



Evaluating the effectiveness of remote internal auditing in selected South African entities

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DECLARATION

I, **Sumarie Nel**, declare that “**Evaluation of the effectiveness of remote internal auditing in selected South African entities**” is my own work and that all the sources I have used or quoted have been indicated and acknowledged by means of a complete reference list. This dissertation has not previously been submitted by me or any other author to any other university.

Signature: *SNel*

Date: 30 July 2025

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ABSTRACT

The COVID-19 pandemic significantly reshaped internal audit practices, accelerating the transition from traditional on-site audits to remote modalities. This shift raised important questions about the effectiveness of remote internal auditing, particularly within the South African context, where empirical research remains limited. While internal audit functions are central to governance, risk management, and control, the factors influencing their effectiveness in remote settings, such as stakeholder perception, audit quality, communication, and management support, are not yet clearly defined or consistently assessed. To address this gap, the study draws on an adapted conceptual framework, which emphasises stakeholder expectations and the subjective evaluations of audit performance. The research is guided by the research onion model and adopts a positivist philosophy with a quantitative approach. Primary data was gathered through structured, self-administered questionnaires and supported by secondary document analysis. Findings indicate that remote internal auditing can be a credible, effective, and value-adding approach when underpinned by strong management involvement, clear communication, and reliable information and communication technology (ICT) infrastructure. Stakeholders reported benefits such as enhanced efficiency, flexibility, and decision-making support. Audit quality remained high, although challenges relating to ICT readiness and scope limitations persist. Communication emerged as a strategic enabler, though follow-up mechanisms require improvement. Management support was found to be essential but inconsistently applied. The study proposes a comprehensive framework to enhance remote internal audit effectiveness, advocating for hybrid audit models, greater stakeholder engagement, and targeted investment in communication and digital capabilities. It concludes that remote internal auditing is not merely a temporary adaptation, but a sustainable and forward-looking model. By strengthening digital infrastructure, stakeholder alignment, and quality assurance, South African organisations can enhance the impact and resilience of their internal audit functions in an increasingly digital governance environment.

Keywords

COVID-19 pandemic, effectiveness, face to face, internal audit function, management, remote internal audit, roles and responsibilities, stakeholders, value adding

OPSOMMING

Die COVID-19-pandemie het interne ouditspraktyke drasties verander en die oorgang van tradisionele oudits na afstandbeheerde oudits versnel. Hierdie verskuiwing het belangrike vrae laat ontstaan oor die doeltreffendheid van afstandbeheerde interne oudits, veral binne die Suid-Afrikaanse konteks, waar empiriese navorsing nog beperk is. Terwyl interne ouditfunksies sentraal staan tot bestuurs-, risikobestuurs- en beheerstelsels, is die faktore wat hul doeltreffendheid in 'n afstandomgewing beïnvloed, soos aandeelhouerpersepsie, ouditgehalte, kommunikasie en bestuurssteun, nog nie duidelik gedefinieer of konsekwent beoordeel nie. Om hierdie leemte aan te spreek, maak die studie staat op 'n konseptuele raamwerk, aangepas vanaf Albrecht *et al.* (1988), wat klem lê op aandeelhouerverwagtinge en subjektiewe evaluasies van ouditprestasie. Die navorsing word gelei deur Saunders *et al.* (2009) se navorsings-uie-model en volg 'n positivistiese filosofie met 'n kwantitatiewe benadering. Primêre data is ingesamel deur gestruktureerde, self-gedadministreerde vraelyste, en dit word ondersteun deur sekondêre dokumentanalise. Die bevindinge dui daarop dat afstandbeheerde oudit 'n geloofwaardige, doeltreffende en waarde-toevoegende benadering kan wees wanneer dit onderlê word deur sterk bestuursbetrokkenheid, duidelike kommunikasie, en betroubare inligting en kommunikasie tegnologie infrastruktuur. Aandeelhouders het voordele soos verbeterde doeltreffendheid, buigsaamheid en ondersteuning in besluitneming gerapporteer. Ouditgehalte het hoog gebly, alhoewel uitdagings wat verband hou met inligting en kommunikasie tegnologie infrastruktuur-gereedheid en beperkinge in omvang steeds bestaan. Kommunikasie het na vore getree as 'n strategiese instaatsteller, alhoewel opvolgmeganismes verbetering verg. Bestuurssteun is as noodsaaklik gevind, maar word nog nie konsekwent toegepas nie. Die studie stel 'n omvattende raamwerk voor om die doeltreffendheid van afstandbeheerde oudits te verbeter deur te pleit vir hibriede ouditmodelle, groter aandeelhouerbetrokkenheid en gerigte beleggings in kommunikasie en digitale vermoëns. Die slothoofstuk is dat afstandbeheerde oudits nie bloot 'n tydelike aanpassing is nie, maar 'n volhoubare en vooruitdenkende model. Deur digitale infrastruktuur, aandeelhouerinsluiting en gehalteversekering te versterk, kan Suid-Afrikaanse organisasies die impak en veerkragtigheid van hul interne ouditfunksies in 'n toenemend digitale bestuursomgewing versterk.

Sleuteltermes

Afstandbeheerde interne oudit, belanghebbendes, bestuur, rolle en verantwoordelikhede COVID-19-pandemie, doeltreffendheid.interne ouditfunksie, gesig-tot-gesig interne oudit, waarde-toevoegend

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LIST OF ABBREVIATIONS

ACCA	Association of Chartered Certified Accountants
CEO	Chief Executive Officer
CFO	Chief Financial Officer
EY	Ernst & Young
IAASB	International Auditing and Assurance Standards Board
ICT	Information Communication Technology
IFAC	International Federation of Accountants
IPPF	International Professional Practices Framework
ISO	International Organization for Standardization
ISPIIA	International Standards for the Professional Practice of Internal Auditing
IT	Information Technology
KPI	Key Performance Indicator
M	Mean
NERSA	National Energy Regulator of South Africa
NWU	North-West University
OECD	Organisation for Economic Co-operation and Development
SOP	Standard Operating Procedure
SD	Standard Deviation
SPSS	Statistical Package for Social Science
The IIA	The Institute of Internal Auditors
QAIP	Quality Assurance Improvement Programme

1 CHAPTER 1: INTRODUCTION TO THE STUDY

1.1 Introduction

The outbreak of the COVID-19 pandemic in early 2020 forced organisations worldwide to radically transform their operational models (Bick, Blandin & Mertens, 2020). In response to widespread disruptions, knowledge-intensive roles rapidly transitioned to remote work as travel bans and restrictions on face-to-face interactions took hold (Brynjolfsson, Horton, , Ozimek, Rock, Sharma, & TuYe, 2020). The internal audit function was no exception. Internal auditors had to adapt quickly – shifting from traditional on-site audits to remote methodologies (Eulerich, Wagener & Wood, 2021).

The abrupt transition caused by the COVID-19 pandemic fundamentally disrupted conventional audit operations, rendering in-person audit procedures largely impractical. Consequently, many internal audit functions are adopting remote auditing approaches, leveraging information and communication technologies (ICT), digital platforms, and data analytics to conduct audit activities from locations separate from the auditees. Contemporary literature describes remote internal auditing as encompassing the evaluation of internal controls, the assessment of financial and operational risks, the collection and analysis of electronic audit evidence, and continuous engagement with auditees through virtual communication platforms (Eulerich, Wagener & Wood, 2022; Lorentzon, Fotoh & Mugwira, 2023).

Although the transition initially occurred rapidly, internal auditors are continuing to navigate challenges associated with technology readiness, communication effectiveness, and assurance quality in remote environments (Dumayas, 2021; (Dumayas, 2021; Alqudah, Amran, Hassan, Lutfi, Alessa, Alrawad & Almaiah, 2023). Remote and hybrid work models are now becoming embedded across industries, positioning remote auditing not as a temporary response but as a sustainable audit delivery model aligned with modern organisational practices.

When remote audits are being carefully planned and supported by robust communication structures, internal audit functions are continuing to provide strategic value to management and governance structures (El & Daoud, 2020; Eulerich et al., 2022). Recent studies emphasise that the value added by internal auditing is closely linked to its effectiveness, particularly in remote and technology-enabled contexts (Lenz, Sarens & Jeppesen, 2018; Alqudah et al., 2023). In this study, internal audit effectiveness is understood as the extent to which the internal audit function is achieving its objectives and meeting stakeholder expectations through timely, relevant, and value-adding assurance in a remote auditing environment. This research is motivated by the

current uncertainty surrounding the effectiveness and added value of remote internal auditing. The study seeks to address a clear gap in the literature on this increasingly relevant and globally significant topic.

1.2 Problem statement

Despite the rapid acceleration of remote working practices during the COVID-19 pandemic, internal audit methodologies have not yet been fully developed or adapted for sustained use in long-term remote or hybrid environments. Existing literature largely treats remote internal auditing as a temporary or reactive response to the pandemic, offering limited empirical evidence on its effectiveness, sustainability, and ability to meet stakeholder expectations in a post-pandemic context (Eulerich, Wagener & Wood, 2022; Lorentzon, Fotoh & Mugwira, 2023). The absence of standardised, evidence-based guidance raises concerns that internal audit functions may struggle to deliver consistent assurance, maintain stakeholder confidence, and demonstrate strategic value when operating remotely (Lenz, Sarens & Jeppesen, 2018; Alqudah et al., 2023). This challenge is particularly evident in the South African context, where empirical research on remote internal auditing remains limited. As remote and hybrid audit models become embedded in organisational practice, there is a clear need for empirical investigation into the effectiveness of remote internal auditing and the extent to which it aligns with stakeholder expectations and organisational assurance needs.

1.3 Research objectives

The primary research objective (PO) of this study was:

PO1: To assess the effectiveness of remote internal auditing and to formulate recommendations for improvement.

The following secondary research objectives (SOs) were established to assess the effectiveness of the internal audit working from home:

SO1: To conceptualise internal audit effectiveness and value addition within the context of remote internal auditing.

SO2: To identify and test the factors that significantly influence internal audit effectiveness in a remote auditing environment.

SO3: To test whether communication, stakeholder perception, management support and quality effectiveness mediates the relationship between remote internal auditing and internal audit effectiveness.

SO4: To examine the relationship between remote internal auditing and stakeholders' assurance expectations.

SO5: To formulate evidence-based recommendations and methodology for improving remote internal auditing practices to enhance audit effectiveness and value addition.

1.4 Research questions

The research study aimed to answer the following research questions:

1. How are internal audit effectiveness and value addition conceptualised in the context of remote internal auditing?
2. Which factors significantly influence internal audit effectiveness in a remote auditing environment?
3. Does communication, stakeholder perception, management support and quality effectiveness mediate the relationship between remote internal auditing and internal audit effectiveness?
4. To what extent does remote internal auditing meet stakeholders' assurance expectations?
5. What evidence-based recommendations can be proposed to enhance the effectiveness and value-adding role of remote internal auditing?

To address the complexity of remote internal auditing, this study adopts an explanatory approach by examining both the mechanisms and contextual conditions that influence audit effectiveness. Remote internal audit quality is treated as the key explanatory variable, while stakeholder perception is examined as the primary outcome of audit effectiveness. Communication effectiveness is specified as a mediating mechanism through which audit quality translates into stakeholder perceptions, and management support and ICT infrastructure are modelled as moderating variables that condition the strength of these relationships. An integrated moderated mediation model is therefore proposed, allowing the study to test the direct effect of audit quality on stakeholder perception, the indirect effect through communication, and the conditional influence of organisational support and technology. This approach moves beyond descriptive assessment, providing a theoretically grounded and empirically testable framework to explain how and under what conditions remote internal auditing achieves effectiveness.

1.5 Hypothesis

A hypothesis is a proposed explanation of a phenomenon that must be tested through research to determine whether it is true or false. It is a statement that has been provisionally accepted by the researcher (Shields, 1998).

The following hypotheses were formulated for this study:

Hypothesis 1 (H1): There is a positive correlation between remote auditing and the effectiveness of internal auditing

The COVID-19 pandemic forced a rapid transition from traditional on-site internal audits to remote auditing methodologies (Eulerich, Wagener & Wood, 2022; Dumayas, 2021). While some studies suggest that remote auditing can maintain or even enhance certain aspects of audit effectiveness—such as timeliness and digital evidence management—others highlight challenges, including limited interaction with auditees and reduced contextual understanding (Teeter et al., 2010; Brynjolfsson et al., 2020). These mixed findings indicate that the impact of remote auditing on internal audit effectiveness is not fully understood. Accordingly, this hypothesis is proposed to empirically test whether remote auditing practices influence overall internal audit effectiveness in the South African context.

Hypothesis 2 (H2): There is a positive relationship between the effectiveness of the internal audit function and stakeholders' perceptions of the timeliness, relevance, and usefulness of audit assurance

Stakeholder theory posits that the effectiveness of an organisational function is ultimately judged by its ability to meet stakeholder needs and expectations (Freeman, 1984). Internal audit effectiveness is often evaluated by the extent to which audit outputs provide reliable, timely, and relevant assurance to key stakeholders (Mihret & Yismaw, 2007; Pule, 2014). Literature indicates that audit reports that are unclear, delayed, or not aligned with stakeholder priorities fail to influence decision-making, undermining perceived effectiveness. Therefore, testing whether internal audit provides stakeholders with the assurance they require is central to understanding audit effectiveness in remote settings.

Hypothesis 3 (H3): 3. There is a positive correlation between greater support from top management, effective communication, high internal audit quality, and the ability to meet stakeholder expectations will be related to increased audit effectiveness.

Contingency theory suggests that organisational effectiveness depends on alignment between functions and contextual factors (Donaldson, 2001). Empirical research shows that management support, clear communication, and high-quality audit processes are key determinants of audit effectiveness (Shields, 1998; Mihret & Yismaw, 2007; Dumayas, 2021). Communication effectiveness mediates the relationship between audit quality and stakeholder perception (Shannon & Weaver, 1949), while top management support and robust ICT infrastructure

moderate these relationships by enabling engagement with audit findings (Davis, 1989; Institute of Chartered Accountants in England and Wales, 2020). This integrated perspective supports a moderated mediation model where contextual and procedural factors jointly influence perceived audit effectiveness.

These hypotheses are closely related to the title of this study, as well as to the research questions and objectives outlined earlier.

1.6 Research method

This study adopted a two-phase research approach to achieve the stated research objectives. The first phase involved a comprehensive literature review, aimed at exploring existing theories, frameworks, and findings related to internal audit effectiveness, value creation, stakeholder expectations, and remote audit practices. This provided a theoretical foundation and contextual background for the study.

The second phase comprised an empirical study, during which primary data was collected and analysed to evaluate the effectiveness of remote internal auditing in selected South African entities. The empirical phase was designed to test the research hypotheses, answer the research questions, and generate practical recommendations for enhancing the internal audit function in a remote working environment.

Together, these two phases ensured a robust and balanced approach, combining theoretical insights with practical, real-world evidence.

1.7 Literature review

The primary purpose of the literature review is to establish a conceptual and theoretical foundation for the study by exploring when and how and under what conditions internal audit activity is perceived to function effectively. Internal audit effectiveness has been widely explored in both academic and professional literature, with studies emphasising the importance of audit quality, stakeholder satisfaction, and organisational support in shaping perceived effectiveness (Mihret & Yismaw, 2007; Pule, 2014; Shields, 1998). The review began by examining the concept of remote internal auditing, commonly referred to as the 'new normal', which emerged in response to the COVID-19 pandemic (Eulerich, Wagener & Wood, 2022; Brynjolfsson, Horton & Ozimek, 2020; Bick, Blandin & Mertens, 2020). Research indicates that remote auditing offers benefits such as increased efficiency, flexibility, and reliance on digital evidence, while also presenting challenges related to communication, engagement with auditees, and technology adoption (Dumayas, 2021;

Teeter, Holder & Johnson, 2010). Next, the review explores the roles and responsibilities that define the internal audit function, highlighting its role in providing assurance, enhancing governance, and adding value to stakeholders (Institute of Internal Auditors, 2017; Mihret & Yismaw, 2007). Within this context, audit effectiveness is influenced not only by technical competence but also by the ability to meet stakeholder expectations, communicate findings effectively, and receive adequate support from top management (Freeman, 1984; Donaldson, 2001; Shannon & Weaver, 1949).

Finally, the literature review identifies key determinants of remote internal audit effectiveness, including audit quality, communication effectiveness, management support, and ICT infrastructure, and synthesises empirical evidence on how these factors interact in remote and hybrid audit environments (Eulerich et al., 2022; Wardhani & Rochayatun, 2024; Institute of Chartered Accountants in England and Wales, 2020). By critically examining these studies, the review highlights gaps in knowledge, particularly in the South African context, where limited empirical research exists on the long-term sustainability and effectiveness of remote internal audit practices. This synthesis provides a foundation for developing an integrated conceptual model and guiding the empirical investigation in this study.

1.8 Empirical study

This study adopted a quantitative research design, employing a structured questionnaire based on a five-point Likert scale, where 1 indicates 'strongly disagree' and 5 indicates 'strongly agree'. The questionnaire was designed to capture participants' perceptions across key dimensions relevant to the effectiveness of remote internal auditing, in alignment with the study's research objectives and hypotheses.

The target population consisted of stakeholders directly involved with the internal audit function at the National Energy Regulator of South Africa (NERSA), as well as personnel from four co-sourced internal audit firms, namely MMM Advisory Services, Samba Solutions (Pty) Ltd, SAB&T Chartered Accountants Inc., and SNG Grant Thornton.

These firms are contracted to provide internal audit services to NERSA and collaborate with the internal audit team. The researcher, a practising internal auditor at NERSA, has established professional relationships with both internal stakeholders and co-sourced audit partners, providing direct access to their contact information and facilitating effective data collection.

Responses were captured, coded, and analysed using the Statistical Package for the Social Sciences (SPSS). The statistical analysis provided insights into trends, correlations, and patterns,

which formed the basis for drawing conclusions and formulating evidence-based recommendations to improve the effectiveness of remote internal auditing.

