

Audit Committee Effectiveness and Artificial Intelligence Adoption in Zimbabwean State-Owned Institutions: A Systematic Literature Review

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ABSTRACT

This study examines the convergence of audit committee effectiveness and artificial intelligence (AI) adoption in Zimbabwean state-owned institutions. The study aims to address the empirical research gap on artificial intelligence use in public auditing existing in emerging economies. The study adopted a systematic literature review methodology which followed the preferred reporting items for systematic reviews and meta-analysis (PRISMA) framework. The study identified 101 articles through Scopus and Google Scholar databases, and 20 peer-reviewed articles were included. The included articles were published between 2019 and 2026. The included studies were appraised for quality by the Mixed Methods Appraising Tool (MMAT) 2018. The study's finding indicated that AI adoption in Zimbabwean state-owned institutions is at its initial stage. Weak digital infrastructure, skills shortage, high implementation costs and political interference were cited as obstacles to AI adoption in Zimbabwe state-owned institutions. Audit committees were noted to be critical for accountability and financial oversight; however, their effectiveness is limited by independence and capacity constraints. The study recommended that policy makers and institutions should strengthen digital infrastructure and reinforcement of audit committee independence to advance AI adoption in Zimbabwean state-owned institutions. The government of Zimbabwe is urged to develop clear regulatory standards to prevent political interference and fragmented data systems. The study links TOE, Agency, and institutional theories as an integrated framework to explain AI adoption in resource constrained institutions. This study offers practical insights for auditors, policy makers and researchers aiming to improve accountability and governance in Zimbabwe's public sector.

Keywords: Artificial Intelligence (AI), AI Adoption, Audit Committees, State-owned Institutions

INTRODUCTION

The global rise of Artificial intelligence in organizations has rapidly transformed global business operations and strategic management. This transition has also affected the operations of Audit committees in organizations across the globe. Mustapha et al. (2025) acknowledged that audit committees are adapting to the demands of rapid technological change. The research revealed that Artificial Intelligence has become a powerful tool to transform audits and increase audit committees' effectiveness as well as audit quality (Mustapha et al. 2025). According to Frimpong (2025) Artificial Intelligence has emerged as a focal point investment by governments worldwide including those countries with limited resources across Africa, Southern Asia, and Latin America. Chipfumbu et al., (2024) view AI as revolutionizing corporate governance, enhancing audit committees' efficiency, accuracy and improving decision making.

Literature reveals that corporate governance is a supportive and a decisive force that shapes audit committee effectiveness. Munyepwa et al. (2025) and Legodi & Coetzee (2025) state that corporate governance principles are intended to enhance accountability, transparency, and oversight. In addition, they stated that corporate governance is essential in combating corruption and restoring trust in public sector institutions. Soi et al., (2025) highlighted the audit committee's role in reducing information asymmetry between principals and agents.

Chigutei (2026) argues that this function is challenged by political and administrative interference as a persistent threat to audit independence. According to Mbelwa & Munyangabi (2024), the structural provisions are insufficient without genuine independence and objectivity revealing the gap between governance frameworks in theory and their practical implementation.

Considering AI adoption by audit committees corporate governance assumes a more complex role. KPMG (2025) and EY Center for Board Matters (2025), states that audit committees are increasingly tasked with overseeing AI related risk. The audit committee is therefore expected to have capacity and expertise. Empirical evidence by Legodi & Coetzee (2025) reveal that audit committees often lack technical knowledge of managing emerging AI technologies effectively. Frimpong (2025) recommends the implementation of mechanisms like Ethics Council to address the implications of AI on audit committees. Zhang & Zhu (2025) suggests that there is need for cultural adaptive governance models to foster trust in human-AI interactions. Corporate governance is viewed as critical in guiding both audit committee performance and AI integration. However, its effectiveness depends on continuous adaptation, capability development and increased digitalized environments.

1.1 Research Problem

The introduction of digital technologies has transformed audit committees and their operations globally. The application and adoption of AI in emerging economies like Zimbabwe remains limited and underexplored. Zimbabwean economy and its state-owned institutions face unique challenges including digital infrastructure deficits, economic volatility, and human capital constraints. This has slowed the pace of technological integration in financial oversight. Institutional oversight remains manual and semi-automated resulting in continued inefficiencies coupled with increased risk of financial misstatements.

