way of action, expression or statements in a manner that is likely to cause alarm and despondency among Council employees/ Councillors/ participants.

INVESTING INTO THE FUTURE

4. That, in conducting your research you shall comply with Council regulations and protocols.
5. That, you shall submit a written undertaking indicating that the findings of your research **shall not be published without the prior written consent of the Council,** and the findings **shall be treated as strictly confidential information** to be used for **no other purposes other than your academic requirements only.**
6. That, you shall sign the Official Secrecy form before carrying out the research.
7. That, you shall submit a copy of your research to the Ruwa Local Board before submission of the final research to Bindura University of Science Education to check accuracy of information obtained from Ruwa Local Board.
8. That you shall submit a copy of the final research to Ruwa Local Board.

You are therefore required to submit your written undertaking duly signed before we grant you permission to conduct the research.

Thank you.

Yours faithfully
For and on behalf of Ruwa Local Board

T. C. Musiza
Administration Manager
/pm

15 APR 2026

Figure 7 Clearance from Ruwa Local Board

Appendix F: Supporting Data Outputs

Variable coding: EGA, SI, DS, ICT, UA, SDE, TR, ACC, CS (Likert 1–5).

Sample of raw dataset (R1–R10):

Table 23 Sample of raw dataset (R1–R10):

ID	Gender	Dept	EGA	SI	DS	ICT	UA	SDE	TR	ACC	CS
R1	M	ICT	5	5	5	4	5	5	4	5	5
R2	F	Finance	4	4	4	4	4	4	4	4	4
R3	M	Admin	4	3	4	3	4	4	3	4	4
R4	F	Customer Service	5	4	4	4	5	5	5	5	5
R5	M	ICT	5	5	5	5	5	5	4	5	5
R6	F	Finance	3	3	3	3	3	3	3	3	3
R7	M	Admin	4	4	4	3	4	4	4	4	4
R8	F	Customer Service	5	4	5	4	5	5	5	5	5
R9	M	ICT	4	5	5	5	4	5	4	5	4
R10	F	Finance	3	3	4	3	3	3	3	3	3

Complete dataset (R1–R50):
https://docs.google.com/spreadsheets/d/1uMCdPKMCH0OybjkVlTP5LapABZXfiPaLY9KqAxLdknc/edit?usp=sharing

Appendix G: Citizen / Customer Questionnaire

Cover Information

Study title: A Working Model Towards Improved E-Governance in Local Authorities: A Case of Ruwa Local Board

Researcher: Mashangu Peace (B251771A)

Supervisor: Dr Rusike

Institution: Bindura University of Science Education, Graduate School of Business

Target respondents: Residents, ratepayers, business owners, and community members who use Ruwa Local Board services.

Instructions: Complete Section A (profile). For Sections C and D, rate each statement: 1 = Strongly Disagree, 5 = Strongly Agree. Sections B and E are optional where indicated.

Section A: About You

Item	Question	Response options
A1	Gender	Male / Female / Prefer not to say
A2	Age group	18–25 / 26–35 / 36–45 / 46–55 / 56 and above
A3	Education	Primary / Secondary / Diploma / Bachelor's / Master's or above / Other
A4	Years as Ruwa resident or ratepayer	Less than 1 / 1–3 / 4–7 / 8–15 / More than 15 years
A5	Respondent type	Residential / Business / Both / Other community member
A6	Services used in past 12 months	Water billing, Licences, Building plans, Refuse, Rates, Enquiries (select all)

Section B: Use of Digital Services

- B0. Have you used any digital channel for RLB services? (Yes regularly / Yes occasionally / In-person only / Not aware of digital options)
- B0b. Which channels have you used? (In-person, Mobile money, Bank transfer, Website, Email, WhatsApp, SMS, Other)

Section C: E-Governance and Digital Services (Likert 1–5)

No.	Code	Statement
C1	EGA	Ruwa Local Board has effectively adopted digital services for residents and businesses.
C2	ACC	I can access RLB services easily through available channels (office, phone, or digital).
C3	UA	RLB digital services are useful and easy to use.
C4	ICT	Digital payment and service channels work reliably when I need them.
C5	DS	I have sufficient digital skills to use RLB online or mobile services.

Section D: Service Delivery and Satisfaction (Likert 1–5)

No.	Code	Statement
D1	SDE	Digital or improved options save me time compared to repeated office visits.
D2	TR	RLB provides clear information about fees, processes, and requirements.
D3	SI	Information I receive from RLB is consistent across different services.
D4	CS	I am satisfied with Ruwa Local Board services overall.
D5	NPS	How likely are you to recommend RLB services to others? (1 = Very unlikely, 5 = Very likely)

Section E: Open-Ended Questions (Optional)

1. Which RLB service do you use most often?

2. What is the greatest challenge accessing RLB services?

3. What one improvement would you recommend for RLB digital services?

Consent Statement

I am 18 years or older, participation is voluntary, and I consent to anonymous academic use of my responses.

Online Survey: External Links (Citizen / Customer Questionnaire)

The citizen/customer questionnaire was administered online via Google Forms for residents, ratepayers, and business customers. The links below were used for supplementary data collection.