1.9 Expected contribution

Given the widespread adoption of remote auditing and the limited research available on this emerging phenomenon, this study aims to serve as a valuable reference for internal audit functions and internal audit stakeholders seeking deeper insights into the effectiveness of internal auditing in a hybrid work environment. While remote auditing became a prevalent response to the COVID-19 pandemic, much of the existing literature focuses on the transitional experience of moving audit work online or the immediate challenges faced (Eulerich, Wagener & Wood, 2022; Jarva & Zeitler, 2021). Literature reviews on remote audit implementation during COVID-19 similarly emphasise pandemic-driven adaptations rather than strategic, long-term frameworks for audit practice (Wardhani & Rochayatun, 2024). Professional reports also document remote and hybrid audit work as a response to pandemic disruptions, noting increased use of technology and changes in audit team arrangements, but they stop short of developing sustained methodological models (Institute of Internal Auditors, 2022). These sources collectively highlight a research gap regarding the post-pandemic impact and sustainability of remote internal auditing practices, particularly in empirical contexts such as South Africa.

This thesis is seeking to evaluate stakeholder expectations of the internal audit function in relation to the services currently being delivered. Where deficiencies in effectiveness are being identified, the study is proposing practical, evidence-based recommendations to improve the internal audit function's capacity to add value. Additionally, it is assisting internal auditors in gaining a deeper understanding of the challenges, changes, and adaptations brought about by the shift to remote auditing. These insights are equipping auditors with the knowledge required to meet stakeholder expectations and perform their duties more effectively. By identifying existing gaps in processes and methodologies, the study will propose improvements to help internal audit functions maintain relevance and deliver high-quality assurance services in remote or hybrid auditing contexts. Importantly, this research addresses a critical knowledge gap in the South African context, where empirical studies on the effectiveness of remote internal audit activities remain scarce. The findings are expected to provide practical guidance for auditors, enhancing methodological rigor, strengthening audit effectiveness, and better demonstrating the value of internal audit to key stakeholders. Finally, the study will contribute to the body of academic literature by providing a foundation for future research in this field and related areas. Given the rapid evolution of audit practices, a study of this nature is both necessary and timely.

1.10 Chapter outline

This dissertation is structured into five chapters:

Chapter 1: This chapter provides an overview of the research, including the background of the study, problem statement, research aim, objectives, research questions, and the significance of the study.

Chapter 2: This chapter critically reviews relevant literature from academic journals and International Standards for the Professional Practice of Internal Auditing. It analyses the perspectives of various authors and identifies gaps in the existing body of knowledge.

Chapter 3: This chapter outlines the research approach and methodology adopted to address the research questions and the problem statement. It discusses the research design, population and sample size, data collection methods, and analytical techniques.

Chapter 4: This chapter presents the analysis and interpretation of the data collected via questionnaires. The results are systematically reported and linked to the research objectives.

Chapter 5: This final chapter summarises the study's key findings, discusses limitations, and offers recommendations for practice and future research.

2 CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter presents a systematic review that encompasses both theoretical perspectives and empirical findings from previous studies on remote internal auditing. It includes an analysis of research that specifically examines the effectiveness of remote internal audits. Given the study's focus on evaluating the effectiveness of remote internal auditing within South African entities in the post-COVID-19 period (following the global pandemic declared by WHO between March 2020 and December 2021) (WHO, 2020; Brynjolfsson, Horton & Ozimek, 2020; Eulerich, Wagener & Wood, 2022), it is essential to review the relevant literature produced during and after the pandemic. This foundational chapter establishes the theoretical and empirical groundwork necessary to address the study's objectives.

Chapter 2 is structured as follows:

- Section 2.1 introduces the literature review and outlines its scope.
- Section 2.2 explores the background and evolution of the internal audit profession.
- Section 2.3 defines the internal audit function and its core responsibilities.
- Section 2.4 elaborates on the role and responsibilities of the remote internal auditor.
- Section 2.5 examines internal audit effectiveness and the key determinants that influence it.
- Section 2.6 describes the various aspects of the conceptual framework.
- Section 2.7 theoretical review
- Section 2.8 discusses the transformative impact of global changes on audit practices.
- Section 2.9 provides a comparative analysis between traditional and remote audit methodologies.
- Section 2.10 outlines the Global Internal Audit Standards, highlighting the nature and scope of internal audit work.
- Section 2.11 presents insights into the risk-based audit approach.
- Section 2.12 describes the phases involved in conducting remote internal audits.
- Section 2.13 reviews the advantages and disadvantages of remote audit practices.
- Section 2.14 concludes with a discussion on the future outlook of the internal audit function.
- Finally, Section 2.15 summarises the information presented in the chapter.

2.2 Background and development of internal audits

This section provides an overview of the evolution of internal audit from its traditional origins to its current role as a value-adding function within organisations. The demand for both external and internal auditing has historically been driven by the necessity for independent verification to prevent errors, fraud, and asset misappropriation.

In today's dynamic corporate landscape, the role of the internal auditor has undergone significant transformation (Agaba, 2024). Traditionally, internal auditors focused primarily on ensuring compliance and financial accuracy by verifying financial statements, maintaining regulatory adherence, and conducting routine process audits. Their activities were largely retrospective, relying on manual procedures and basic tools to detect discrepancies and non-compliance after the fact.

However, the role of the internal auditor is rapidly evolving towards a broader, more strategic orientation. Modern internal auditors now actively engage in risk management, provide strategic advisory services, and contribute to operational efficiency improvements, thereby delivering value-added services that support organisational success and resilience (Agaba, 2024).

With the continuous advancement of technology reshaping the business environment, future internal auditors are required to develop sophisticated skills in data analytics, cybersecurity, and emerging technologies such as artificial intelligence and blockchain. Their approach is increasingly dynamic and proactive, involving continuous auditing and real-time monitoring to anticipate and mitigate risks before they materialise (Agaba, 2024).

Understanding this historical context is essential for appreciating the contemporary definition and mission of internal audit. The following section will explore these aspects in greater detail.

2.3 Defining the internal audit function

The Institute of Internal Auditors (IIA, 2017a), as the global standard-setting body for the internal audit profession, articulates the mission of internal audit as enhancing and safeguarding organisational value through the provision of risk-based, independent assurance, advisory services, and insight. This mission is consistent with the IIA's broader conceptualisation of internal audit as an independent and objective function that supports organisations in achieving their objectives by applying a systematic and disciplined approach to the evaluation and improvement of risk management, internal control, and governance processes (IIA, 2020).

Central to internal auditing is the concept of value addition. As Ackers (2011) explains, internal audit contributes value by delivering independent evaluations of organisational operations and controls.

This function ensures the accuracy and reliability of information, identifies and mitigates enterprise risks, supports regulatory compliance, optimises resource utilisation, and ultimately aids in achieving organisational objectives.

The IIA (2017b) further emphasises that internal audit enhances value through actionable recommendations that increase the likelihood of reaching organisational goals, identify opportunities for operational improvements, and reduce risk exposure via assurance and advisory services. Consequently, internal audit plays a critical role across three primary domains: governance processes, risk management, and controls. These areas will be elaborated in detail in Table 2.1 in the following section.

2.4 The role of remote internal audits

The primary function of internal auditing remains to strengthen governance, risk management, and control processes, while providing assurance that organisational objectives are achieved effectively. With the shift to remote auditing, these responsibilities are carried out in a virtual environment, leveraging information and communication technologies (ICT) to monitor, evaluate, and improve organisational processes (Eulerich, Wagener & Wood, 2022; Teeter, Holder & Johnson, 2010).

In a remote context, internal auditors continue to focus on:

- Governance processes: The board of directors achieves organisational objectives through oversight and direction, while auditors assess governance mechanisms virtually through digital documentation, online meetings, and remote control testing.
- Risk management: Management identifies and mitigates risks using remote reporting tools, dashboards, and virtual risk assessments, with auditors evaluating the adequacy of these measures from a distance.
- Control processes: Internal auditors test and review controls remotely, using data analytics, electronic workflows, and automated monitoring systems to ensure risks are reduced to acceptable levels.

The chief audit executive provides opinions on the effectiveness of internal control systems to the audit committee, similar to traditional audits, but now relying heavily on remote evidence collection and virtual engagement (Mizdraković, V., Kljajić, M. & Zekić, BH. Finiz, 2021). Remote auditing also requires auditors to adapt communication strategies to ensure that findings, recommendations, and assurance are clearly conveyed to stakeholders despite the lack of in-person interaction (Dumayas, 2021).

The shift to remote internal audits does not diminish the core responsibilities of auditors; instead, it

adds layers of digital coordination, remote monitoring, and technological facilitation. Remote auditors must maintain audit quality, identify risks, evaluate controls, and provide actionable recommendations, while using ICT to enable effective stakeholder engagement (Wardhani and Rochayatun, 2024; Institute of Internal Auditors, 2022).

This is echoed by Partiba and Gajula (2018), who note that the internal audit function delivers essential information, fulfilling a vital role within organisations. Serag and Daoud (2021) further discuss the roles of remote internal audit activities, highlighting that these functions now encompass digital evidence collection, virtual reporting, and online communication with auditees. The most important roles that remote internal audit activity can play are presented in Table 2.1.

Table 2.1: The roles of remote internal audit activity

Area of Interest	Roles of Remote Internal Audit Activity
Internal control	- Internal audit should assess the changes, both temporary and permanent, in the organisation's control environment, with a specific focus on automated business controls. - Because of more flexible working arrangements and greater access to systems that assist with organisational recovery, user access controls may be compromised, and conflicts of interest may arise. Internal audit should monitor the controls in place. - Internal audit should assess the design and implementation of new or amended controls resulting from a changing work environment.
Risk management	- Many organisations are facing new risks and challenges. Internal audit should have an ongoing risk assessment process to continue meeting its responsibilities and should adopt more dynamic risk assessment methodologies. - Emerging risk areas need wider coverage. Internal audit should prioritise risks and regularly review and update the audit plan to reflect the emerging risks and the increasing needs of management. - Internal audit should update the risk assessment process, including the fraud risk assessment, review and assess changes within the organisation, and advise on changes to the risk assessment process. - Internal audit should update documentation, including risk registers, and update the internal audit plan and internal audit schedule to reflect changes to the organisation and the control environment.

Area of Interest	Roles of Remote Internal Audit Activity
Governance	- Internal audit should connect with the audit committee and key stakeholders to determine their needs, define elevated risks, and recommend appropriate responses. - Internal audit should help manage regulator expectations by coordinating with the appropriate stakeholders. - Internal audit should discuss urgent findings with the audit committee and focus on the greatest risks. - Internal audit should collaborate with other relevant stakeholders, such as the external auditor (who may rely on internal audit work) and regulators to determine any necessary changes in the internal audit plan and risk coverage.
Fraud risk	As processes are changed or adapted to accommodate remote working or other operational changes, internal audit should review key processes for fraud risk and identify any unmitigated gaps.
Business continuity planning and crises management	- Internal audit should support the business during the implementation of business continuity and crisis management plans. - Internal audit should have representation on all crisis management teams. The experience, tools, and views of the internal audit activity may be invaluable in developing such plans. - Internal audit should evaluate the effectiveness of the continuity plan, how the enterprise responds to the outbreak, and whether there is a need to adjust it. - Internal audit should assess the organisation's responses and provide assurance that they are in line with good practice and cover all key risk areas. - Internal audit can support other activities of the firm by leveraging the diverse skills of the internal audit team, such as data analytics, project management, financial expertise, and in-depth knowledge of enterprise systems and operations. - Internal audit should refocus and reprioritise scope areas in line with crisis response. - Internal audit should identify and evaluate the organisational processes that are under the most stress during crisis situations. - Internal audit should conduct a post-crisis review and reflect on how the organisation responded and provide recommendations for improving crisis management procedures.

Area of Interest	Roles of Remote Internal Audit Activity
Cybersecurity	- Companies may face potential increased vulnerability to cyberattacks due to remote working environments, such as greater susceptibility to phishing and malware. As more transactions move online, internal audit should consider the impact to data security risk. - Internal audit should assess the sufficiency and effectiveness of remote access controls. - Internal audit should provide recommendations about raising awareness and bolstering threat detection and third-party security plans to respond to cyber security risks.

Source: Serag & Daoud, (2021)

Table 2.1 illustrates the expanded role of the internal audit function in internal control, governance, and risk management. The objective of the internal audit function now includes evaluating emerging risks associated with remote auditing, such as cybersecurity threats, business continuity challenges, and fraud risks. Internal audit demonstrates its effectiveness by helping organisations adapt to continuous changes and technological advancements, thereby enhancing performance, streamlining operations, and supporting the achievement of strategic objectives. The study's focus on the effectiveness of internal audit is examined in greater detail in the following section.

2.5 Internal audit effectiveness

The COVID-19 pandemic has heightened interest in the role and effectiveness of internal audit functions, particularly in the evolving landscape of remote auditing. Despite the critical role that internal audit plays within internal control systems, the effectiveness of remote internal auditing remains uncertain, with limited research available, especially within the South African context (Lenz, Sarens & Jeppesen, 2018).

While earlier studies highlighted the absence of consensus regarding the determinants and measurement of internal audit effectiveness (Alzeban & Gwilliam, 2014; Endaya & Hanefah, 2013), recent literature suggests that this lack of consensus persists, especially in light of technological disruption and the shift towards remote and hybrid audit models following COVID-19 (Alqudah, Amran, Hassan, Lutfi, Alessa, Alrawad, & Almaiah, 2023; Ashfaq, Rehman, Haq & Usman., 2021; Eulerich & Kalinichenko, 2023).

Commonly examined factors influencing internal audit effectiveness continue to include independence, audit function size, auditor competence and quality, relationships with audit committees and external auditors, senior management support, and outsourcing; however, their relative importance and interaction in remote auditing environments remain inconclusive (Badara &

Saidin, 2013; Alqudah et al., 2023; Oussii & Boulila Taktak, 2018). Internal audit contributes to organisational success by systematically evaluating the entity's risk management, control, and governance processes, and by providing recommendations to enhance their effectiveness (Daniela & Attila, 2013). For these recommendations to have a significant impact, management commitment and adequate resource allocation are crucial (Oussii & Boulila, 2020).

The importance of internal audit effectiveness is highlighted by corporate governance failures, such as those at Enron and Lehman Brothers, which underscored the critical need for robust oversight and internal controls (Carcello, 2005; OECD, 2009).

An internal audit function is considered effective when it achieves its intended outcomes, adds value, and improves organisational performance (Aikins *et al.*, 2022; Erasmus & Coetzee, 2018). Key elements include delivering actionable audit findings, providing management support, and securing the resources necessary for implementing recommendations (Arena & Azzone, 2009; Bednarek, 2018). According to The IIA (2020b), effective internal auditing enables organisations to identify risks, inefficiencies, and opportunities for improvement.

The perceived effectiveness of an internal audit function largely depends on stakeholder expectations, despite the availability of systematic and generally accepted measures for assessing audit effectiveness (Dittenhofer, 2001; Tackie *et al.*, 2016). This underscores the importance of strong interpersonal relationships with stakeholders such as management and audit committees (Cohen *et al.*, 2004; Gramling *et al.*, 2004). The IIA (2017a) reinforces this, noting that internal auditing is effective when it provides the audit committee and executive management with assurance that the organisation's processes and systems effectively manage risks to achieving objectives, particularly in governance, risk management, and control processes. This assurance enhances the credibility of the internal audit function. Recent literature further emphasises the role of interpersonal relationships in strengthening internal audit effectiveness (Chambers *et al.*, 2011; Mohammadi *et al.*, 2013). However, the effectiveness of remote internal auditing, as the emerging new normal, remains unclear due to limited research, especially within the South African context (Lenz *et al.*, 2018). Understanding the factors that influence internal audit effectiveness is therefore vital for internal audit functions and the organisations they serve.

The next section introduces a conceptual framework focusing on four key determinants of internal audit effectiveness: stakeholder perception, internal audit quality, audit communication, and management support.

2.6 Conceptual framework

The conceptual framework, comprising a set of theories and overarching ideas, enables researchers to clearly define and delineate the phenomenon under investigation. In this study, the framework proposes that stakeholder perception, management support, internal audit quality, and audit communication significantly influence internal audit effectiveness. This framework is primarily informed by Albrecht et al. (1988), who argue that internal audit effectiveness is not an objectively measurable construct but is instead assessed subjectively based on stakeholders' evaluation of audit performance. Accordingly, the success of an internal audit function is determined by the extent to which it meets or exceeds stakeholders' expectations (Albrecht et al., 1988). However, while Albrecht et al. (1988) emphasise stakeholder judgment as the central evaluative lens, subsequent and more recent literature has extended this perspective by identifying specific organisational and functional factors that shape stakeholders' perceptions and, ultimately, internal audit effectiveness. Figure 2.1 therefore presents a conceptual framework adapted for this study, integrating insights from contemporary internal auditing literature to assess the effectiveness of remote internal auditing through four key determinants: stakeholder perception, management support, internal audit quality, and audit communication. Together, these determinants form a comprehensive foundation for evaluating the effectiveness of internal audit processes.

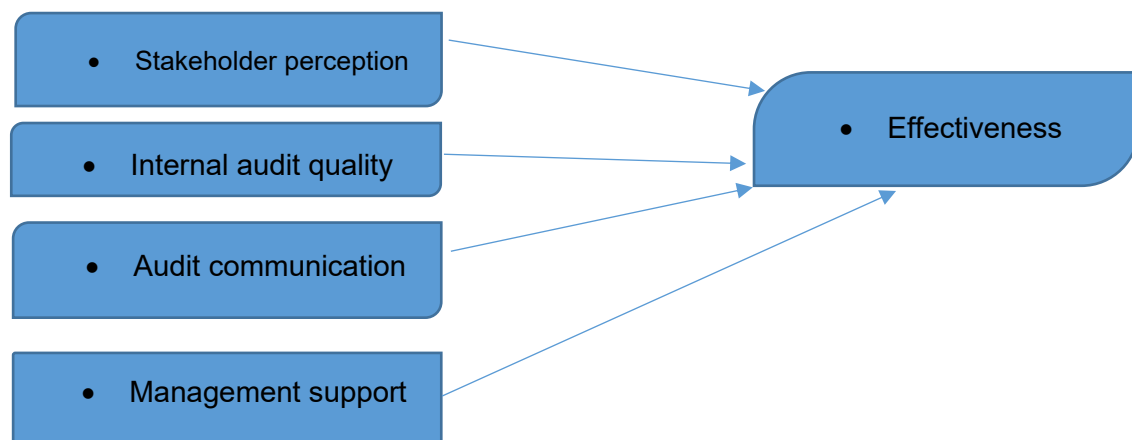


Figure 2.1: Determinants for internal audit effectiveness

Source: Figure created by the author

Ongoing discussions and debates have yet to produce a standardised model for evaluating internal audit effectiveness. However, several factors illustrated in Figure 2.1 have been identified as influential to internal audit effectiveness and are discussed in detail below.