1.2 Knowledge Gap

A significant research gap exists regarding the empirical evidence on audit committee effectiveness and artificial intelligence adoption in Zimbabwean State-Owned Institutions. The research intends to conduct a systematic review of empirical evidence. Most existing literature focuses on developed economies with advanced infrastructure creating a critical knowledge gap on the implementation of AI auditing in resource constrained settings. Specifically, the role of Zimbabwean audit committees in the transition to AI-driven auditing and its effectiveness.

1.3 Objectives of the Study

The objectives of this systematic review are to investigate the intersection of audit committees and AI adoption within Zimbabwean State-Owned Institutions. The study aims to:

- Assess the current adoption levels and institutional readiness for Artificial Intelligence integration in Zimbabwean public sector auditing.
- Evaluate how audit committees influence the oversight of emerging technologies.
- Identify barriers that hinder implementation of tech-enabled auditing.

LITERATURE REVIEW

Artificial intelligence is transforming the landscape of public and private sector auditing. Globally the integration of artificial intelligence into audit is giving new direction to the operation of audit committees (Mustapha et al.,2025). The trajectory of AI adoption in global auditing have slowly influenced the operations of Zimbabwean audit committees in both public and private organizations.

2.1 Theoretical Framework

This research study is rooted in three complementary theoretical perspectives to adopt modern technologies particularly artificial intelligence. Among the most applied theories are Agency theory, Institutional Theory and

the Technology Organization Environment Framework. The combination of these theories examines the relationship between audit committees' effectiveness, corporate governance structures, and AI adoption in Zimbabwean state-owned institutions.

2.2 Agency Theory

Agency theory addresses conflicts of interest that arise because of separation of ownership and control (Mustapha et al., 2025). The theory provides a fundamental basis for understanding the monitoring role of audit committees within corporate governance structure. Thakkar et al. (2025) states that Audit committees function as a key governance mechanism to mitigate risk by enforcing transparency, internal control and ensuring accountability in financial reporting. Agency theory is relevant to AI adoption by exacerbating information asymmetries' depending on how it is governed. Effective audit committees are essential in overseeing AI systems ensuring the output is dependable and not biased while aligned with stockholders' interests. Hassan et al. (2023) highlighted that audit committees play a vital role in guaranteeing the reliability and integrity of financial reporting.

2.3 Institutional Theory

Institutional theory is useful in explaining how external pressures influence organizational behavior and technology adoption. Anomah (2025) states that Institutional theory highlights coercive, normative, and mimetic forces that influence technology adoption in public sector settings. State-owned institutions operate within regulatory, political, and socioeconomic environments that shape their governance practices. According to Azemi (2021) public accountability drives the adoption of AI technologies in Auditing. In developing countries like Zimbabwe institutional pressures are constrained by limited infrastructure, policy uncertainty, and resource scarcity. The theory highlights the alignment of governance reform ensuring meaningful AI integration.

2.4 Technology Organization Environment (TOE) Framework

TOE framework assists in identifying the key factors that influence AI adoption from a technological perspective. These factors consist of system complexity, compatibility and data availability that determine AI integration into audit processes. Organizational factors also include audit committees' expertise and leadership support. Anomah (2025) states that the TOE framework offers a holistic structure for assessing institutional readiness for technology adoption. This study adopted TOE as a fundamental lens for its conceptual framework. Mustapha et al., (2025) confirms that TOE has been applied to evaluate how institutions prepare for digital transformation and integration of AI in the audit domain. TOE framework positions audit committee effectiveness as a critical organizational determinant in shaping technological innovation and implementation.

These theoretical perspectives present a comprehensive understanding of how governance mechanisms and audit committees influence the adoption and effectiveness of AI in Zimbabwean state-owned institutions. It is also highlighted that AI integration is not only technological but a governance challenge encompassing institutional pressure, organizational capacity, and oversight mechanisms.

2.5 Adoption levels and Institutional readiness in Zimbabwe public sector auditing

Empirical evidence by Munyepwa et al. (2025) reveal that AI adoption in Zimbabwe's public sector is marked with increasing awareness, however, implementation is still at its early stage. Their findings emphasized the stage of adoption without stating the structural and institutional constraints faced by the adoption progress.

Chingwaro et al. (2024) revealed a disparity on adoption of AI by banking sectors in Harare. They discovered that private banks had adopted the use of AI technologies like chatbots and the government banks have not implemented any fraud detection citing lack of government approval. The study attributes gap to regulatory restrictions, institutional inefficiencies, bureaucratic and limited capacity in public institutions.