Link type	URL
Respondent share link	https://docs.google.com/forms/d/e/1FAIpQLSc-1ZjLpzolIG4Mh8sBzKTky4VAIvF7oxdA_grD4e4MHfXRaw/viewform
Researcher edit form	https://docs.google.com/forms/d/1mi0w9kHW1IUSb5g9uVzORSzPHghxYj2gim0cZIhTRjk/edit
Responses spreadsheet	https://docs.google.com/spreadsheets/d/1__9PM0D92MU-50Z_y2IexJeE2IAYSHA_r0OwXPRZ0Hc/edit

Appendix F: PLAGARISM REPORT

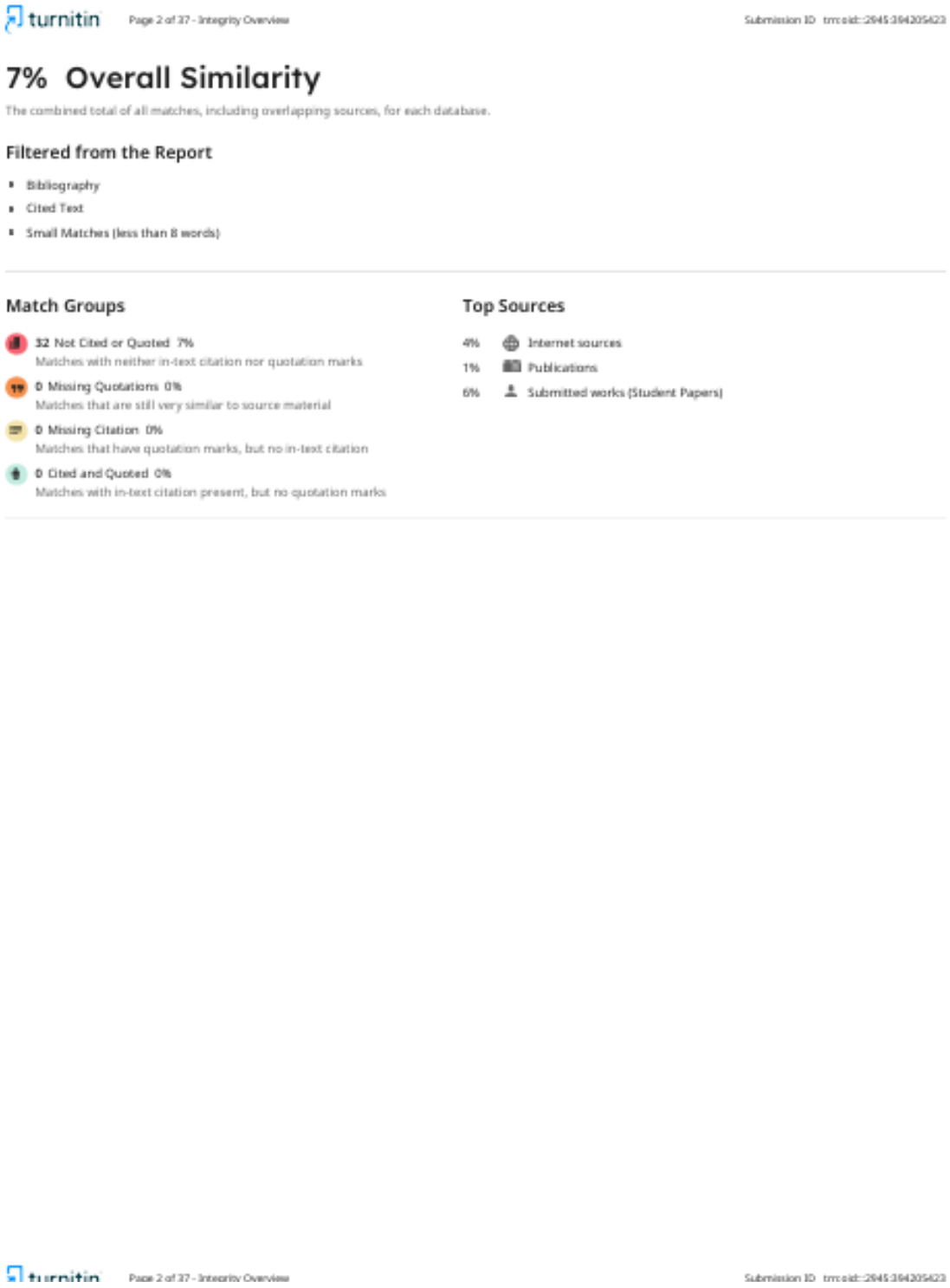


Figure 8 PLAGARISM REPORT

Match Groups

- 32 Not Cited or Quoted 7%
  Matches with neither in-text citation nor quotation marks
- 0 Missing Quotations 0%
  Matches that are still very similar to source material
- 0 Missing Citation 0%
  Matches that have quotation marks, but no in-text citation
- 0 Cited and Quoted 0%
  Matches with in-text citation present, but no quotation marks

Top Sources

4% Internet sources
1% Publications
6% Submitted works (Student Papers)

Top Sources

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

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3	Internet	www.scirp.org <1%
4	Student papers	Midlands State University on 2015-10-27 <1%
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