2.6.1 Stakeholder perception

Perception refers to the process of attaining awareness or understanding of sensory information, as well as the mental image and conscious realisation of experiences when interacting with environmental elements (Woodard, 2002). It is essential for both internal auditors and their service recipients to share a common perception of the significance of internal auditing. Without this mutual understanding, stakeholders may view internal audit as an obstacle to achieving operational goals, which can undermine the effective and efficient use of audit services and recommendations, thereby negatively affecting the overall effectiveness of internal audit (Arena & Azzone, 2009).

While many internal audit functions attempt to address diverse stakeholder demands, they often fail to align their activities with a unified set of expectations. To enhance its capabilities, improve performance, and truly add value, internal audit must closely align its activities with stakeholder expectations (PwC, 2014a). Developing a comprehensive internal audit strategy that integrates operational practices with these expectations is a critical step in this process (Internal Audit 360, 2021). This involves understanding what matters most to stakeholders and gathering their feedback to assess whether they are receiving timely and relevant assurance, particularly in the context of remote internal auditing (Deloitte, 2017).

By speaking the language of stakeholders and addressing their concerns, risks, and challenges, internal audit can foster deeper engagement, evolve its practices, and increase its impact and influence over time. This alignment requires internal audit to synchronise its vision with the organisation's strategic objectives, allocate resources according to stakeholder needs, and adopt a professional approach that resonates with stakeholders' operational styles.

2.6.2 Internal audit quality

Recent literature conceptualises internal audit quality as the extent to which internal auditors consistently perform their duties in accordance with professional standards and established methodologies across all phases of the audit process. Audit quality is understood to encompass planning and supervision, execution of audit procedures, documentation, reporting, formulation of findings and recommendations, and follow-up activities (Alzeban & Gwilliam, 2018; Eulerich, Kremin & Wood, 2019). Effective planning, rigorous execution, and clear communication of audit results are widely recognised as core indicators of high-quality internal audit work.

Empirical studies further suggest that audit quality is closely linked to the internal audit function's ability to deliver timely, relevant, and actionable findings that support management decision-making and organisational improvement (Christ, Masli, Sharp & Wood, 2021; Lenz & Hahn, 2019). In line with this

perspective, the revised Global Internal Audit Standards issued by The Institute of Internal Auditors (IIA, 2024a) require internal auditors to apply a systematic and disciplined approach to planning and executing engagements, ensuring that audit outputs are reliable, value-adding, and responsive to stakeholder expectations. Accordingly, an internal audit function's capacity to plan effectively, perform audits competently, and communicate results clearly remains a fundamental benchmark for assessing audit quality in both traditional and remote auditing environments.

Carlisle, J. (2018) and Hawkins, L. (2017) suggest that remote auditing can enhance audit quality. Hawkins, L. (2017) argues that remote auditing enables auditors to maintain independence by reducing management influence and encouraging the pursuit of unbiased information to verify financial claims. Carlisle, J. (2018) further contends that remote auditors exhibit greater professional scepticism compared to traditional audits, in which auditors might overly rely on management presentations.

Conducting audits in accordance with internal auditing standards significantly improves internal audit effectiveness (Turetken, Grefen *et al.*, 2019). Compliance with these standards affects both the effectiveness and value-added contribution of internal audit, as they establish a comprehensive framework for performance and continual improvement (D'Onza *et al.*, 2015a; 2015b). The standards particularly stress the importance of implementing a quality assurance and improvement programme ([QAIP]; Standard 8.3 – Quality), which encompasses all internal audit activities and continuously monitors their effectiveness. This programme includes both internal and external assessments to evaluate compliance, efficiency, and effectiveness, as well as to identify areas for improvement (Soh & Martinov-Bennie, 2011; The IIA, 2024a).

As the quality of internal audit improves and aligns more closely with management's expectations, support and commitment from management to implement audit recommendations tend to increase. This, in turn, enhances the internal audit function's value and contribution to organisational objectives, thereby boosting overall audit effectiveness (Mihret & Yismaw, 2007a).

2.6.3 Audit communication

According to The IIA (2024a) Standard 11.2, the chief audit executive is responsible for establishing effective communication methodologies to ensure that internal audit communications are accurate, objective, clear, concise, constructive, complete, and timely. Timely issuance of internal audit reports enables management to take appropriate corrective actions based on the significance of the identified issues.

Effective communication is a critical attribute of highly effective internal audit functions, as highlighted by Chambers and McDonald, (2013b). The ability of internal auditors to communicate effectively with management and stakeholders directly influences the overall effectiveness of internal audit activities (EY, 2016). Communication with internal audit stakeholders, including the audit committee, senior management, and the board of directors, can take various forms, such as verbal and written interactions, with audit reports serving as a primary written communication tool (Conteh, 2021; Dejnaronk, Sriratanasathavorn, and Vongvitayapirom, 2016; Karagiorgos, Drogalas and Giovanis, 2011).

Mihret and Yismaw (2007a) and Pule.(2014b) argue that internal audit functions that provide valuable findings and recommendations garner increased management interest and attention. The audit process remains incomplete until these findings and recommendations are communicated effectively and in a timely manner to the relevant stakeholders. Internal auditors are expected to issue written audit reports upon completion of audits and follow up to ensure that recommendations are implemented (Dawuda, 2010; The IIA, 2009). Chambers and McDonald (2013) further emphasise that effective communication extends beyond the preparation of written reports; strong verbal communication skills are equally vital for engaging stakeholders and fostering understanding by Linyelo, (2018)

2.6.4 Management support

Scholars such as Alzeban and Sawan (2013) emphasise that management must foster an environment that empowers internal audit to fulfil its duties and responsibilities. Management support plays a crucial role in signalling the role and value of internal audit throughout the organisation, and its absence can undermine internal audit effectiveness (Shamsuddin *et al.*, 2015). For internal auditors to successfully implement audit recommendations, management support is essential (Al-Twaijry *et al.*, 2003; Baheri *et al.*, 2017). The work of internal auditors remains incomplete until identified defects are corrected and sustained.

Effective internal auditing is vital for organisations to achieve their objectives. Internal audit activities enable organisations to identify business risks and system inefficiencies, take corrective action, and support continuous improvement (Van Gansberghe, 2005). Lin *et al.* (2011) and Mihret and Yismaw (2007a) concur that audit findings and recommendations are futile unless management is committed to implementing them. Their studies conclude that management support is a critical determinant of internal audit effectiveness.

Qussil and Boilila (2020) assert that internal audit contributes to achieving organisational objectives by evaluating risk management, control, and management systems, while providing recommendations for improvement (Daniela & Attila, 2013). Management must demonstrate its commitment to executing these recommendations and allocate sufficient resources to enhance audit effectiveness.

Top management support is fundamental to the acceptance and appreciation of the internal audit function within an organisation. The International Standards for the Professional Practice of Internal Auditing ([ISPPIA], 2014) state that internal auditors require support from top management and the board of directors to effectively execute their duties. Numerous academic studies, including Albrecht *et al.* (1988), further underscore the critical influence of management support on internal audit effectiveness.

In the context of remote auditing, collaboration with the auditee becomes even more essential. While in-person audits also require the cooperation of the auditee, remote audits particularly depend on the auditee's availability and responsiveness. Limitations in access to necessary tools or timely communication can hinder the audit process and affect its success.

In conclusion, management support is a cornerstone for internal audit effectiveness. Internal audit departments must ensure that they secure and maintain this support in order to be perceived as effective by stakeholders. The next section provide valuable insights into internal audit effectiveness, a comprehensive understanding of why and under what conditions remote audit practices influence outcomes requires a theoretical lens.

2.7 Theoretical review

Theoretical frameworks offer a structured explanation of the mechanisms, processes, and contextual factors that shape organisational phenomena. In the context of remote internal auditing, theories help to clarify how audit quality, communication effectiveness, management support, and ICT infrastructure interact to influence stakeholder perceptions.

This theoretical review therefore examines four key frameworks that underpin the study: Contingency Theory, which explains how organisational context conditions audit effectiveness; Communication Theory, which highlights the mediating role of communication in translating audit quality into stakeholder perception; Technology Acceptance Model (TAM), which illuminates the role of ICT infrastructure in enabling effective remote audits; and Stakeholder Theory, which provides the rationale for treating stakeholder perception as the primary outcome of audit effectiveness. Drawing on these frameworks, the study develops an integrated moderated mediation model that guides the formulation of hypotheses and the empirical investigation in subsequent chapters.

- Contingency Theory

Contingency theory posits that the effectiveness of organisational functions depends on alignment with internal and external contextual factors (Donaldson, 2001). In the context of remote internal auditing, this implies that high audit quality alone may not guarantee effective outcomes; the presence of supportive management and robust ICT infrastructure will influence the extent to which audit findings are implemented and contribute to organisational assurance. Accordingly, management support and ICT infrastructure are conceptualised as moderating variables that condition the strength of relationships between audit quality, communication effectiveness, and stakeholder perception.

- Communication Theory

Communication theory suggests that the transmission of information is central to achieving intended outcomes (Shannon & Weaver, 1949). For remote internal auditing, communication effectiveness mediates the relationship between audit quality and stakeholder perception, as audit findings that are poorly communicated may fail to influence stakeholders or inform decision-making. This theory underpins the specification of communication effectiveness as a key mediating mechanism in the study's conceptual model.

- Technology Acceptance Model (TAM)

The Technology Acceptance Model (Davis, 1989) provides a framework for understanding how individuals adopt and effectively use technological systems. Remote internal auditing relies heavily on ICT tools for evidence collection, reporting, and stakeholder engagement. The perceived ease of use and usefulness of these systems influence both audit quality and the effectiveness of communication. ICT infrastructure is therefore modelled as a moderator, reflecting its role in enabling or constraining remote audit activities.

- Stakeholder Theory

Stakeholder theory (Freeman, 1984) highlights the importance of meeting stakeholder expectations to achieve organisational legitimacy and support. In the context of internal auditing, stakeholder perception represents the extent to which audit activities are valued, trusted, and acted upon. This study adopts stakeholder perception as the primary outcome variable, recognising that remote audit quality and effective communication must ultimately satisfy stakeholders' assurance needs.

- Justification of the Study

Despite extensive research on internal audit effectiveness, there is limited understanding of how remote internal audit quality translates into stakeholder perceptions, particularly in the post-COVID-19 environment where remote auditing is increasingly prevalent. Previous studies have primarily focused on descriptive assessments of audit outcomes, without examining the mechanisms (e.g., communication effectiveness) through which audit quality affects stakeholder perception, or the contextual conditions (e.g., management support and ICT infrastructure) that influence these effects.

This study addresses these gaps by developing and empirically testing an integrated moderated mediation model. The model examines the direct effect of remote audit quality on stakeholder perception, the mediating role of communication effectiveness, and the moderating influence of management support and ICT infrastructure. By doing so, the study provides a theoretically grounded, explanatory understanding of remote internal auditing effectiveness in South African entities, offering both academic contribution and practical insights for improving audit practice.

The next section explores the recent changes brought about by remote internal auditing and the importance of assessing its effectiveness in this evolving environment.

2.8 The world we have known has changed

The COVID-19 pandemic has brought about a profound transformation in the world (KPMG, 2020a). The unprecedented crisis has had a far-reaching impact on the audit profession (ACCA & IFAC, 2020), leading to significant changes in daily processes, including communication and the responsibilities of audit, risk, and compliance professionals (Chambers, 2021). Prior to the pandemic, internal auditing predominantly operated through in-person interactions, from planning to reporting. Audit teams convened physical meetings to define objectives, assign tasks, and engage with process owners. Auditors reviewed documentation, tested controls, and reported results face to face (Satya & Shauki, 2021).

However, with the onset of COVID-19, organisations transitioned to remote work arrangements, prompting internal auditors to conduct reviews and validations via digital platforms. They utilised technology to gather audit evidence, interact with auditees, and report on financial data and internal controls without physical presence (Deloitte, 2022). While initially driven by necessity, remote audits have proven to offer advantages over traditional on-site audits, leading to its continued adoption (Siddiqui, 2023). Literature indicates that remote auditing is not merely a response to COVID-19 but also a consequence of advancing technology (Davies, 2023). The auditing industry had to adapt to leverage technologies and enhance the audit process through remote methodologies (Albegova. &

Vasyutkina, 2022). The digital revolution has eliminated the need for a central workplace, creating new opportunities for virtual data access. Traditional on-site activities can now be conducted remotely using ICT.

The next section explores the distinction between traditional and remote auditing approaches.

2.9 Traditional face-to-face audits versus remote audits

The COVID-19 pandemic triggered a profound global transformation that significantly affected the audit profession (ACCA & IFAC, 2020; KPMG, 2020a). This unprecedented crisis reshaped the daily practices of audit, risk, and compliance professionals, altering communication channels, workflows, and the overall execution of audits (Chambers, 2021).

Prior to the pandemic, internal auditing was largely dependent on in-person engagement throughout all audit phases, from planning and fieldwork to reporting. Audit teams convened in person to set objectives, allocate tasks, and directly engage with process owners. Evidence collection, control testing, and audit reporting were traditionally conducted through face-to-face interactions (Satya & Shauki, 2021). However, the abrupt shift to remote work during the pandemic compelled internal auditors to adapt quickly by conducting reviews and validations through digital platforms. Technology became the foundation for performing audit activities, collecting electronic evidence, communicating with auditees, and delivering reports, without the need for physical presence (Deloitte, 2022). What initially began as a crisis response soon revealed clear benefits over traditional on-site audits, contributing to the ongoing adoption of remote audit practices (Siddiqui, 2023).

Research suggests that remote auditing is not merely a temporary response to the pandemic but rather a result of accelerating technological advancements. The auditing profession has increasingly embraced digital tools to enhance audit quality and efficiency through remote methodologies (Albegova,A. & Vasyutkina,L. 2022; Davies, 2023). The ongoing digital revolution has eliminated the need for a centralised workplace, enabling auditors to access information systems virtually and perform core audit functions remotely using ICT.

Understanding the distinctions between traditional and remote auditing is essential for appreciating how internal audit functions can continue to deliver value and remain effective in this evolving work environment. As Sorensen and Ortegren (2020) explain, traditional audits typically take place on-site at the auditee's premises, with face-to-face interactions serving as the primary means of communication throughout the audit life cycle. Teams meet in person to establish audit plans, delegate responsibilities, and conduct interviews, walkthroughs, and control testing, often supplemented by the physical inspection of documents and environments.

In contrast, remote internal audits eliminate the need for physical presence, requiring modified approaches for activities such as walkthroughs, interviews, and evidence collection. These audits rely heavily on digital platforms to support compliance with professional standards and facilitate the integration of technology into the audit process ((Lorentzon & Mugwira, 2023)). ICT tools are used to gather and analyse evidence, communicate with stakeholders, and issue reports effectively from remote locations (Teeter, Alles & Vasarhelyi, 2010).

Table 2.2 outlines the key differences between traditional face-to-face and remote internal auditing approaches, highlighting their unique characteristics and operational requirements.

Table 2.2: Comparison of face-to-face internal audits with remote internal audits

	Traditional (Face-to-Face Audits)	Remote Internal Audits
Approach	Internal auditor determines compliance based on the evidence that is primarily collected on-site.	Technology is used to replicate on-site internal auditing.
Data collection	Data exchanged between clients and internal auditors on-site (e.g., review of hard copies, review of electronic files/databases, and in-person interviews).	Data exchanged between clients and internal auditors remotely (e.g., review of scanned documents, review of cloud-based platforms, review of satellite imaging, and interviews through video conferencing).
Type of technology	Technology is secondary to the internal audit process (though it may be used to facilitate the process).	ICT, such as audio/video conferencing; screen sharing is used to replicate on-site internal audit.
Reliance on technology	Low – internal audit can be essentially performed without technology.	Medium – relies predominantly on ICT; off-line (e.g., desktop review), real time (e.g., interviews), or a combination thereof.
Auditor competence	Internal auditing competence (as specified in internal audit function guidelines).	Internal auditing competence and ICT competence.
Fieldwork	Usually conducted on-site.	Conducted remotely.

Source: Processed Data (2021)

As outlined above, remote auditing is fundamentally equivalent to traditional on-site auditing in terms of purpose and process. The primary distinction lies in the use of electronic tools and digital platforms to collect and analyse audit evidence. Despite the shift in medium, remote audits maintain the core objective of evaluating conformance to established audit criteria and professional standards through an objective and systematic assessment.

Internal auditors are expected to conduct remote audits in alignment with the professional standards and guidelines set by The IIA (2024a) and the International Auditing and Assurance Standards Board ([IAASB], 2020). Compliance with these standards plays a critical role in enhancing the effectiveness of the internal audit function and its capacity to deliver value. These frameworks provide structured guidance for planning, execution, communication, and reporting, thereby reinforcing both the quality and strategic contribution of internal auditing activities.

The following section introduces the Global Internal Audit Standards that govern internal audit activities.

2.10 Global Internal Audit Standards

As previously noted, The IIA serves as the global governing body for the internal audit profession. Like other professional disciplines, internal auditing is governed by a structured set of standards and regulations that guide its practice. The IIA's Global Internal Audit Standards (the Standards) form the foundational framework that ensures internal auditors deliver services with accuracy, timeliness, and cost efficiency within their organisations (The IIA, 2023). These Standards aim to promote global consistency in internal audit practices while acknowledging the influence of varying organisational contexts, legal frameworks, and cultural environments. They also serve as a benchmark for evaluating and enhancing the quality of the internal audit function (The IIA, 2010).