The study by Chigutei (2026) empirical evidence revealed that local authorities have moderately adopted Risk-Based Auditing. Chigutei (2026) went on to argue that the integration of continuous auditing tools and data analytics remains minimal. The study highlights a technical gap but does not clearly explain why procedural reforms are introduced without corresponding technological advancement suggesting a partial approach in the public sector.

Munyepwa et al. (2025) state that digital systems such as SAP are in use in Zimbabwe, AI integration for advanced auditing and financial analytics is nonexistent. Their findings revealed that there is heavy reliance on manual and semi-digital systems in public sector being used for auditing. This study could also be limited by time, and This review may not capture the most recent developments in digital transformation initiatives. Munyepwa et al. (2025)'s results indicated that staff competence and top management are key predictors of AI adoption in financial reporting. The study pays limited attention to external influences like regulatory frameworks, infrastructure, and political dynamics.

2.6 Audit Committee Influence on Oversight of Emerging Technologies

Empirical evidence by Mbelwa & Munyangabi (2024) reveal that audit committee independence and objectivity enhance oversight effectiveness in the public sector. In addition, their findings support the importance of governance structures however, there could be some differences in institutional and regulatory environments since the study is based in Tanzania.

According to Soi et al. (2025), the audit committee's size, independence and frequency of meetings significantly influence the effectiveness of risk management and reduce asymmetry between management and stakeholders. Their study assumes that audit committees have access to information and technical expertise to interpret technological risk which is not the case with developing countries contexts.

Legodi & Coetzee (2025) argue that audit committees in Africa face significant challenges due to their limited understanding of the Fourth Industrial Revolution (FIR) technologies. Their study revealed a critical knowledge gap affecting the ability of committees to effectively oversee AI-driven processes. The study does not bring forth the recommendation to bridge this gap, and the argument is left diagnostic.

The report by KPMG (2025) and the EY Centre for Board Matters (2025) states that approximately 40% of the global board have increased audit committees' mandates including AI oversight. However, these findings may not apply to developing economies like Zimbabwe with limited institutional capacity and technical expertise.

2.7 Barriers Hindering Implementation of Tech-Enabled Auditing.

The empirical evidence by Munyepwa et al. (2025) identify weak digital infrastructure, high implementation cost, and erratic electricity supply as major barriers to AI adoption in Zimbabwe's public sector. Western AI audit models are incompatible with the data fragmented systems and unstable infrastructure experienced in developing countries. These studies, however, treat the stated challenges as external constraints without fully investigating policy and governance issues contributing to these conditions. Chigutei (2026) argues that political interference and improper reporting structures are key challenges affecting audit independence in adoption of AI in public sector. The study provides strong empirical evidence on governance weaknesses but does not explore technical solutions to mitigate these challenges.

According to Chingwaro et al. (2024), financial constraints limit the acquisition of AI tools coupled by lack of access to external credit lines. The study highlights funding challenges for software acquisition costs not looking at the broader financial implications like training, systems integration, and maintenance. Munyepwa et al. (2025) argues about skills shortage and brain drain as critical barriers to AI implementation in Zimbabwe public institutions. Their study revealed the limitation of data science and AI expertise resulted by migration of skilled professionals.

Chingwaro et al. (2024) empirical evidence argued that leadership in public institutions is hesitant to invest in AI due to perceptions of prohibitive cost and risks associated with the process. Leadership hesitance is also influenced by economic instability particularly in developing countries like Zimbabwe.

METHODOLOGY

The study adopted a systematic literature review method to investigate audit committee effectiveness and artificial intelligence adoption in Zimbabwe state owned institutions and outline directions for future research (Romeo & Lacko, 2025). This systematic literature review was conducted between February and May 2026 to collect evidence from previous studies on audit committees' effectiveness and AI adoption on Zimbabwean state-owned institutions. The review process was guided by the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) framework (Page et al., 2020). PRISMA was selected because of its comprehensive planning of the review process. The methodology ensures accuracy, replicability, and transparency from beginning to end (Romeo & Lacko, 2026). The systematic literature review follows PRISMA's steps, which includes, Identification, Screening, Eligibility, and Inclusion (Romeo & Lacko, (2025).

3.1 Selection of databases

The research was based on Scopus, and Google Scholar as the main sources of scholarly literature of the review. Scopus and Google Scholar have publication diversity, accessibility and they encompass most journal publishers and databases (Situmorang et al, 2025). Google Scholar is one of the largest scholarly sites indexing most peer-reviewed online academic journals (Manganda, 2026). Scopus indexes most peer-reviewed literature including journals and conference proceedings (Situmorang et al., 2025)

3.2 Identification

The study title guided the identification of keywords to isolate the relevant literature from Google Scholar and Scopus which was chosen for its extensiveness and relevance in social science (Romeo & Lacko, 2025).