At the heart of the Standards are 15 guiding principles designed to support effective internal auditing. Each principle is supported by detailed standards, implementation guidance, and illustrative examples of evidence to demonstrate conformance. Together, these components provide a structured pathway for internal auditors to uphold the principles and fulfil the overarching mission of internal auditing (The IIA, 2024a).

The Standards apply universally to all providers of internal audit services, regardless of whether auditors are employed internally, contracted externally, or engaged through a hybrid arrangement. Adherence to the Standards is mandatory for all internal audit professionals, as prescribed by The IIA. Both The IIA (2023) and IAASB (2020) have reaffirmed that, despite the unique complexities introduced by remote auditing, internal auditors remain fully accountable for conducting their work in compliance with the established Standards and relevant professional guidance. Specifically, Standard 9.4 requires the chief audit executive to develop a risk-based audit plan that is aligned with the organisation's objectives and risk profile (The IIA & Woller, 2017).

The following section provides a detailed discussion of the risk-based approach to internal auditing.

2.11 Risk-based approach

The process begins with identifying the organisation's risk universe, followed by assessing management's top strategic risks and business objectives. Thereafter, each identified risk is evaluated and corresponding mitigation strategies are formulated to address potential exposures. This process allows organisations to proactively manage key risk areas through robust controls and risk management mechanisms. Based on this risk assessment, an audit plan is developed to provide senior management with focused, actionable insights (Vicente, 2023).

The primary objective of a risk-based audit plan is to target the organisation's highest-priority risks. However, the risk environment is inherently dynamic. As such, the audit plan must remain flexible and continuously updated to reflect changes in the organisation's risk profile (Feizizadeh, 2012). Internal audit's active involvement in the broader risk management process enables this responsiveness, allowing for real-time adaptation of the audit plan as new risks emerge (Sarens & De Beelde, 2006). Risk-based auditing is widely regarded as a modern and forward-looking approach that helps organisations identify and mitigate risks that could hinder the achievement of strategic and operational objectives (Arena & Azzone, 2009; Lenz & Hahn, 2015).

Moreover, a risk-based approach provides assurance regarding the effectiveness of risk management and internal control systems (Lois *et al.*, 2021). With the shift to remote work and rapid digital transformation, internal audit functions are increasingly encountering new, unexpected, and often unknown inherent risks during audit engagements (Tusek *et al.*, 2020). Remote working environments pose significant challenges, particularly in terms of data security and privacy. In response, organisations have implemented additional controls to prevent data breaches and protect sensitive information from both internal misuse and external cyberattacks. As a result, audit functions must rigorously evaluate cybersecurity frameworks and ensure that remote networks are adequately safeguarded against potential threats (Kristensen *et al.*, 2021). The ability to identify all relevant risks – including emerging, unforeseen, and latent threats – is crucial for establishing effective risk management practices and internal controls.

The following section presents a detailed overview of the phases of internal auditing, with a particular focus on how these steps are adapted for remote audit environments to ensure comprehensive risk identification and mitigation.

2.12 Remote internal audit phases

A remote audit is equivalent to a traditional audit but uses electronic methods to gather audit evidence remotely and objectively evaluate it against established audit criteria. Figure 2.2 illustrates the flow of the risk-based remote audit process.

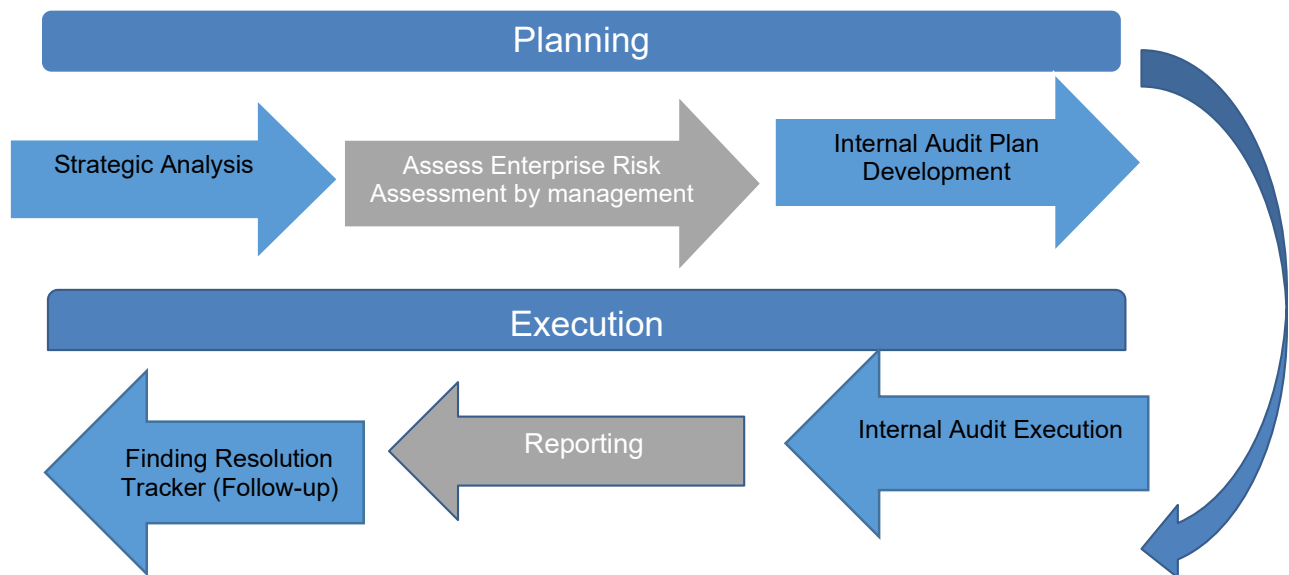


Figure 2.2: The risk-based internal audit process

Source: The Institute of Chartered Accountants of India (2007)

Remote internal audit encompasses five primary phases: (i) preparing a risk-based annual audit plan, (ii) planning the remote audit, (iii) executing the fieldwork, (iv) reporting, and (v) following up (Eulerich, 2022; Serag & Daoud, 2021a). Below is a discussion of each phase of remote internal auditing.

2.12.1 Phase 1: Preparing a risk-based annual audit plan

Before commencing audits, internal auditors establish a risk universe that serves as the foundation of the audit plan. This involves assessing management's top risks and business objectives. The outcomes of this risk assessment guide the development of an audit plan that outlines the audits to be performed.

2.12.2 Phase 2: Planning a remote internal audit

At the start of the audit, a formal virtual opening meeting is held with all stakeholders to introduce participants and clarify the audit's scope, objectives, and planning. Establishing clear communication protocols is critical for a smooth remote audit process. Consistent communication throughout all phases is essential to ensure progress and avoid surprises at the conclusion (KPMG, 2020c).

2.12.3 Phase 3: Execution/fieldwork

Key differences between remote and traditional audits include the use of video conferencing in place of face-to-face interviews and the transfer of documentation through secure document-sharing platforms (Serag & Daoud, 2020). Ideally, all documents should be centralised in a single repository rather than distributed via email. Confidentiality and security requirements must be strictly adhered to when sharing documents. The purpose of fieldwork is to conduct audit testing to assess the adequacy of internal controls. Internal auditors verify that controls operate as described by reviewing records and evidence through cloud storage, live screen sharing, or shared images (Serag & Daoud, 2020).

2.12.4 Phase 4: Reporting

The reporting phase involves formally communicating the audit results. Clear and consistent communication is especially important in remote audits. Reporting protocols may require adjustments in frequency and format to maintain sufficient interaction with auditees (Serag & Daoud, 2020). Each observation must be discussed and validated with the auditees before the report is finalised. Findings should be accompanied by actionable recommendations aimed at addressing control weaknesses and improving processes (Clarke, 2022). The closing meeting, conducted via web conference in remote audits, is used to present and discuss findings with management, resolve disagreements, and agree on conclusions.

2.12.5 Phase 5: Follow-up

Follow-up audits verify the implementation of agreed-upon recommendations or action plans. Typically, these audits occur at the end of the quarter when the action plan is due for completion but may extend across multiple quarters depending on timelines (Office of Internal Audit, 2024). Internal auditors prepare an issue-tracking report reflecting the current status of management's actions. This report helps the audit committee and senior management monitor progress between reporting periods and includes the auditors' evaluation of the effectiveness of implementation.

While the phases of remote audits mirror those of traditional audits, remote audits rely on electronic methods to collect audit evidence and objectively evaluate it. The advantages and disadvantages of this approach are discussed in the next section.

2.13 Disadvantages and advantages of remote internal audits

Remote work arrangements offer a range of benefits and challenges that significantly affect collaboration and work outcomes. A growing body of research has examined these dynamics in various professional settings (Gibbs *et al.*, 2022). Among the most frequently cited benefits are the

elimination of commuting time, reduced workplace distractions, improved work-life balance, enhanced flexibility, and increased creativity and motivation. Several studies have also reported gains in productivity, suggesting that physical proximity to colleagues may, in some cases, hinder efficiency (Bloom et al., 2015; Choudhury et al., 2021). Remote workers often perform more effectively without the interruptions commonly associated with traditional office environments (Wang et al., 2020). In the context of internal auditing, remote audit techniques may even enhance auditor objectivity, as physical distance from the auditee can foster increased professional scepticism and impartiality (Mihret & Yismaw, 2007; Serag & Daoud, 2020).

However, transitioning internal audit functions to remote work presents a number of challenges. These include technological limitations, restricted access to physical documentation, and communication barriers. One of the most notable drawbacks of remote auditing is the absence of nonverbal communication cues – such as facial expressions, eye contact, body language, and hand gestures – which are essential for ensuring clarity and building rapport (Besson, 2005). As Pelletier (n.d.) aptly notes, “Regular contact is essential to avoid missing valuable information that helps understand the audited area”. Without a structured and deliberate communication plan, scheduling and conducting stakeholder meetings can become difficult. Yet maintaining strong, trust-based relationships with auditees is essential; not only to facilitate cooperation and information sharing during engagements but also to uphold audit quality in the long term.

Table 2.3 summarises the advantages and disadvantages of remote internal auditing.

Table 2.3: Summary of advantages and disadvantages of remote auditing

Advantages	Disadvantages
Improved productivity: • The hybrid model enables organisations to redefine performance metrics, fostering a results-oriented culture that can lead to enhanced employee productivity. • Employees have the flexibility to work when and how they are most productive, promoting greater efficiency and output.	Increased employee isolation: • Extended periods of remote work, during which employees focus on individual tasks, can weaken workplace relationships and reduce the camaraderie that typically develops through in-person interaction.

Advantages	Disadvantages
Reduced cost of operation: The hybrid work model reduces the number of employees present in the office at any given time, decreasing the need for extensive office space. This can result in significant savings on rental costs. Additionally, with fewer on-site employees, organisations require fewer office supplies and utilities, further lowering operational expenses.	Organisational culture: - Limited employee interaction and reduced opportunities for team collaboration in a hybrid or remote environment can foster a silo mentality, undermining the organisational culture of unity and shared purpose. - Maintaining a consistent employee experience and reinforcing company culture across a dispersed workforce can be challenging, potentially influencing engagement and alignment with organisational goals.
Redefining collaboration: Employees no longer need to be physically present in the same room to brainstorm or collaborate effectively. Advances in digital communication tools have enabled real-time collaboration across locations, allowing teams to share ideas, solve problems, and innovate remotely.	Heightened cyber risks: Cyberattacks and risks such as data loss become more prevalent when employees work and communicate from multiple, changing locations. To mitigate these vulnerabilities, organisations must secure their digital footprint through regular software updates, strong password policies, and multi-factor authentication, as remote environments increase exposure to potential data breaches.
Better work-life balance: Flexible work arrangements make it easier for employees to achieve a healthy balance between work and personal life. With greater control over their schedules, employees can allocate time to address personal commitments as they arise, reducing stress and improving overall well-being.	Harder to collaborate with remote employees: In a hybrid work model, employees come into the workplace on different days, which can reduce opportunities for spontaneous interaction and collaboration. As a result, team members may miss chances to connect and collaborate effectively in person.
Saving on office expenses: - Many organisations have downsized their office spaces in response to the growing adoption of remote work. - With fewer employees working on-site, employers require less office space, leading to reduced rental and maintenance costs.	Requires oversight and maintenance to keep it working: Implementing a successful hybrid work model requires careful planning and ongoing attention. Flexibility must be balanced with effective oversight, clear policies, and consistent management to ensure smooth operation and maintain productivity.
Increased agility and resilience: Organisations that adopt hybrid working models become more adaptable to disruptions that could interrupt business as usual, enhancing their resilience in the face of future challenges.	Not suitable for all industries: - Hybrid work models may not be suitable for every industry or job function, particularly those requiring physical presence or specialized equipment. - Training new staff remotely can be less effective, as it may limit hands-on learning opportunities and reduce direct mentorship.

Advantages	Disadvantages
Increased efficiency: - Digital tools and cloud-based platforms streamline data sharing, document management, and collaboration, significantly enhancing the efficiency of the audit process. - These technologies also provide easier access to documentation and facilitate secure, seamless data transfer across locations.	Delays: - Delays in receiving necessary information can slow down the audit process. - Communication with client management and the audit team may also be delayed, impacting timely decision-making and issue resolution.

Source: Mogale Solution Providers and author's data (2023)

An informal poll conducted on LinkedIn by the Internal Audit Foundation and AuditBoard in September 2021 highlighted additional challenges associated with remote auditing. Among more than 1 800 respondents, 52% identified building key relationships as the primary obstacle, while 27% cited difficulty in accessing information as a significant barrier. Other concerns included maintaining audit quality (13%) and testing new assurance methods (8%) (see Figure 2.3). The importance of relationship-building in remote environments is further underscored by a separate finding from the same AuditBoard survey: 40% of internal auditors reported that remote auditing had weakened their relationships with non-audit personnel within their organisations (Internal Audit 360, 2022).

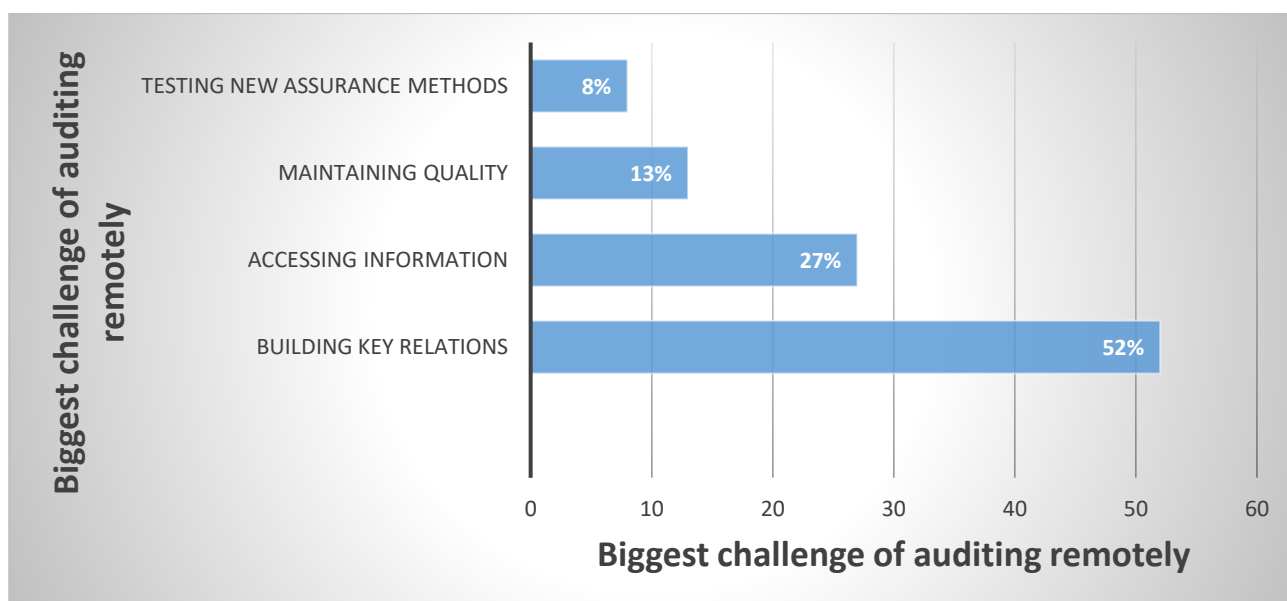


Figure 2.3: Challenges associated with remote auditing

Remote auditing offers undeniable advantages, even though certain challenges remain to be addressed. As a modern auditing method, it presents a valuable opportunity for internal auditors to leverage technology and adapt to an increasingly dynamic and digitised business environment.

In conclusion, remote auditing introduces more efficient and innovative approaches to internal audit practice, positively influencing employees' adaptability to the evolving business landscape and future transformations.

The following section explores the anticipated evolution of the internal audit function.

2.14 Future of internal audits

The internal audit function has increasingly adopted a forward-looking, adaptive culture in response to rapid professional transformation and technological innovation. To remain relevant and effective in a changing landscape, internal auditors must respond to evolving stakeholder expectations by embracing advanced evidence-gathering techniques, conducting continuous risk assessments, and operating within flexible, hybrid work models (Internal Audit 360, 2022).

The COVID-19 pandemic highlighted the critical need for organisational resilience, underscoring the importance of both effective crisis response and proactive risk anticipation. In this context, internal audit plays a pivotal role in providing timely, forward-looking insights that enable organisations to navigate uncertainty and complexity. As risk environments grow more dynamic, internal audit must remain tightly aligned with shifting business conditions, emerging threats, and evolving risk profiles (Mbali, 2023). Key enablers of this alignment include real-time risk assessment, continuous monitoring, and continuous auditing, which collectively enhance risk management capabilities, inform strategic decision-making, and support cost efficiency (Serag & Daoud, 2020).

The new Global Internal Audit Standards, took effect in January 2025, reinforce this progressive vision by positioning internal auditing as a value-creating function. These Standards emphasise the delivery of independent, risk-based, and objective assurance, as well as advisory services that offer insight and foresight to both executive management and the board. The ultimate goal is to enable organisations to create, protect, and sustain long-term value (The IIA, 2024a).

Notably, nearly 40% of internal auditors report having adopted or having begun implementing continuous monitoring and continuous audit practices. These practices strengthen organisational risk oversight, facilitate proactive and data-driven decisions, and contribute to cost reduction. By shifting the audit focus from retrospective issue detection to real-time identification of control breakdowns and risk triggers, continuous auditing enables organisations to respond more effectively to change and enhance overall performance (Serag & Daoud, 2020). In doing so, internal audit evolves into a more strategic, value-adding function that benefits both the organisation and its stakeholders.

To sustain this momentum, internal audit must continue evolving in line with the demands of remote work environments and the need for ongoing operational relevance (Edmunds & Hancock, 2020). The internal auditor of the future will require a distinctive and adaptable skill set, encompassing digital literacy, creativity, resilience, agility, and a strong sense of professional purpose (Mbali, 2023). Embracing agility enables audit teams to deliver greater value, adaptability, and responsiveness. Agile auditing and governance frameworks allow internal auditors to rapidly adjust to emerging risks, manage distributed operations effectively, and align with better stakeholder expectations (Deloitte, 2020; KPMG, 2019). This approach contributes to shorter audit cycles, improved audit quality and cost efficiency, and enhanced transparency, ultimately increasing the productivity and impact of the internal audit function (Craze, 2022; Joshi, 2021).

MetricStream (2021) outlined a five-step approach for enhancing agility within the internal audit functions:

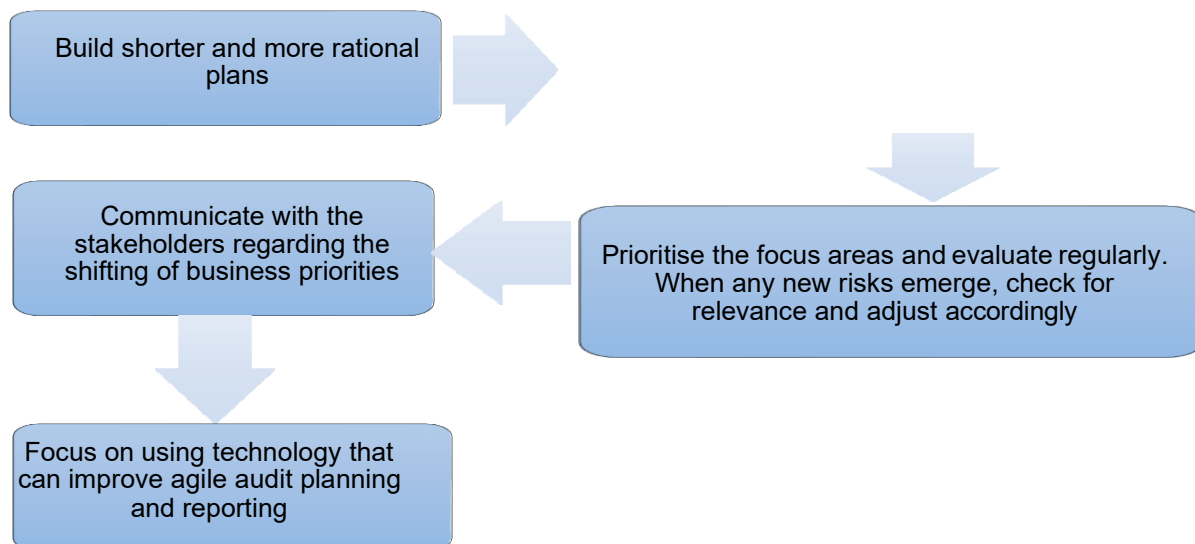


Figure 2.4: Agile approach

Source: MetricStream (2021)

In today's rapidly evolving landscape, digital transformation is no longer a future aspiration but a present imperative. Organisations face growing pressure to drive growth, enhance agility, and build resilience, all while managing risks and preparing for ongoing uncertainty. In response to these challenges, remote auditing has become a critical element of the modern audit landscape, playing a pivotal role in reshaping the future of internal audit.

2.15 Chapter summary

This chapter defined internal audit and underscored its role as a provider of independent assurance, supporting organisations in achieving their strategic objectives. The discussion highlighted the importance of internal audits within the context of remote audits, particularly regarding its contributions to risk management, corporate governance, and internal control, as guided by the Global Internal Audit Standards. The chapter also introduced the conceptual framework underpinning internal audits, identifying key factors that influence the effectiveness of internal audit functions, including stakeholder perceptions, management support, audit quality, and communication effectiveness.

Additionally, the chapter examined the transition from traditional face-to-face audits to remote internal audits, outlining the benefits of remote audits – such as cost efficiency and increased objectivity – alongside challenges such as technological constraints, limited access to physical documentation, and potential communication barriers. The discussion concluded by emphasising the importance of leveraging remote audit environments to enhance internal audit function effectiveness and efficiency. Strategies such as continuous monitoring, continuous auditing, agile methodologies, and digital transformation were identified as critical enablers of this shift.

This literature review provides a foundational basis for evaluating the effectiveness of remote internal audits in the South African context. The following chapter presents the research design and methodology employed to achieve the study's objectives.

3 CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research design and methodology employed to achieve the study's objectives as detailed in Chapter 1. It provides an overview of the research paradigms and explains the research approach used. The chapter examines the research population and describes the research sample and sampling method. Additionally, it includes strategies and procedures for managing, organising, and analysing the collected data. It also addresses the issues of reliability and validity, ensuring a comprehensive discussion of these critical aspects. A concluding summary synthesises all the elements discussed, highlighting their interconnectedness and their contributions to the overall research framework. In addition, the issues of reliability and validity of the data presented in this study are discussed appropriately.

3.2 Research methodology: Research onion model

The research onion model developed by Saunders *et al.* (2009) is a systematic approach to designing the research methodology for a dissertation or thesis. It serves as a valuable framework for selecting the appropriate research philosophy and developing a research strategy. The model comprises six layers, with each layer representing a specific aspect of the research process (Saunders *et al.*, 2009). The relationship between the research onion model and research methodology is illustrated through the process of peeling away each layer, starting from the outermost layer and progressing towards the core (Saunders *et al.*, 2019).

The model consists of six main layers, which include: (i) philosophy, (ii) approach, (iii) strategy, (iv) methods, (v) time horizon, and (vi) techniques and processes, which encompasses data collection and analysis (inner core) (Saunders *et al.*, 2012). Figure 3.1 illustrates the different stages involved in designing a research methodology using the research onion framework.

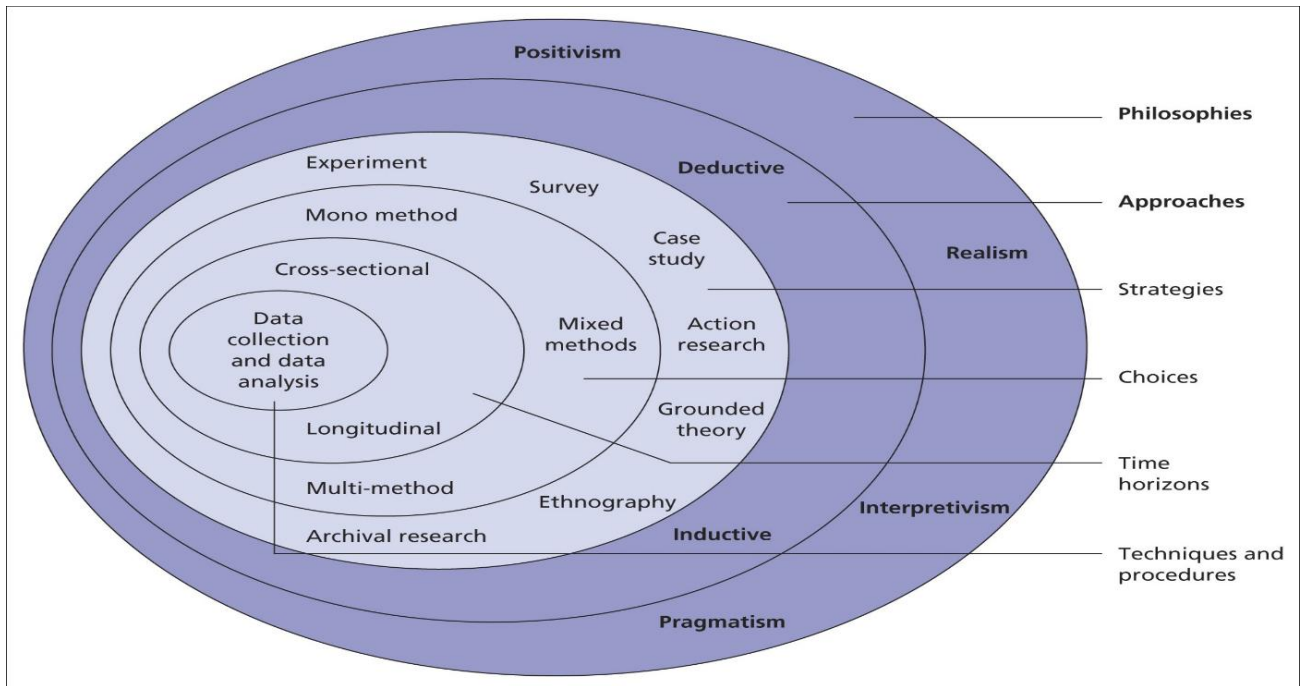


Figure 3.1: Different stages in designing a research methodology using the research onion framework

Source: Saunders *et al.* (2009).

All layers of the onion model are interconnected and influence one another during the research designing process. The next sections discuss the various layers in more detail.

3.2.1 Layer 1: Research paradigm/philosophy

The first layer of the onion is the research paradigm or philosophy. The term 'paradigm' originates from the Greek word *paradeigma*, meaning pattern, which was first introduced by Kuhn (1962) to describe a conceptual framework shared by a community of scientists. This framework provides a model for examining problems and finding solutions. Scholars, including Ackermann (2014), Creswell and Plano Clark (2011), Doyle *et al.* (2009), and Harrits (2011), define research paradigms as sets of beliefs and methodologies that guide researchers in collecting, analysing, interpreting, and presenting data to achieve their study objectives. Research paradigms are crucial for guiding researchers in making sound decisions and providing a structured framework for describing their studies (Fouché *et al.*, 2011).

Ackermann (2014), Doyle *et al.* (2009), and Harrits (2011) argue that a research paradigm is characterised by its epistemology (the study of knowledge acquisition), ontology (the nature of reality), and axiology (the values influencing the researcher). These core beliefs categorise researchers into three main paradigms: positivism (quantitative paradigm), interpretivism (qualitative paradigm), and

pragmatism (mixed-methods paradigm). Table 3.1 provides an overview of these research paradigms along with their corresponding research designs.

Table 3.1: An overview of research paradigms and research designs

Paradigm	Ontology	Epistemology	Axiology	Research design
Positivism	Objective, independent and external of social factors.	Credible data can only be provided by observable phenomena.	Etic and value-free. Study is conducted in a value-free manner, wherein the researcher remains independent of the data.	Quantitative.
Interpretivism	Subjective, socially constructed and subject to change.	Social phenomena and subjective meanings. Focus is placed on the details of situation, the reality regarding the details, motivating actions and subjective meanings.	Emic and value bond. Research implemented is value bond. The role of the researcher in the research process is subjective and cannot be separated.	Qualitative.
Pragmatism	External view is selected to best obtain and answer the research question.	Credible data is provided by either or both observable and subjective phenomena Focus is placed on practically applied research, integrating different perspectives to contribute to interpretation of the data.	Etic-emic values play a great role in the interpretation of the results. Researcher is adopting both objective and subjective viewpoints.	Mixed methods (quantitative and qualitative).

Source: Adapted from Guba and Lincoln (2005), Hallebone and Priest (2009), and Saunders *et al.* (2009)

As illustrated in Table 3.1, three types of research designs, each aligned with specific research paradigms, were considered for this study: qualitative, quantitative, and mixed-methods strategies (Saunders *et al.*, 2009; Williams, 2007). Qualitative research aims to gain an in-depth understanding of phenomena by exploring beliefs, perceptions, and experiences through methods such as participant observation and textual analysis (Denzin & Lincoln, 2011; Nickerson, 2022). In contrast, quantitative research focuses on quantifying phenomena using numerical or statistical methods to provide

objective descriptions (Kothari, 2004; Williams, 2007). Mixed-methods research integrates both qualitative and quantitative approaches (Saunders *et al.*, 2009).

The following discussion provides further detailed insight into the positivist research paradigm and the quantitative research design that are being used in this study.

Positivism paradigm

This study adopts the positivist research paradigm because it seeks to examine the effectiveness of remote internal audits in a systematic and measurable way. The positivist approach is appropriate here as the study aims to test clear, predefined relationships between variables, such as stakeholder perception, management support, internal audit quality, and audit communication, and their influence on audit effectiveness. By employing this paradigm, the research maintains an objective stance, minimising researcher bias and enabling the collection of data that can be quantified, statistically analysed, and potentially generalised to similar organisational contexts (Creswell, 2014; Bryman, 2016; Saunders, Lewis & Thornhill, 2019).

A quantitative research design is therefore used, as it aligns with the study's focus on measuring and analysing relationships between specific variables. Questionnaires are employed to gather data from participants in a structured and standardised manner, ensuring consistency and comparability of responses across the sample. This design supports the deductive approach adopted in the study, allowing hypotheses derived from existing literature to be tested empirically. Ultimately, the positivist paradigm and quantitative design together provide a robust framework for generating reliable, generalisable insights into the factors influencing the effectiveness of remote internal audits.

3.2.2 Layer 2: Approach to theory development

The next layer examines the research approach, which represents the overarching method used for the research, whether inductive or deductive.

The research approach can be referred to as a procedure that includes steps and methods for collecting data, analysing it, and elucidating the findings. The selection of the research approach is based on the nature of the research issue being investigated. There are two main types of research approaches used by researchers: the inductive approach and the deductive approach. An inductive approach involves the formulation of a hypothesis and begins with a research question that needs to be addressed during the investigation process (Almarayeh *et al.*, 2020). On the other hand, a deductive approach involves the formulation of a hypothesis that must be either rejected or confirmed during the study.

This study adopts a deductive research approach because it aims to test predefined theoretical relationships between specific variables, namely stakeholder perception, management support, internal audit quality, and audit communication and their impact on internal audit effectiveness. A deductive approach is appropriate here as it allows the research to move systematically from theory to empirical testing, ensuring that hypotheses derived from existing literature can be evaluated using structured, quantifiable data. This approach aligns with the quantitative research design employed in the study, as it supports the use of standardized questionnaires and statistical analysis to objectively measure relationships between variables. By following a deductive approach, the study ensures rigour, replicability, and the potential for generalisable findings, which are central to addressing the research objectives within the context of remote internal auditing.

3.2.3 Layer 3: Research strategies

Peeling away the methodological choice reveals the next layer of the onion: strategy(ies). This layer's label emphasises immediately that researchers can use one or more strategies within their research design as they plan how answer or address a research question. The research strategy describes how the researcher intends to carry out the work (Saunders *et al.*, 2009). The strategy can include various approaches, such as experimental research, action research, case study research, interviews, surveys, or a systematic literature review. In this research, a survey strategy was adopted.

The survey strategy of the research onion is often linked to the deductive approach. It is one of the most effective and economical research strategies. Researchers can collect rich and reliable data using this method. Surveys are often used in quantitative research projects and involve sampling a representative proportion of the population (Bryman & Bell, 2011). The survey strategy was used primarily to observe contributing variables across different datasets. It permitted the collection of extensive data, which would be used to answer the research question.

3.2.4 Layer 4: Choices of methods

Research methodology is a crucial aspect of the research process, linking the research question and objectives to data collection, analysis, and interpretation in a logical and systematic manner (Hartley, 2004; Leedy, 1997). It involves gathering and presenting reliable information while using an analytical approach to argue a point with facts, details, examples, and opinions (Rozakis, 1999).

The research onion suggests mono-method, mixed-method and multi-method approaches as possible choices for conducting research. The mono-method comprises only one method for the study. The mixed method is based on the use of two or more research methods of and commonly refers to the

combination of qualitative and quantitative methodologies. Finally, the multi-method approach uses a wider range of methods.

This study considered the following three research approaches, each aligned with specific research objectives and paradigms (Saunders *et al.*, 2009; Williams, 2007):

- Qualitative research: Seeks in-depth insights into phenomena by exploring beliefs, perceptions, and experiences through methods like participant observation and textual analysis (Denzin & Lincoln, 2011; Nickerson, 2022).
- Quantitative research: Quantifies phenomena using numeric or statistical methods to describe them objectively (Kothari, 2004; Williams, 2007).
- Mixed-methods research: Combines both qualitative and quantitative approaches (Saunders *et al.*, 2009).

Swanepoel (2017a) highlights the differences between mixed, qualitative, and quantitative research methodologies, including their philosophical perspectives, types, purposes, data collection methods, and analysis techniques. This comparison reveals that each method has its strengths, and combining them results in more comprehensive conclusions and insights from diverse perspectives. The comparison is summarised and graphically presented in Table 3.2, illustrating the distinct characteristics of each research approach.

Table 3.2: Research methodology comparison

Description	Mixed method	Qualitative	Quantitative
Philosophical perspective	Positivist or interpretivist (De Villiers, 2015:50)	Naturalistic and reality (Catelllan, 2010:4)	Positivist (Welman <i>et al.</i> , 2005:7) Independent research (Catelllan, 2010:4)
Types of research	Cross-sectional (Leedy & Ormrod, 2010:144)	Ethnography, grounded theory, content analysis (Catelllan, 2010:4)	Experimental, comparative (Catelllan, 2010:4)
Purpose of research	Understanding and explaining results (Swanepoel, 2017a:102)	Exploring and comparing (Russel & Ryan, 2010:8)	Relationships between variables (Catelllan, 2010:5)
Data collection	Content analysis (Leedy & Ormrod, 2010:144)	Observation, interviews and documents (Creswell, 2014:234)	Questionnaires and statistical tests (Catelllan, 2010:4)
Data analysis	Use of statistical software and analysis of qualitative and quantitative data	Inductive process (Harwell, 2011:149)	Deductive process testing theory and causality between data (De Villiers, 2015:30)

Source: Swanepoel (2017a:102–103) and authors listed in the table

It is evident from Table 3.2 that this study adhered to a mono-method approach, which involved using only one method for the research. Additionally, it implemented the principles of the positivist research paradigm, which guided the adoption of a quantitative research approach. This approach involved the use of questionnaires to collect data.