3.3 Search Strategy

The research applied a structured search strategy which used keywords by the Boolean operation as follows; ("Artificial Intelligence" AND "audit committee"). ("AI adoption" AND "public sector auditing" AND "Zimbabwe"), ("AI adoption" AND "audit effectiveness").

These search terms were used across databases to improve coverage and relevance. The keywords were derived from the title Audit Committee Effectiveness and Artificial Intelligence Adoption in Zimbabwean State-Owned Institutions.

3.4 Screening

The identified records were reviewed during the screening stage, and 20 duplicate records were removed from the 101 initial records identified. 81 records were physically reviewed based on their titles and abstracts determining their relevance to the study objectives and title. Predefined criteria for inclusion and exclusion were used to screen the remaining articles. The exclusion criteria excluded studies which were not related to the topic, non-English publications, non-peer-reviewed articles, and papers that did not discuss the effectiveness of audit committees on AI adoption were excluded.

Two independent reviewers screened the articles to reduce bias. The disagreements were resolved through discussions and consultations were also made with the third reviewer. The remaining 55 articles were then considered for eligibility.

3.5 Eligibility

During this stage full-text articles were read and assessed in detail for relevance and methodological quality. Author and year, study design, sector for the study, area or country, sample size and findings were all reviewed for inclusion. Studies which did not have the mentioned characteristics were excluded. Studies were supposed to be from 2019 to 2026 and conducted in Zimbabwe focusing on public institutions. Studies which were inaccessible in full text format were also excluded. Reasons for exclusion were documented through the PRISMA flow chart to ensure transparency of the review process.

3.6 Inclusion

20 peer-reviewed published articles and academic indexed journals from Google Scholar and Scopus were deemed eligible for inclusion. 20 articles were selected as relevant from a pool of 101 articles extracted from the database. These articles were further examined for descriptive and thematic analysis.

3.7 Quality appraisal

The selected articles were subjected to quality appraisal based on the Mixed Method Appraisal Tool (MMAT) version 2018 by Hong et al. (2018). Table 4.3 presented the appraisal and assessment of the included 20 studies of this systematic review.

3.8 Thematic discussion

The study identified three core themes derived from the objectives of the article. The themes are AI adoption and readiness in Zimbabwe, audit committees' effectiveness, and barriers to AI implementation. The study presented a descriptive and thematic analysis to gain a qualitative understanding of the literature on audit committees' effectiveness and AI adoption on Zimbabwe state owned institutions.