The discussion that follows provides an in-depth examination of the quantitative research designs employed.

Quantitative research approach

Creswell (2014) defines quantitative research as a method that uses surveys for data collection. This approach focuses on gathering and analysing numerical data, often through scores that measure specific attributes of individuals or organisations. Data is collected using established methods, such as questionnaires or interviews, which capture responses to predetermined questions with fixed options. Statistical procedures are applied to analyse and summarise the data, drawing inferences about the broader population based on sample data. The primary aim of quantitative research is to categorise features, count occurrences, and develop statistical models to explain observations. When executed properly, quantitative research can produce statistically reliable results that are generalisable to the larger population (Ronald, 2007).

3.2.5 Layer 5: Time horizon

The final layer of the research onion, before reaching the core, highlights the time horizon over which the researcher undertakes the research. When research is conducted to answer a question or address a problem at a specific point in time, this snapshot is cross-sectional and typically employs strategies such as surveys or case studies (Saunders, Lewis & Thornhill, 2012; Bryman, 2016). Conversely, when answering the question or addressing the problem requires collecting data over an extended period, the research is considered longitudinal and is likely to employ strategies such as experiments, action research, grounded theory, and archival research (Saunders, Lewis & Thornhill, 2012; Creswell, 2014).

This research addressed a problem at a specific time; this snapshot was cross-sectional and involved answering a questionnaire.

3.2.6 Layer 6: Techniques and procedures

Finally, the centre of the onion delves into choices regarding specific techniques and procedures. The following techniques were adopted in this study:

3.2.6.1 Research design

An effective research design is essential, as it establishes a logical connection between data collection, analysis, and conclusions. Research design can be defined as the systematic arrangement of various components in a rational and comprehensible manner, ensuring that the research problem is addressed effectively. According to Gill and Johnson (1997), it serves as a roadmap for implementing the study, outlining the necessary activities to achieve the research objectives.

Durrheim *et al.* (2006) categorise research into three types:

- Exploratory research: Seeks to explore new phenomena, gain insights, or discover new ideas (Burns & Grove, 2001). It investigates the feasibility of a study and explores existing theories (Kumar, 2011).
- Descriptive research: Involves the direct exploration, analysis, and description of a phenomenon with minimal presuppositions, aiming for an intuitive presentation (Streubert & Carpenter, 2011). Its goal is to document the phenomenon as it occurs naturally (Marshall & Rossman, 1995).
- Explanatory research: Aims to establish connections between ideas by analysing cause-and-effect relationships to explain current situations (Streubert & Carpenter, 2011). It provides evidence of relationships between dependent and independent variables (Bless *et al.*, 2006).

This study utilised a descriptive research design to evaluate the effectiveness of remote internal audits. This approach allowed the researcher to identify and assess the factors contributing to effectiveness and their impact on the work of internal auditors. The goal was to explore and understand a relatively under-researched phenomenon, making descriptive research an appropriate choice. Descriptive statistics were used to describe and organise characteristics of score distributions, which are often presented in graphs and tables (Salkind, 2017). Additionally, descriptive statistics facilitated the numerical and statistical description and comparison of variables (Saunders *et al.*, 2009).

3.2.6.2 Population and sampling

Target population

Population refers to the entire set of units for which the study's data are being used to make inferences (Kothari, 2004). The target population is presenting the specific group for which the study's findings are being generalised (Dempsey, 2003). However, studying the entire population is providing to be impractical, making sampling a necessary tool. The researcher is selecting the most relevant population to achieve their objectives, making the population a critical aspect of the study.

The population consisted of stakeholders associated with the internal audit function at NERSA and four co-sourced internal audit firms: MMM Advisory Services, Samba Solutions (Pty) Ltd, SAB&T Chartered Accountants Inc., and SNG Grant Thornton. This approach was classified as non-random sampling or non-probability sampling, where not all members of the population had an equal chance of being selected (Sampling-UIAH, 2012). In non-random sampling, the researcher typically selects units based on prediction or control (Du Plooy, 2006), using judgment or expert knowledge to ensure the sample is representative of the population (Burger & Silima, 2006). The selected sample was contacted via email to complete the questionnaires. The selected stakeholder group comprised senior officials, including chief executive officers (CEOs), chief audit executives, chief financial officers (CFOs), chair: audit and risk committee, audit committee members, management, internal auditors, and external auditors.

According to Hair *et al.* (2007) or survey-based research, a recommended sample size is often between 110 and 140 respondents. This guideline is relevant to the current study because the research uses a structured questionnaire to measure multiple variables, similar to the conditions described by Hair *et al.*, and therefore a sample within this range provides sufficient power for quantitative analysis. Using Yamane's (1962, 1967) formula, the sample size is being calculated from a population of 200 potential respondents, resulting in a final sample of 133 participants at a 95% confidence level with a 5% sampling error. The total population of 200 potential respondents is representing all relevant stakeholders associated with the internal audit function across NERSA and the four co-sourced internal audit firms. This population includes chief executive officers (CEOs), chief financial officers (CFOs), chief audit executives, audit committee chairs, audit committee members, management representatives, internal auditors, and external auditors.

The formula for calculating the sample size using Yamane's technique is:

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

This means for this research, the sampling size had to be:

$$n = \frac{200}{1 + 200(0,05)^2} = 133$$

Where:

n = Size of the entire sampling frame of study

e = Sampling error value

N = Size of the entire population of study

Sampling techniques

Sampling, as defined by Brynard and Hanekom (2010), is a method used to select a small group from a larger population to draw conclusions about the entire population. Scott and Morrison (2007) similarly describe sampling as the process of selecting a subset of individuals or objects from a larger group. According to Kothari (2004), the individuals chosen are referred to as a sample, and the process of selecting this sample is known as the sampling technique. The primary goal of sampling is to obtain a representative sample from a larger population, enabling researchers to study this smaller group and make accurate generalisations about the larger population (Brink, 2001). A representative sample ensures that the findings of a study can be generalised and that inferences can be made about the entire population (Greener, 2008). Thus, a sample is defined as data selected from a population in a manner that is representative of the entire population, allowing the results to be generalised.

These methods are typically classified into two main categories: probability sampling and non-probability sampling (Maree *et al.*, 2011). In probability sampling, every individual in the population has a known and equal chance of being included in the sample (Iacobucci & Churchill, 2010). In contrast, non-probability sampling does not provide a known chance of selection for each individual, making the likelihood of inclusion unknown (Malhotra, 2010). Table 3.3 outlines the definitions of these two main sampling methods, along with their subcategories and corresponding definitions.

Table 3.3: Sampling methods defined

Sampling methods		Definition
Probability	Simple random sampling	From the population, each individual theoretically has the same likelihood of being selected for a sample.
	Stratified random sampling	The population is divided into mutually exclusive groups so that the sample will have a fair representation of varying groups from population.
	Systematic sampling	The first individual is solely selected randomly from the population; subsequent individuals are established on a specific interval, which is based on a required sample percentage.
	Cluster sampling	A two-stage process in which a random sample of cluster is drawn; thereafter, a random sample of components within each cluster is drawn.
Non-probability	Purposive sampling	Sample that has been obtained solely built on a researcher's judgment of what components best represent the traits of the population.
	Snowball sampling	Initial respondents are asked to classify supplementary individuals who have similar traits and are willing to engage in the study.
	Quota sampling	Occurs when characteristic individuals are selected out of a specific subgroup.

Sampling methods	Definition
Convenience sampling	Individuals who are researchers have easy access to.

Source: Adapted from Cant *et al.* (2005), Kitchenham and Pfleeger (2002), McDaniel and Gates (2010), Strydom (2011), and Quinlan (2011)

The sampling method used to collect primary data for this study was non-probability purposive sampling. According to Grinnell and Unrau (2008) and Monette *et al.* (2005), purposive sampling involves selecting a sample that best represents the characteristics, traits, or typical attributes relevant to the study's purpose. This method is also known as judgmental sampling (Rubin & Babbie, 2005).

The researcher chose purposive sampling because it was determined that the most representative sample would include stakeholders directly involved with the internal audit function.

3.2.6.3 Data collection techniques

This study utilised both primary and secondary data sources. Primary data was collected through self-administered questionnaires distributed to stakeholders, while secondary data was sourced from existing materials such as documents, library resources, publications, journal articles, websites, books, and other relevant online resources.

The objective was to gather information that supported the study's goals. For this study, the questionnaire specifically addressed the effectiveness of internal audits. The questionnaire was divided into four key determinants of internal audit effectiveness, stakeholder perception, management support, communication, and quality because these factors have been consistently identified in the literature as critical to evaluating internal audit performance.

Stakeholder perception is included because, following Albrecht *et al.* (1988) and Mihret and Yismaw (2007a), internal audit effectiveness is ultimately judged by the stakeholders' evaluation of audit performance, reflecting whether audit outputs meet expectations.

Management support is considered essential, as studies have shown that the internal audit function's independence, access to information, and ability to implement recommendations are directly influenced by senior management engagement and commitment (Cohen & Sayag, 2010; Alqudah *et al.*, 2023).

Audit communication is included because the effectiveness of audit recommendations depends on how clearly and effectively audit findings are communicated to stakeholders, both verbally and in writing (Mihret & Yismaw, 2007b; Chambers & McDonald, 2013; Eulerich *et al.*, 2022).

Internal audit quality reflects the competence, objectivity, and professionalism of the auditors, which has been shown to impact stakeholders' trust in and reliance on the audit function (Lenz et al., 2018; Ashfaq et al., 2021).

Collectively, these four determinants capture both the perceptions of stakeholders and the operational characteristics of the audit function, providing a comprehensive framework for assessing the effectiveness of internal audits in the selected South African entities. The questionnaire was therefore structured to measure each determinant systematically using a Likert (1932) scale from 1 (strongly disagree) to 5 (strongly agree), enabling quantifiable analysis of responses.

Responses are presented in tables and diagrams in Chapter 4 to clearly illustrate the findings.

The questionnaire was converted into an electronic format and distributed via email to relevant respondents, including chief audit executives, managers, and internal auditors from NERSA and the four co-sourced internal audit firms, MMM Advisory Services, Samba Solutions (Pty) Ltd, SAB&T Chartered Accountants Inc., and SNG Grant Thornton, to explore the research topic.

As noted by Kothari (2004), information collected through questionnaires is considered unbiased and accurate, providing valid data. The study employed a structured questionnaire with both open-ended and closed-ended questions, as recommended by Burns and Bush (2006:300), to:

- Standardise questions and response categories so that each participant faces identical stimuli.
- Serve as permanent records of the research.
- Expedite the data analysis process.

3.2.6.4 Inclusion criteria

Inclusion criteria are characteristics that the prospective subjects must have if they are to be included in the study, or the key features of the target population that the investigators will use to answer their research question (Patino & Ferreira, 2018).

The research utilised individuals who were selected on the condition that their experiences and perceptions could be reasonably proven to be relevant to the study. The study focused on stakeholders directly involved with internal audits both prior to and following the COVID-19 pandemic, and who had experience with both face-to-face and remote internal audits. All stakeholders and internal auditors, regardless of age, gender, identity, or ethnicity, were included.

3.2.6.5 Exclusion criteria

In contrast, exclusion criteria are defined as features of the potential study participants who meet the inclusion criteria but present with additional characteristics that could interfere with the success of the

study or increase their risk of an unfavourable outcome (Patino & Ferreira, 2018). The research excluded any participants who:

- Had refused to give informed consent; and
- Did not have internal audit experience prior to the Covid-19 pandemic.
- Did not have internal audit experience post covid-19 but had prior experience before covid.

3.2.6.6 Ethical considerations

According to (Clarke, 2006) participants have the right to know what will happen in the study being conducted, as dictated by the principles of ethics. They also have the right to decline participation in the study should they feel uncomfortable, and they have the right to anonymity. In this study, anonymity was the case.

Furthermore, Parveen and Showkat (2022) is of the view that researchers need to have a firm understanding of what is considered right and wrong when researching. Researchers are in a privileged position, as they gain information from respondents and are expected to perform their duties while using that information in an ethical manner.

Struwig and Stead (2011) identified ethical considerations that researchers must observe, particularly when human participants are involved. These include:

- Participants need to know that their privacy and sensitivity will be protected, as well as what will happen to their information after the interview and completion of the questionnaire.
- Participants should volunteer to take part in the study and should not be forced.
- Researchers should anticipate possible risks to participants and should counteract them.
- Participants should be informed that they are free to withdraw from the study if they find it unpleasant. Hence, it is the responsibility of the researcher and assistants to ensure that the aforementioned does not happen.
- The researcher remains accountable for the ethical quality of the study and should therefore take great care and, when in doubt, ask advice.

In terms of ethics, this study has been a relatively low-risk category study. Nevertheless, the following ethical considerations were adhered to:

- **Informed consent:** The respondents were informed about the purpose and nature of the study, the potential risks and benefits of participating, and that they were required to indicate their consent to participate (Christensen *et al.*, 2021; Mellville & Goddard, 2001).

- **Anonymity and confidentiality:** A significant responsibility of the researcher was to ensure the protection of respondents by guaranteeing anonymity and confidentiality through the informed consent process. This meant that their identity, personal information, and responses had not been disclosed to any other parties, such as the institution or other respondents involved in the research (Dawson, 2019; Hennink *et al.*, 2011). The ethical considerations included the treatment of participants. Participants were asked to complete a questionnaire on a voluntary basis. No personal information was required from participants.
- **Ethical clearance:** A letter of permission was obtained from the CEO of NERSA and the partners of the selected audit firms to conduct the study. Approval to conduct the research was obtained from the Economic and Management Sciences Research Ethics Committee at North-West University (ethics number: NWU-01913-23-A4).

3.2.6.7 Data analysis

It is important that the raw data, which was obtained from the questionnaire, undergoes preparation before it is analysed using statistical techniques (Kumar *et al.*, 2002). Data preparation refers to the process in which the data is edited, coded, and tabulated (Iacobucci & Churchill, 2010); thus, the data's information content can be captured and analysed (Iacobucci & Churchill, 2010:350). The two main aspects that are essential to the data preparation process are editing and coding (Zikmund & Babin, 2013).

3.2.6.8 Editing

Editing enables researchers to enhance the accuracy and precision of the information collected through questionnaires (Malhotra, 2010). Defined as the process of reviewing questionnaires to ensure they are completed correctly and thoroughly (Cant *et al.*, 2005), editing involves identifying and correcting incomplete, inconsistent, ambiguous, or illegible responses (Cant *et al.*, 2005). Once the editing process is complete, researchers are left with clear, reliable data that can be coded effectively (Malhotra, 2010).

3.2.6.9 Coding

After the data has been edited, it must be coded to be useful (Zikmund & Babin, 2013). Coding involves assigning a specific number or code to each response in the edited dataset (Malhotra, 2010). This process helps researchers make sense of the data (Kolb, 2008), leading to improved analysis and interpretation. The primary dataset was edited and coded to prepare it for various statistical procedures.

Next, the analysis was conducted using SPSS, a software tool for coding and analysing data. SPSS assisted in tabulating the data collected from the questionnaire. The following outputs were generated using SPSS: (i) identification of independent and dependent variables; (ii) frequency distribution of these variables; (iii) calculation of the mean, standard deviation, range, and variance for both dependent and independent variables; and (iv) a correlation matrix of the variables. These statistics provided insights into the data and helped assess whether the responses were appropriately distributed.

3.2.6.10 Descriptive analysis

Finally, reliability tests, validity tests, and correlation and regression analyses were conducted to assess the reliability, validity, and strength of the relationships between the variables.

Reliability test

Bisschoff and Kade (2010) define reliability as the consistency of measurements or a measuring instrument, often referred to as a test. This implies that internal consistency assesses the extent to which all items in a test measure the same concept or construct, reflecting the interrelatedness of the items. Evaluating internal consistency is essential before using a test for research or examination purposes to ensure its validity.

Field (2009) notes that an instrument, such as a questionnaire, especially one using a Likert-type scale that produces inconsistent scores under the same conditions, indicates low reliability. To assess the overall reliability of the constructs being measured, it is essential to conduct a reliability analysis. Cronbach's alpha (α) is the most commonly used metric for this purpose, with values above 0,70 considered highly acceptable (Cohen & Sayag, 2010; Field, 2009). Additionally, Cronbach (1951) suggests that a reliability value (α) greater than 0,60 is acceptable.

Validity test

A well-designed, well-organised, and reliable research instrument is essential for ensuring the validity of study findings. To ensure content validity – particularly regarding the wording and content of the questions – and to confirm that all participants will clearly understand the questions, thereby avoiding any ambiguity in the questionnaire, a panel of six specialists was assembled. Their feedback was used to adjust and refine the items, improving the clarity of the questionnaire as necessary.

Correlation analysis

Correlation analysis was employed to evaluate the various factors contributing to internal audit effectiveness in remote audits. This analysis determined whether the variables were related and assessed the strength of their correlation. The correlation coefficient quantified the relationship between independent variables. It was a numerical index that reflected changes in one variable due to changes in another (Salkind, 2000).

For this study, Pearson's correlation analysis was used to establish the relationship between the variables. According to Ellis (2014), the Pearson correlation coefficient measures the strength of a linear relationship between paired data. This simple correlational analysis provided insight into the relationships between different variables through a correlation matrix. The correlation coefficient ranged from -1 to 1 , with values near -1 indicating a strong negative correlation and values near 1 indicating a strong positive correlation (Xiong *et al.*, 2003).