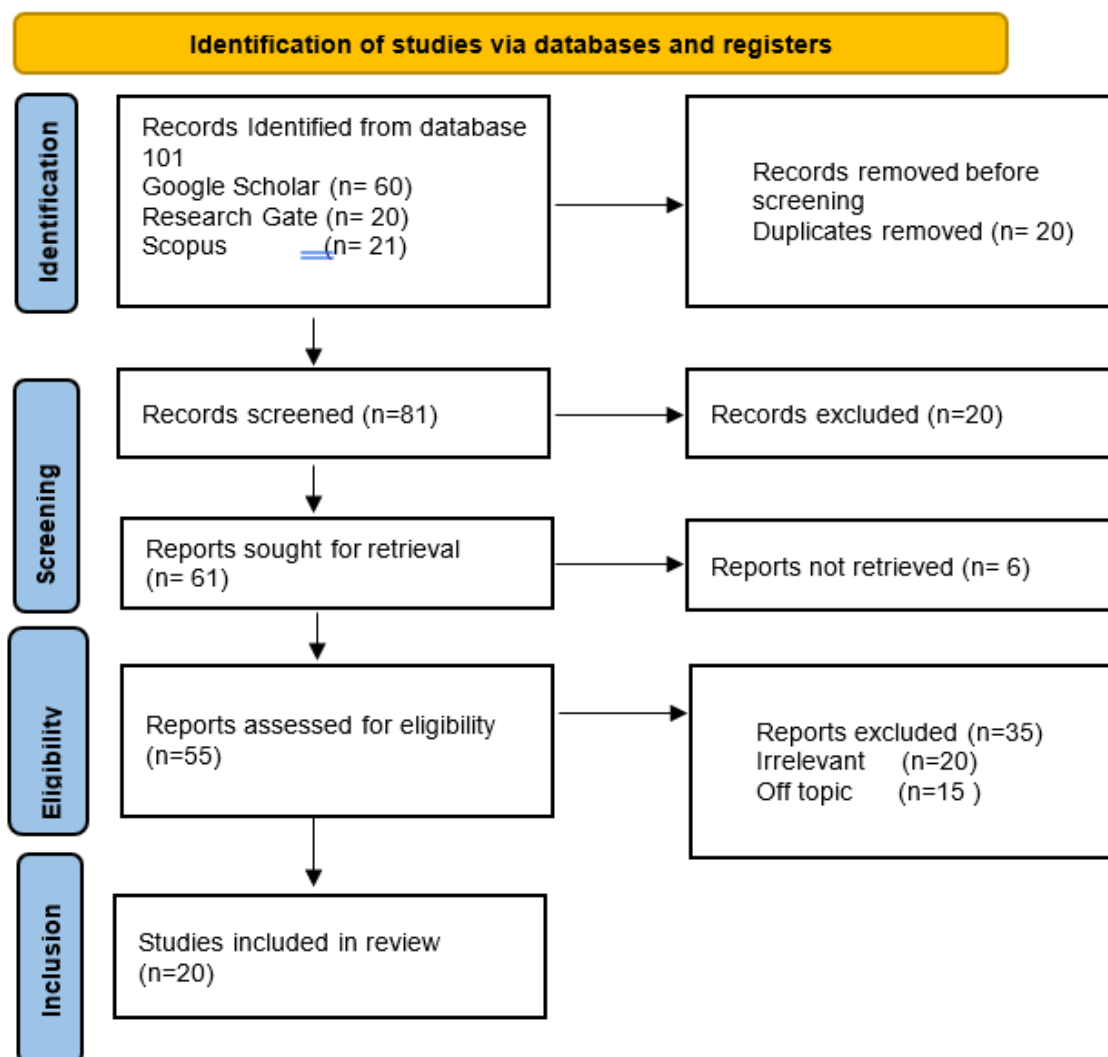
4. Results

This chapter presents the results of the systematic literature review investigating audit committee effectiveness and artificial intelligence adoption in Zimbabwean State-Owned institutions. A total of 20 Zimbabwe focused studies published between 2019 and 2026 met the inclusion criteria and were included in the synthesis. The chapter starts with the PRISMA study selection, followed by characteristics of included studies, methodological quality appraisal, and the thematic synthesis of the findings. The thematic section is organized by the study themes of the objectives which are AI adoption and readiness, audit committee effectiveness and barriers to implementation.

4.1 PRISMA flow chart diagram

Figure 1 presents the PRISMA 2020 flow diagram illustrating the study selection process. A total of 101 records were identified from Google Scholar, ResearchGate and Scopus. 20 duplicates were removed from the total identified records, 81 records were screened. 20 records were excluded during the title and abstract screening, this resulted in 61 reports sought for retrieval. 6 reports could not be retrieved leaving 55 full text articles assessed for eligibility. 35 articles were excluded because they were irrelevant to the study objectives (n=20) and off topic (n=15). Finally, 20 studies met the inclusion criteria and the were included in the systematic literature review.

Fig 1 PRISMA Flow chart



4.2 Characteristics of included studies

The characteristics of the 20 included Zimbabwean studies are summarized in the table 4.2. The studies were published between 2019 and 2026. 11 studies employed qualitative designs and sample sizes for primary studies range from 10 to 350 participants. 12 studies focused on state-owned enterprises and the table presents detailed information.

Table 4.2 Characteristics of included studies

Author & year	Town/Area	Study design	Sector	Sample size	Key Findings
1.Kundlande (2026)	Zimbabwe in general	Mixed method	Public sector accounting	Stakeholders (IT, Auditors)	AI adoption improves accuracy and audit trails but faces resistance.
2.Ndhlovu et al. (2026)	Zimbabwe in general	Mixed methods	Financial intelligence/ AML	225(210 surveys,15 interviews)	Forensic accounting techniques assist in identifying suspicious transactions
3.Shambirai (2020)	Zimbabwe national	Descriptive survey	Banking sector	120 bank employees	16 % of surveyed banks implemented AI based customer interaction tools (chatbots) indicating a low AI