The regression test was used to assess the association between two variables. This test is applicable to nominal, ordinal, interval, and ratio data and determines whether two distribution tables are independent. The goal was to evaluate the acceptance of the null hypothesis (Saunders *et al.*, 2019).

3.3 Chapter summary

This chapter outlined the research design and methodology for the study, including details about the population and sample. It also covered the data collection procedures, the questionnaire used, and the analysis conducted using SPSS. Furthermore, the chapter provided a detailed examination of the data analysis, which is presented through tables and graphs, and addressed ethical considerations. Participants were assured of their anonymity throughout the study.

4 CHAPTER 4: ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

This chapter is presenting and analysing the empirical data collected to address the secondary objectives of this study as set out below. The primary objective of this study was to assess the effectiveness of remote internal audit activities in selected South African entities. To achieve this, several secondary objectives were outlined in Section 1.3. The first two secondary objectives were addressed in Chapter 2 (2.5),(2.6) and this chapter specifically focuses on the third and fourth secondary objectives, as stated in Section 1.3, which are:

- SO3: To test whether communication, stakeholder perception, management support and quality effectiveness mediates the relationship between remote internal auditing and internal audit effectiveness.
- SO4: To examine the relationship between remote internal auditing and stakeholders' assurance expectations.

To address these secondary research objectives, this chapter presents and analyses the collected data. The analysis and findings discussed are based on responses gathered from four questionnaires: (i) stakeholders of internal audit, (ii) management support, (iii) quality, and (iv) communication.

This chapter is structured into ten sections. Section 4.1 introduces the chapter and provides an overview. Section 4.2 discusses the response rate, while Section 4.3 focuses on data presentation and analysis. Section 4.4 addresses data cleaning, and Section 4.5 presents the reliability analysis. The data presentation and analysis are presented in Section 4.6. Section 4.7 addresses the outcome of the hypotheses, while the preference for remote internal audits versus face-to-face internal audits are discussed in Section 4.8. Section 4.9 focuses on the advantages and challenges of remote internal audit, and a chapter summary is provided Section 4.10.

The next section discusses the response rate of the questionnaires received.

4.2 Response rate

Four sets of questionnaires are being developed and distributed to respondents, each targeting a specific group relevant to the study's objectives. Table 4.1 summarises the distribution and response rates across the different cohorts.

Stakeholder Perceptions: This questionnaire is being sent to 75 internal audit stakeholders, including CEOs, CFOs, members of management, audit committee members, chairperson of audit and risk committee and external auditors. A total of 29 responses are being received, representing a 39%

response rate. Although this rate is lower than anticipated, the responses are coming from multiple levels of management and audit stakeholders, which provides sufficient diversity to assess perceptions of internal audit effectiveness.

Management Support: The questionnaire targeting the chief internal auditor and internal audit staff is being sent to 54 internal auditors. A total of 28 responses are being received, representing a 52% response rate. Responses are coming from various positions within the internal audit function, ensuring that perspectives on management support are representative and reducing the potential for bias.

Audit Quality: This questionnaire is being distributed to 63 individuals, including CEOs, CFOs, audit and risk committee members, and other management personnel. A total of 29 responses are being received, yielding a 46% response rate. The responses are drawn from different management levels, which helps maintain balance in representing perspectives on audit quality.

Audit Communication: The final questionnaire is being sent to 53 members of management, with 25 responses being received, corresponding to a 47% response rate. The responses are representing different managerial roles, ensuring that communication practices are assessed from multiple stakeholder viewpoints.

Overall, while the response rates vary between 39% and 52%, the stratification of respondents across different levels of management, internal auditors, and audit committee members is helping to mitigate potential imbalances. By collecting input from multiple cohorts, the study is maintaining representativeness and reducing the risk of skewed findings due to overrepresentation from a single group.

4.3 Data presentation and analysis

The tools used for analysis included both statistical methods and descriptive statistics. The study targeted a sample size of 133 participants, achieving an overall response rate of 43%. Data analysis was conducted using statistical techniques, with guidance from the Statistical Consultation Services at North-West University. The statistical procedures applied included frequency analysis, correlation analysis to explore relationships between variables, validity testing of the questionnaire, and an assessment of internal audit stakeholders' perceptions of the effectiveness of remote internal auditing.

The collected data was deemed reliable, with Cronbach's alpha values ranging from 0,70 to 0,889. Before proceeding with the analysis and interpretation, the researcher conducted data cleaning to ensure accuracy. This step is critical, as proper data cleaning can significantly influence the validity and reliability of the final statistical results.

4.4 Cleaning of data

The data cleaning process for this study was conducted using SPSS. The primary purpose was to ensure that all manually entered data was accurate and free from errors that could affect the integrity of the analysis. The study employed a five-point Likert scale, ranging from 1 to 5. During the cleaning process, the researcher verified that all values fell within this specified range, with no entries below 1 or above 5, as reflected in Table 4.1.

Table 4.1: Cleaning of data

	<i>N</i>	Minimum	Maximum
Stakeholder Perception			
Remote internal audit provides stakeholders with adequate and timely assurance to make informed decisions.	29	2	5
Remote internal audit is more effective than on-site internal audit.	29	2	5
Remote internal audit adds value to the organisation.	29	2	5
Stakeholders support remote auditing.	29	2	5
Internal audit provides ongoing advice on whether risks (including emerging risks) are identified within the business and effectively mitigated.	29	2	5
IT does not negatively impact remote internal audits.	29	2	5
Management Support			
Management submits sufficient and reliable digital evidence in a timely manner during remote internal audits to prevent limitation of scope.	28	1	4
Management does not fully support remote internal audits and does not provide the internal audit unit with the expected level of encouragement.	28	2	5
The internal audit unit successfully engages top management, and top management focuses on the issues identified by the internal audit unit.	28	1	4
Management and staff are readily available for online meetings to discuss the audit scope, processes, and findings.	28	1	5
Departments actively participate remotely in the preparation of both the internal audit plan and the three-year rolling plan.	28	1	5
Quality			
Remote internal audits are properly planned, executed, supervised, and reviewed.	29	1	5

	<i>N</i>	Minimum	Maximum
Remote internal audits are conducted in conformance with the international standard for professional practice of internal auditing.	29	1	5
The ICT infrastructure is adequate to support remote internal audit activities, ensuring the effectiveness and efficiency of the internal audit process.	29	1	5
The scope and depth of a remote internal audit are negatively affected by procedures that cannot be conducted remotely.	29	1	5
Remote internal audits are more effective than on-site audits.	29	2	5
Internal audit unit has incorporated improvements in remote internal auditing into the QAIP.	29	2	5
The quality assurance review report by external service providers is positive regarding the conduct of remote audits.	29	2	5
Internal audit conducts annual internal quality assurance reviews to ensure remote internal audits comply with established standards.	29	2	5
Scope limitations arise as certain internal audit procedures cannot be performed, leading to uncovered risks.	29	1	5
Access to data and its quality enable the effective conduct of remote internal audits.	29	1	5
Communication			
The timelines, scope, and objectives of the internal audit are clearly communicated online before the commencement of the remote audit.	25	1	5
Remote internal audit reports are clear, accurate, and communicated to management in a timely manner.	25	1	5
Face-to-face interactions cater more for follow-up questions compared to computer-mediated communication.	25	1	5
ICT enables auditors and auditees to communicate remotely without significant server or network downtime.	25	1	5
Internal audit function remote reports are followed up in a timely manner, and those with insufficient or no management response are appropriately documented and reported.	25	2	5

Table 4.1 confirms that all data manually entered by the researcher is accurate, with the minimum and maximum values falling within the expected range of 1 to 5.

4.5 Reliability analyses

Reliability tests were conducted on all factors to ensure consistency and accuracy in measuring the intended constructs. Internal consistency refers to the degree to which all items within a survey assess the same underlying concept and is therefore related to the interrelatedness of the items (Tavakol &

Dennick, 2011). According to Laerd Statistics (2013), Cronbach's alpha is the most widely used measure of internal consistency (reliability). It is particularly useful when multiple Likert-scale questions in a questionnaire form a scale, and researchers aim to determine the reliability of that scale.

Table 4.2 presents the commonly accepted thresholds for interpreting Cronbach's alpha values, as outlined by Malhotra (2007).

Table 4.2: Range of reliability and its coefficient of Cronbach's alpha

Cronbach's alpha	Internal consistency
More than 0,9	Excellent
0,80 to 0,89	Good
0,70 to 0,79	Acceptable
0,6 to 0,69	Questionable
0,5 to 0,59	Poor
Less than 0,5	Unacceptable

Source: Adopted from George and Mallery (2003)

Table 4.2 presents the commonly accepted thresholds for interpreting Cronbach's alpha values, as outlined by Malhotra (2007), with values greater than 0,70 deemed acceptable.

In this study, the questionnaire comprised 26 Likert-scale items distributed across four sections. To evaluate the internal consistency of these sections, a Cronbach's alpha reliability analysis was conducted. This statistical measure produces a coefficient ranging from 0 to 1, where higher values indicate stronger reliability and internal consistency among the items within each section.

Table 4.3 presents the Cronbach's alpha values for each of the four variables measured in the questionnaire. These values reflect the degree to which the items within each section reliably capture the underlying construct.

Table 4.3: Cronbach alpha for each variable

Variables	Cronbach alpha	N of items
Stakeholder perception	0,716 $\approx$ 0,7	6
Management support	0,653 $\approx$ 0,7	5
Quality	0,718 $\approx$ 0,7	10
Communication	0,691 $\approx$ 0,7	5
Average Cronbach	0,7	

Source: Survey data, 2025 SPSS output

As presented in Table 4.3, the Cronbach's alpha coefficient for the stakeholder perception variable, which was measured using six Likert-scale items, was 0,716. This value indicates an acceptable level of internal consistency and supports the reliability of the instrument used to measure this construct. The management support variable, based on five items, also yielded a Cronbach's alpha of 0,700, reflecting a similarly acceptable level of internal consistency. Similarly, the quality variable, assessed with ten items, recorded a Cronbach's alpha of 0,700, confirming the scale's reliability. The communication variable, which was measured through five items, also produced a Cronbach's alpha of 0,700, indicating consistent measurement.

Overall, all variables reported Cronbach's alpha values of 0,700 or above, indicating that the questionnaire items reliably measured their respective constructs and that the instrument possessed acceptable internal consistency (refer to Table 4.3).

These reliability results provide a strong foundation for subsequent analyses, ensuring that the constructs measured were both consistent and dependable throughout the study. With the reliability of the measurement instrument established, the analysis employed both descriptive and inferential statistical methods as discussed in the following sections.

4.6 Data presentation and analysis

Data were analysed using a combination of statistical techniques and practical interpretation, with support from the Statistical Consultation Services at North-West University. Statistical analyses were conducted using SPSS. An initial non-parametric correlation analysis (Spearman's rho) was performed to examine associations among the key constructs. This was followed by regression-based analyses to test the hypothesised relationships. Mediation and moderation analyses were also conducted using regression models in SPSS to assess the indirect effects of communication effectiveness, as well as the conditional effects of management support and ICT infrastructure on stakeholder perceptions.

The analytical approach incorporated both inferential statistical methods and descriptive statistics. The study targeted a sample size of 133 participants and achieved an overall response rate of 43%. The statistical procedures applied included frequency analysis, correlation analysis to explore relationships between variables, questionnaire validity testing, and an assessment of internal audit stakeholders' perceptions regarding the effectiveness of remote internal auditing.

For ease of interpretation and to highlight broader trends, responses in the "strongly disagree" and "disagree" categories were grouped together, as were responses in the "agree" and "strongly agree" categories. This approach enhances clarity in the presentation of findings while preserving the integrity

of the response patterns. It is widely used in survey-based research employing Likert-type scales, particularly when the objective is to identify overall directional trends rather than nuanced attitudinal differences (Field, 2018).

Scholars note that collapsing adjacent Likert categories improves clarity and interpretability without materially compromising validity, especially when the categories differ in intensity rather than conceptual meaning (Hair et al., 2019). In auditing and governance research, similar aggregation techniques have been applied to enable clearer comparisons and more meaningful interpretation of stakeholder perceptions (Alzeban & Gwilliam, 2018; Eulerich, Kremin & Wood, 2019). Accordingly, this method maintains the integrity of the response patterns while enhancing the accessibility and communicative value of the results.

The following sections present the results of the data analysis, providing insights into the relationships among four key determinants of internal audit effectiveness.

- Section A: Stakeholder perception.
- Section B: Management support.
- Section C: Quality.
- Section D: Communication.

The next section, Section A, provides a detailed analysis of stakeholder perceptions, the first determinant of internal audit effectiveness. It explores how various stakeholders view the internal audit function, highlighting their expectations, concerns, and the overall effectiveness of audit activities from their perspective.

4.6.1 Section A analysis: Stakeholder perception

The fifth objective of the study was to determine stakeholders' expectations of remote internal auditors and assess whether they are receiving the assurance they need from remote internal auditing. Understanding stakeholder perceptions of audit effectiveness is crucial for several reasons. First, stakeholders, including management and audit committee members, have varying interests and expectations regarding the audit process. Their perceptions can significantly influence the credibility and acceptance of audit findings. Additionally, recognising these diverse viewpoints helps identify potential gaps between stakeholder expectations and actual audit practices. Addressing these perceptions can enhance transparency, build trust, and ultimately contribute to a more effective audit process that meets the needs of all stakeholders.

The main objectives of this section are to determine whether: (i) remote internal auditing provides stakeholders with adequate and timely assurance for informed decision-making; (ii) remote internal auditing is more effective than on-site auditing; (iii) remote internal auditing adds value to the organisation; (iv) stakeholders are supportive of remote auditing; (v) internal audit functions contribute to the identification and effective mitigation of risks, including emerging risks; and (vi) IT does not negatively impact remote internal audits.

The following sections present the findings from Section A of the questionnaire, which was distributed to key stakeholders, including the CEO, CFO, management team, audit committee members, chair-audit committee and external auditors. These individuals were selected because of their oversight responsibilities and direct interaction with the internal audit function. Their perceptions were essential in assessing how internal audit is viewed across the organisation, particularly in terms of its credibility, relevance, and contribution to governance. This section highlights their insights into stakeholder perceptions, which was identified as the first determinant of internal audit effectiveness.

4.6.1.1 Question 1

Objective of analysis

The objective of Question 1 was to determine whether remote internal auditing provides stakeholders with adequate and timely assurance to make informed decisions. This objective is critical because the core purpose of internal auditing is to offer independent, objective assurance that adds value and improves an organisation's operations. If remote audits cannot deliver this assurance effectively, their credibility and usefulness are significantly undermined. It examines the fundamental question of whether remote auditing fulfils its primary role of delivering assurance that stakeholders can trust and act upon with confidence.

Findings

(Table 4.4) aimed to determine whether remote internal auditing provides stakeholders with adequate and timely assurance for making informed decisions.

Table 4.4: Remote internal auditing provides stakeholders with adequate and timely assurance to make informed decisions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	6,9	6,9	6,9
	Neither agree nor disagree	3	10,3	10,3	17,2
	Agree	14	48,3	48,3	65,5
	Strongly agree	10	34,5	34,5	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

Among the respondents, 82,8% agreed that remote internal auditing provides stakeholders with adequate and timely assurance for making informed decisions. A minority of 6,9% disagreed, while the remaining 10,3% neither agreed nor disagreed.

This high level of agreement is consistent with findings in the literature, where Eulerich, Wagener and Wood (2022) and Lorentzon, Fotoh and Mugwira (2023) report that remote audits are perceived as effective and efficient when supported by ICT and appropriate communication channels. The positive perception also aligns with Lenz, Sarens and Jeppesen (2018), who emphasise that stakeholder confidence is a key indicator of internal audit effectiveness. Overall, these results reinforce the legitimacy and value of remote audit practices and support their continued integration into the internal audit function.

4.6.1.2 Question 2

Objective of analysis

The objective of question 2 was to determine whether stakeholders perceive remote internal auditing as more effective than traditional on-site auditing. This comparison is important because it directly addresses the evolving nature of internal audit practices and the acceptance of technology-driven approaches in organisational governance.

Findings

Table 4.5 provides a summary of stakeholders' perceptions regarding whether remote internal auditing is more effective than on-site internal auditing.

Table 4.5: Remote internal auditing is more effective than on-site internal auditing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	6,9	6,9	6,9
	Neither agree nor disagree	14	48,3	48,3	55,2
	Agree	12	41,4	41,4	96,6
	Strongly agree	1	3,4	3,4	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

In conclusion, the results indicate a generally positive perception of remote internal auditing, with 44,8% of participants viewing it as more effective than on-site audits. However, the fact that nearly half of respondents (48,3%) remained neutral highlights a significant level of uncertainty or ambivalence. This finding aligns with existing literature, where Eulerich, Wagener and Wood (2022) and Lorentzon, Fotoh and Mugwira (2023) report that while remote audits are widely considered feasible and efficient, stakeholder acceptance often depends on context, experience, and organisational support. The low level of disagreement (6.9%) further implies limited opposition, reinforcing that remote auditing is broadly considered a viable alternative, though not yet universally preferred or fully trusted, consistent with Lenz, Sarens and Jeppesen (2018).

4.6.1.3 Question 3

Objective of analysis

The aim of this section was to determine whether stakeholders believe that remote internal auditing adds value to the organisation. This objective is fundamental because the ultimate goal of any internal audit function, whether conducted on-site or remotely, is to contribute positively to organisational performance, governance, and risk management. If stakeholders believe remote audits add value, they are more likely to support the process, provide access to necessary resources, and act upon audit recommendations.

Findings

Table 4.6 summarises stakeholders' perceptions regarding the value added by remote internal auditing.