					adoption despite broader digitalization
4.Simuka & Ndlovu (2025)	Zimbabwe selected Banks	Quantitative cross-sectional survey	Commercial Banking	318 Bank Employees	AI adoption enhances bank performance in fraud detection and cybersecurity
5.Jachi & Mandongwe (2019)	Zimbabwe, Mutare & Gweru	Quantitative & documentary review	Local Authorities	Audit Committee chairs and CAEs	Committee independence and meeting frequency are predictors of audit effectiveness
6.Sithole & Hahlani (2024)	Mwenezi district Masvingo	Interpretivist Case Study	Public Education sector	12 Participants	Effective audit committees provide guidance and oversight for IPSAS implementation in schools.
7.Dandazara & Chisunga (2026)	Harare/National	Qualitative desk research & Case study	Public Financial Management	Secondary data (2021-2022)	Big data analysis can revolutionize investigations by moving governance to proactive paradigm
8.Munyepwa et al. (2025)	Zimbabwe National	Mixed methods	Financial Reporting & Auditing	Professional, regulators & IT experts	AI holds transformative potential for auditing but faces prohibitive cost and skill shortage.
9.Tashu et al. (2025)	Zimbabwe (National)	Qualitative documentary	Revenue Management (ZIMRA)	Not specified (qualitative)	AI-driven models can precisely allocate tax revenue and detect systematic corruption
10.Mabhanda & Dzingirai (2026)	Gweru urban Midlands	Exploratory multiple Case study	SMEs sector	12 participants	AI generates new insights and streamlines processes to address challenges.
11.Mazikana (2023)	Harare (ZIMRA HQ)	Qualitative exploration	State Enterprises & Parastatals	52 Respondent directors and auditors	AI is critical for auditors in identifying and reducing fund appropriation in public institutions
12.Mheruka (2025)	Harare	Mixed methods (cross sectional)	Pharmaceutical Sector	52 experts (42 valid responses)	AI improves internal audit functions but face hyperinflation challenges
13.Thakkar et al. (2025)	Zimbabwe (Harare, Bulawayo)	Mixed research methods	Listed Companies	44 respondents	Listed firms must move from Excel to AI analytics like python
14.Mupambi et al. (2025)	Zimbabwe (All 10 provinces)	Mixed Methods	SME sector (Revenue Management)	370 participants	Forensic auditing using AI achieved 90% accuracy in detecting tax evasion vs 35% traditionally
15.Nemuramba & Tengeh (2025)	Zimbabwe (National)	Systematic review methodology	Public Finance	Review subset	AI audits are essential to bridge fiscal accountability gaps during national emergencies

16.Gobvu et al. (2026)	Zimbabwe (National)	Qualitative documental review	Records Management	62 documents	AI generated records provide standardization and reliability
nm 17.Chilunjika & Chilunjika (2024)	Zimbabwe (National)	Qualitative desktop review	Public health sector	Scholarly and policy data base	Digital health tools provide reliable audit trails which make it difficult to conceal corruption
18.Munyepwa et al.2025	Zimbabwe (urban and semi urban)	Mixed methods	Public & Private sector	120 questionnaire respondents, 15 interviews	AI adoption in initial stages, public sector lags, audit firms in support of AI integration.
19.Chigutei (2026)	Harare, Bindura Kadoma	Mixed method	Local Governance	96 participants 12 key qualitative interviews	AI auditing is adopted but hindered by political meddling, training, and resource shortages
20.Chingwaro et al. (2024)	Harare	Qualitative	Banking Sector	10 bank internal auditors and senior management	Parastatal banks do not use AI because they lack government permission. Barriers include excessive costs, skills shortage

4.3 Quality Appraisal based on the Mixed Method Appraisal Tool (MMAT) Version 2018

This study applied the Mixed Method Appraisal tool (MMAT) by Hong et al. (2019) to critically appraise and assess the quality of qualitative, quantitative, and mixed methods studies of this systematic review. Table 4.3 presents the appraisal and assessment of the included 20 studies of this systematic review.

Table 4.3 Quality appraisal and assessment for the 20 studies

Author, Year	Study type	Screening S1 S2	Quality findings	Overall Quality
1.Kundlande (2026)	Mixed methods	✓ ✓	Strong integration design Clear interpretation, divergence not clearly addressed	High
2.Ndhlovu et al. (2026)	Mixed method	✓ ✓	Excellent integration, sampling analysis, and handling of divergence	High
3.Munyepwa (2025)	Mixed methods	✓ ✓	Appropriate design, strong data collection, coherence, and clear interpretation	High
4.Simuka & Ndlovu (2025)	Qualitative	✓ ✓	Good sampling and measurement, nonresponsive bias unclear	Moderate-High
5.Mupambi et al. (2025)	Mixed methods	✓ ✓	Robust design and integration, divergence not fully addressed	High
6.Mheruka (2025)	Mixed methods	✓ ✓	Adequate integration, small sample limits, size	Moderate
7.Thakkar et al. (2025)	Mixed methods	✓ ✓	weak qualitative rigor, limited integration, and basic statistical analysis	Moderate-Low
8.Tashu et al. (2025)	Qualitative	✓ ✓	Comprehensive search, transparent methods, and clear synthesis	High
9.Nemuramba & Tengeh (2025)	Systematic review	✓ ✓	PRISMA -compliant with string synthesis and transparency	High

10.Mabhanda & Dzingirai (2026)	Qualitative	✓ ✓	Strong theoretical alignment, justified sample, and coherent findings	High
11.Chingwaro et al. (2024)	Qualitative	✓ ✓	Adequate data collection but limited analytical depth	Moderate-High
12.Sithole & Hahlani (2024)	Qualitative	✓ ✓	Convenience sampling limits rigor, analysis remains coherent	Moderate
13.Mazikana (2023)	Qualitative	✓ ✓	Some inconsistency in analysis, overall moderate rigor	Moderate
14.Chigutei (2026)	Mixed methods	✓ ✓	Limited methodological depth, exploratory	Low-Moderate
15.Shambirai (2020)	Qualitative	✓ ✓	Basic descriptive design, lacks strong validity checks	Moderate
16.Jachi & Mandongwe (2019)	Qualitative	✓ ✓	Appropriate regression analysis, unclear sample details	Moderate
17.Gobvu et al. (2026)	Qualitative review	✓ ✓	Well- structured framework with strong synthesis	High
18.Dandazara & Chisunga (2026)	Qualitative case/ review	✓ ✓	Strong cross case analysis, possible secondary data bias	Moderate - High
19.Munyepwa (2025)	Mixed methods	✓ ✓	Adequate integration, small sample limits	Moderate
20.Chilunjika & Chilunjika (2024)	Qualitative review	✓ ✓	Broad sources but limited methodological transparency	Moderate

4.3.1 Quality appraisal Summary

Quality rating	No. of studies	Percentage %	Key issue
High	9	45%	Robust design, integration, clear interpretation
Moderate -high	3	15%	Good sampling measurement/minor analytical gaps
Moderate	5	25%	Adequate design but limited sample size/rigor
Moderate- low	3	15%	Weak qualitative rigor
Total	20	100%	

60% of studies were rated Moderate-high to High quality, indicating that the evidence base is robust. 40% have moderate to low quality indicating that the evidence on the studies has some limitations.

4.4 Thematic discussion of the core findings

The study identified three core themes derived from the objectives and these themes are IA adoption and readiness in Zimbabwe, audit committees' effectiveness, and barriers to AI implementation.

4.4.1 AI adoption and readiness in Zimbabwe

This theme indicates that AI adoption in Zimbabwe is at its initial stage. AI is portrayed as a key economic driver of institutional transformation by the Zimbabwe National AI Strategy (2026-2030). Empirical evidence by Simuka & Ndlovu (2025), Munyepwa et al. (2025) and Singh et al. (2025) confirm that AI enhances audit efficiency, fraud detection, and accuracy in financial reporting.

Shambirai (2020) however, argues that there is a contradiction between policy ambition and the actual implementation in Zimbabwe where research highlighted that only 16% of the surveyed banks had implemented customer-based interaction tools (chatbots). This shows a weak organizational readiness in the banking sector.

Simuka & Ndlovu (2025) emphasized that implementation is still constrained by institutional capacity and readiness gaps.

4.4.2 Audit Committee Effectiveness

Empirical evidence agrees that audit committees strengthen governance, financial oversight, and accountability. Frequency of audit committee meetings, independence, and oversight of capacity of the committees are key determinants of effectiveness (Jachi & Mandongwe, 2019 and Legodi & Coetzee, 2025). Effective audit committees are evolving from traditional oversight bodies into strategic regulators of AI related systems.

Studies such as Mazikana (2023) and Sithole & Hahlani (2024) focus on traditional compliance and financial control roles of audit committees. Parker et al (2024) extends the audit committee roles to governance of AI systems. There is a transition from audit oversight to digitally governed oversight although it is not even across the institutions.

4.4.3 Barriers to AI implementation

AI adoption is limited by several structural and institutional barriers as highlighted by this theme. The researchers (Mutsviri & Hapanyengwi, 2025; Mangwanya, 2025; Jouiet & El Abbas, 2025) identified infrastructure deficiencies, prohibitive costs, and regulatory gaps as major constraints for AI implementation.

Semwayo (2026) argues that skills shortages and high implementation cost are major barriers. Gobvu et al. (2026) focuses on lack of standards and fragmented data on AI implementation. Mupambi et al. (2025) emphasized the need for financial investment for modernization and infrastructure. The empirical evidence revealed that barriers are sector specific and content dependent and not uniform.

4.4.4 Cross- Theme analysis

Overall findings of the articles included revealed that there is a consistent pattern of high AI potential but constrained implementation. Audit committees are positioned as key governance actors to emerging AI-driven systems. The thematic synthesis indicates that AI improves auditing, fraud detection, accountability, and financial governance in Zimbabwe. AI adoption remains uneven due to structural limitations, regulatory weaknesses, and capacity constraints.

DISCUSSION

The systematic literature review regarding audit committee effectiveness and adoption of AI adoption in Zimbabwean State-Owned institutions revealed that the topic has considerable attention in the past and is highly discussed in recent years. The review synthesized 20 Zimbabwe focused studies published between 2019 and 2026. The studies examined the intersection of audit committee effectiveness and AI adoption in state owned institutions.

The findings indicated that AI adoption in Zimbabwe's public sector is at its early stage. TOE framework implemented by the study coupled with empirical evidence revealed the limitations across technological, organizational, and environmental contexts. Some issues hinder implementation are fragmented data systems and weak digital infrastructure. The Study by Munyepwa et al. (2025) highlighted skills shortage, and brain drain as critical barriers of AI uptake. However, despite these constraints adoption of AI enhances audit efficiency, fraud detection, and financial reporting accuracy (Simuka & Ndlovu, 2025). Mupambi et al. (2025) revealed that AI achieved 90% accuracy compared to 35% accuracy in traditional systems. Shambirai (2020) reported that only 16% of surveyed banks had implemented AI based customer interaction tools revealing a substantial gap between Zimbabwe National AI Strategy (2026-2030 national policy) and actual implementation.

The agency theory in this study positions audit committees as a monitoring mechanism for reducing information asymmetry and agency costs between management and stakeholders. This review confirmed independence, frequency meetings, and oversight capacity as key determinants of effectiveness (Jachi & Mandongwe, (2019).

The role of audit committee has been revealed as evolving from compliance and financial control to governance of AI systems. Mazikana (2023) and Hahlani (2024) focused on conventional oversight roles while Parker et al. (2024) emphasized governance of AI related systems. Political interference and improper reporting structures have been viewed by Chigutei (2026) as compromising independence and weakening monitoring structure. This brings the view that while audit committees are positioned to govern the emerging systems, governance weaknesses constrain their effectiveness.

Institutional theory underpins the study on explaining how regulatory gaps, norms, and institutional pressure shape organizational behavior. The review identified infrastructure deficiencies, prohibitive costs, regulatory gaps, and skills shortages as major barriers to AI implementation. Gobvu et al. (2026) and Semwayo (2026) reported fragmented data and lack of standards, while Chigutei (2026) mentioned political meddling as barriers to AI implementation. These barriers are sector specific and they limit transferability of Western AI audit models to Zimbabwe state owned institutions.

The thematic synthesis of the study revealed a consistent pattern of high potential for AI to improve auditing, fraud detection, and accountability with constrained implementation due to technological and institutional factors. TOE framework brings about capacity constraints while agency theory highlights the monitoring role and limitations of audit committees, the institutional theory states how regulatory and political environments shapes adoption outcomes. Finally, the audit committees emerged as key governance actors to bridge the gap between AI potential and practice.

Limitation and future research

The systematic literature review is limited to Zimbabwe focused studies. This review does not capture developments beyond 2026. Future research should be focused on exploring practical frameworks for integrating AI governance into audit committee mandates. It should also assess the impact of AI adoption on financial misstatement reduction in resource constrained settings.

CONCLUSION

The review concludes that although AI offers considerable potential to improve audit quality, fraud detection, accountability, and financial governance in Zimbabwean state-owned institutions, adoption remains at an early stage. Significant barriers including weak digital infrastructure, skills shortages, political interference and financial constraints continue to limit implementation. Audit committees remain central governance mechanisms for overseeing technological innovation. However, their effectiveness depends on independence, technical competence and institutional support. Addressing technological and governance challenges is therefore essential for advancing AI-enabled auditing and strengthening public sector accountability in Zimbabwe.

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Authors contribution: The authors contributed to the conception and design of the study.

Transparency: The authors confirm that the manuscript is an honest, accurate and transparent account of the study, the study followed all ethical practices during writing.

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