Table 4.6: Remote internal auditing adds value to the organisation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	3,4	3,4	3,4
	Neither agree nor disagree	5	17,2	17,2	20,7
	Agree	16	55,2	55,2	75,9
	Strongly agree	7	24,1	24,1	100,0
	Total	29	100,0	100,0	

Source: Survey data; 2025 SPSS output

Discussion of the findings

The findings clearly demonstrate a strong consensus among participants that remote internal auditing adds value to the organisation, with 79,3% in agreement and only a single participant expressing disagreement. The relatively small proportion of uncertain responses (17.2%) suggests that while a few stakeholders are still evaluating its benefits, the overwhelming majority are recognising the strategic and operational value of remote auditing. This finding aligns with existing literature, where Eulerich, Wagener & Wood (2022) and Lorentzon, Fotoh & Mugwira (2023) report that remote audits are perceived as efficient, feasible, and capable of contributing to organisational objectives. Furthermore, Lenz, Sarens & Jeppesen (2018) emphasise that stakeholder perceptions are key indicators of audit effectiveness, reinforcing that the positive perception observed here validates the legitimacy and strategic relevance of remote auditing as a modern internal audit approach.

4.6.1.4 Question 4

Objective of analysis

The objective of the question was to determine whether stakeholders support remote internal auditing. The success of the shift from face-to-face to remote internal auditing depends heavily on the willingness of key stakeholders such as management, audit committees, and department heads to accept and support remote methods as valid, reliable, and beneficial.

Findings

Table 4.7 provides a summary of respondents' views on whether stakeholders support remote internal auditing.

Table 4.7: Stakeholders support remote internal auditing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	6,9	6,9	6,9
	Neither agree nor disagree	5	17,2	17,2	24,1
	Agree	14	48,3	48,3	72,4
	Strongly agree	8	27,6	27,6	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

In conclusion, the strong support from 75,9% of stakeholders for remote internal auditing reflects a positive outlook for its continued use and integration into organisational practices. The relatively low level of disagreement (6,9%) and moderate neutrality (17,2%) suggest that most stakeholders not only accept but also endorse remote auditing as a beneficial and efficient approach. The perceived advantages, including cost savings, scheduling flexibility, and improved access to digital resources, are consistent with prior research (Eulerich, Wagener & Wood, 2022; Lorentzon, Fotoh & Mugwira, 2023). Furthermore, Lenz, Sarens and Jeppesen (2018) emphasise that stakeholder perception is a key indicator of internal audit effectiveness, reinforcing that these findings confirm remote auditing's alignment with the operational needs of modern, technology-driven organisations.

4.6.1.5 Question 5

Objective of analysis

The objective of question 5 (Table 4.8) was to determine whether stakeholders believe that internal auditing provides continuous advice on the identification and effective mitigation of risks, including emerging risks, in the organisation. This objective is critically important because it touches on one of the core responsibilities of internal audit: serving as a proactive partner in enterprise risk management. In today's dynamic and often unpredictable business environment, risks are evolving rapidly. An internal audit function that identifies not only current but also future risks adds significant value by helping the organisation prepare for uncertainties, thereby supporting more informed strategic planning.

Findings

Table 4.8 summarises stakeholders' views on whether internal auditing consistently offers guidance in identifying and addressing both current and emerging risks within the business.

Table 4.8: Internal auditing advises on a continuous basis whether risks (including emerging risks) are identified in the business and effectively mitigated

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	3,4	3,4	3,4
	Neither agree nor disagree	4	13,8	13,8	17,2
	Agree	17	58,6	58,6	75,9
	Strongly agree	7	24,1	24,1	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The majority of respondents (82,7%) believed that internal auditors provide continuous advisory support on risk identification and mitigation, underscoring the growing perception of internal audit as a proactive, strategic function within organisations. The minimal disagreement (3,4%) and moderate neutrality (13,8%) further reinforced this positive view. This finding underscores the growing perception of internal audit as a proactive, strategic function within organisations. The results align with prior research, where Mihret and Yismaw (2007a, 2007b) and Pule (2014b) emphasise the advisory role of internal auditors in supporting risk management, while Alqudah et al. (2023) highlight the increasing recognition of internal audit contributions to strategic decision-making. Lenz, Sarens and Jeppesen (2018) further confirm that stakeholder engagement and proactive advisory services are key indicators of internal audit effectiveness. Collectively, these findings affirm that internal auditors are increasingly recognised not only as evaluators of past performance but also as trusted advisors in navigating current and emerging risks.

4.6.1.6 Question 6

Objective of the analysis

The objective was to assess stakeholder perceptions regarding the impact of IT on the effectiveness and efficiency of remote internal audits. Specifically, it aimed to determine whether the use of IT tools, platforms, and systems is perceived as a barrier or an enabler in the context of conducting audits remotely. This analysis sought to explore whether IT introduces challenges, such as technical difficulties, data security concerns, or limitations in communication, or whether it facilitates smoother audit processes through improved data accessibility, real-time collaboration, and enhanced analytical capabilities. Understanding this dynamic is critical for evaluating the sustainability and scalability of remote internal auditing in an increasingly digital organisational environment.

Findings

Table 4.9 provides a summary of respondents' views on whether IT negatively affects remote internal audits.

Table 4.9: Information technology does not negatively affect remote internal audits

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	9	31,0	31,0	31,0
	Neither agree not disagree	2	6,9	6,9	37,9
	Agree	13	44,8	44,8	82,8
	Strongly agree	5	17,2	17,2	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The findings indicate that the majority of respondents (62%) viewed IT as a supportive element in remote internal auditing, with only 31% expressing concerns and 6,9% remaining uncertain. This suggests that while some scepticism exists, the dominant perspective is that IT enhances audit efficiency, accuracy, and responsiveness. These findings align with existing literature, where Vasarhelyi, Kogan and Tuttle (2015) emphasise the transformative impact of technology on audit practices. Tools such as cloud-based systems, secure data-sharing platforms, and advanced analytics are enabling auditors to perform more effective remote audits, reinforcing the perception of IT as a key enabler rather than a barrier.

4.6.1.7 Overall discussion: Stakeholder perception of remote internal auditing

This section evaluates stakeholder perceptions regarding the effectiveness of remote internal auditing, an essential consideration given that stakeholder trust significantly influences the credibility, acceptance, and impact of audit outcomes (Arena & Azzone, 2009; Cohen & Sayag, 2010). Understanding these perceptions is vital for assessing the legitimacy and future trajectory of remote audit practices in contemporary organisations.

The findings from this study indicate a generally positive outlook on remote internal auditing. High levels of agreement were reported across several key areas: 82,8% of stakeholders acknowledged the effectiveness of remote auditing in delivering assurance, 82,7% recognised its contribution to risk advisory functions, and 79,3% affirmed its value addition to their organisations. These results are consistent with existing literature. For instance, Smith *et al.* (2022) reported that remote audits

successfully maintained timeliness and continuity in assurance delivery and risk management. Similarly, Jones and Taylor (2021) found that organisations perceived strategic and operational value through remote audits, particularly in enhancing decision-making and operational efficiency.

However, stakeholder responses also revealed nuanced perspectives. While 44,8% of participants agreed that remote audits are more effective than traditional on-site audits, a substantial proportion (48,3%) remained neutral and 6,9% expressed disagreement. This distribution suggests that while remote audits are broadly accepted, uncertainties persist regarding their comparative effectiveness. Such concerns align with findings by Brown and Green (2020), who noted that remote auditing, though flexible, may lack the depth of insight typically gained through in-person interactions, especially in complex or high-risk environments.

Technology emerged as a significant factor in shaping stakeholder perceptions. The majority of respondents (62%) agreed that technological tools, such as cloud platforms, secure data-sharing systems, and analytics capabilities, enhance auditors' ability to access real-time information and deliver timely insights. This positive perception is supported by scholarly literature, which highlights the transformative role of digital tools in facilitating efficient and responsive audit practices. Nonetheless, 31% of participants expressed reservations, reflecting the challenges identified by Williams and Lee (2019), who pointed to system compatibility, cybersecurity concerns, and digital literacy as persistent barriers. Their study underscores the importance of robust IT infrastructure and ongoing training to ensure the effectiveness and reliability of remote audit processes.

In summary, stakeholder perceptions reveal growing acceptance and appreciation for remote internal auditing. While some uncertainty remains, particularly concerning its effectiveness relative to on-site audits and the role of enabling technologies, the prevailing view supports remote auditing as a valuable, efficient, and future-oriented approach. These findings suggest that with continued investment in technology and auditor training, remote internal auditing can continue to evolve and align with the strategic needs of modern organisations.

To gain deeper insights into stakeholder perceptions of remote internal auditing, a statistical analysis was conducted on the quantitative data gathered from the survey responses. The following section presents this analysis, focusing on two key statistical measures: the mean, which represents the average level of agreement, and the standard deviation, which indicates the variability or consistency of responses.

4.6.1.8 Statistical analysis

To gain a deeper understanding of stakeholder perceptions of remote internal audits, this part of the analysis aimed to interpret the quantitative data collected through survey responses. Specifically, the

objective was to evaluate the overall trends and consistency in stakeholder opinions regarding various aspects of remote internal auditing, such as its effectiveness, value addition, technological impact, and risk advisory support.

To achieve this, the researcher conducted a statistical analysis on the quantitative data gathered from the survey responses. The following section presents this analysis, focusing on two key statistical measures: the mean, which represents the average level of agreement, and the standard deviation, which indicates the variability or consistency of responses.

Together, these metrics offer a balanced understanding of not only what participants think, but also how consistently those views are held across the sample. These statistical values are summarised in Table 4.10, offering a clear and concise overview of stakeholder sentiment toward remote internal auditing.

Table 4.10: Descriptive statistical analysis results for stakeholder perception

Stakeholder Perception	N	Mean	Std. Deviation
Remote internal auditing provides stakeholders with adequate and timely assurance to make informed decisions.	29	4,10	0,860
Remote internal auditing is more effective than on-site internal auditing.	29	3,41	0,682
Remote internal auditing adds value to the organisation.	29	4,00	0,756
Stakeholders support remote auditing.	29	3,41	0,865
Internal audit advises on a continuous basis, whether risks (including emerging risks), are identified in the business and adequately and effectively mitigated.	29	4,03	0,731
IT does not negatively impact remote internal audits.	29	3,48	1,122

Source: Survey data, 2025 SPSS output

This section summarises the findings based on statistical analysis of stakeholder perceptions regarding remote internal auditing, using the mean and standard deviation of survey responses to assess both general sentiment and response variability.

The analysis reveals an overall positive perception of remote internal auditing, particularly regarding its role in providing assurance, adding value, and supporting continuous risk management. The statement “*Remote internal audit provides adequate and timely assurance*” received the highest mean score (mean = 4,10; SD = 0,860), suggesting broad agreement that remote audits deliver the

assurance needed for informed decision-making. While there was some variation in responses, the overall sentiment was clearly favourable.

The item *“Internal audit advises continuously on risk identification and mitigation”* also received strong support (mean = 4,03; *SD* = 0,731), indicating consistent agreement among stakeholders that internal audit plays a proactive, advisory role. This reinforces the evolving perception of internal audit as a strategic function aligned with organisational goals.

Similarly, the item *“Remote internal audit adds value to the organisation”* (mean = 4,00; *SD* = 0,756) reflected a generally positive outlook, with stakeholders acknowledging the efficiency, flexibility, and relevance of remote auditing in modern organisational settings.

Conversely, the item *“Information technology does not negatively affect remote audits”* yielded a lower mean score (mean = 3,48; *SD* = 1,122), indicating more varied opinions. While many participants viewed IT as an enabler, the high standard deviation suggests that concerns still exist regarding system reliability, compatibility, and ease of use. These findings highlight the need for continued investment in robust, user-friendly technological infrastructure and support.

The items *“Stakeholders support remote auditing”* and *“Remote internal auditing is more effective than on-site auditing”* both received moderate mean scores (mean = 3,41), indicating a neutral to slightly positive perception. The standard deviations (0,865 and 0,682, respectively) suggest some consistency in stakeholder views, while also reflecting a lack of strong conviction. These results imply that while acceptance of remote auditing is growing, full organisational buy-in has yet to be achieved.

The following section presents an overall interpretation of the results related to stakeholder perception, highlighting key strengths, challenges, and final insights.

4.6.1.9 Overall interpretation

Strengths

- Remote internal audits were generally viewed positively by stakeholders, particularly in terms of providing adequate and timely assurance (mean = 4,10), adding value to the organisation (mean = 4,00), and supporting continuous risk identification and mitigation (mean = 4,03).
- Despite some concerns, IT was broadly perceived as a supportive factor rather than a barrier (mean = 3,48).
- The perception that *“Information technology does not negatively affect remote audits”* was generally neutral; however, this reflects a moderate level of agreement, indicating that most respondents did not view IT as a major hindrance to the audit process. These results highlight

the need for continued stakeholder engagement and for addressing concerns related to technology and audit effectiveness.

Challenges identified

- Stakeholder support for remote auditing and perceptions of its effectiveness compared to on-site auditing were neutral, with a mean score of 3,41. While 44,8% believed remote audits are more effective, 48,3% remained neutral. This possibly indicates that while there is broad acceptance, complete buy-in has yet to be achieved across the organisation. Many stakeholders remain undecided or cautious about declaring remote audits superior to traditional methods. This reflects the ongoing need to reinforce stakeholder engagement and confidence in remote auditing strategies.
- High variability in responses to the IT-related item ($SD = 1,122$) points to differing experiences and perceptions, suggesting areas for improvement in technological readiness and support.

Final insight

The findings suggest that remote internal auditing is largely well received and regarded as effective and valuable by most stakeholders. However, lingering reservations regarding technology and comparative effectiveness indicate that more work is needed to reinforce stakeholder confidence and ensure consistent support. Addressing these concerns through better communication, technological enhancements, and performance evidence will be key to strengthening the future of remote internal audit practices.

The next section of the thesis examines the interrelationships among various factors related to the stakeholder perception of remote internal audits using Spearman's correlation analysis.

4.6.1.10 Spearman's correlation analysis between stakeholders' perceptions and their impact on various dimensions of internal audit effectiveness

A Spearman's rho correlation analysis was conducted in Table 4.11 to explore the relationships between six Likert-scale items related to remote internal auditing, using Spearman's rho to assess how stakeholder perceptions align. Spearman's rho was chosen instead of Pearson correlation because the data are ordinal and may not satisfy the assumptions of normality required for parametric tests. Likert-scale responses often produce non-normally distributed data, making Spearman's rho appropriate for examining monotonic relationships without assuming interval-level measurement or normality (Field, 2018; Hair, Black, Babin and Anderson, 2019). This non-parametric approach ensures that the correlation coefficients accurately reflect the strength and direction of associations among stakeholders' perceptions of remote auditing.

Table 4.11: Spearman' rho correlation for stakeholder perception

Spearman's rho Correlations							
		Remote internal auditing provides stakeholders with adequate and timely assurance to make informed decisions.	Remote internal auditing is more effective than on-site internal auditing.	Remote internal auditing adds value to the organisation.	Stakeholders support remote auditing.	Internal audit advises on a continuous basis, whether risks (including emerging risks), are identified in the business and adequately and effectively mitigated.	IIT does not negatively impact remote internal audits.
Remote internal auditing provides stakeholders with adequate and timely assurance to make informed decisions.	Correlation Coefficient	1,000	0,344	0,186	0,245	0,185	0,152
	Sig. (2-tailed)		0,092	0,372	0,237	0,376	0,468
	N	25	25	25	25	25	25
Remote internal auditing is more effective than on-site internal auditing.	Correlation Coefficient	0,344	1,000	0,239	0,619**	0,002	0,116
	Sig. (2-tailed)	0,092		0,249	0,001	0,991	0,582
	N	25	25	25	25	25	25
Remote internal auditing adds value to the organisation.	Correlation Coefficient	0,186	0,239	1,000	0,345	0,129	0,234
	Sig. (2-tailed)	0,372	0,249		0,091	0,538	0,261
	N	25	25	25	25	25	25
Stakeholders support remote auditing.	Correlation Coefficient	0,245	0,619**	0,345	1,000	0,096	0,041
	Sig. (2-tailed)	0,237	0,001	0,091		0,648	0,846
	N	25	25	25	25	25	25
Internal audit advises on a continuous basis, whether risks (including emerging risks), are identified in the business and adequately and effectively mitigated.	Correlation Coefficient	0,185	0,002	0,129	0,096	1,000	-0,145
	Sig. (2-tailed)	0,376	0,991	0,538	0,648		0,489
	N	25	25	25	25	25	25
IIT does not negatively impact remote internal audits.	Correlation Coefficient	0,152	0,116	0,234	0,041	-0,145	1,000
	Sig. (2-tailed)	0,468	0,582	0,261	0,846	0,489	
	N	25	25	25	25	25	25

** . Correlation is significant at the 0.01 level (2-tailed).

The Spearman's rho correlation analysis that was conducted revealed the following:

Strong positive correlation

The analysis reveals a strong and statistically significant positive correlation between the perception that *"Remote internal auditing is more effective than on-site internal auditing"* and the belief that *"Stakeholders support remote auditing"*. This relationship is supported by a correlation coefficient of 0,619 and a *p*-value of 0,001, indicating that the finding is statistically significant at the 0,01 level.

This result indicates that as stakeholders increasingly view remote internal auditing as more effective, their support for implementing remote audits also increases. The strength and significance of this relationship suggest a high level of stakeholder confidence in remote auditing, as well as its perceived effectiveness and value.

Such alignment may stem from the perceived benefits of remote auditing, including improved accessibility, cost efficiency, flexibility, and reduced operational disruption. The findings underscore the importance of stakeholder perceptions in shaping audit practices and may inform future decisions about more fully integrating remote methodologies into internal audit frameworks.

Moderate but not statistically significant correlations

Two moderate positive correlations were identified between stakeholder perceptions; however, neither reached statistical significance ($p > 0,05$). While these findings suggest some alignment in attitudes, the relationships are not strong enough to draw definitive conclusions.

- *“Remote internal auditing is more effective” ↔ “Remote audit provides timely assurance”*. Spearman’s correlation coefficient (ρ) was 0,344 with a p -value of 0,092. This suggests a mild tendency for stakeholders who viewed remote auditing as effective to also believe that it delivers timely assurance. However, the relationship does not meet the threshold for statistical significance, indicating that the connection may be incidental or influenced by other factors.
- *“Remote audit adds value” ↔ “Stakeholders support remote auditing”*. A similar pattern was observed with a correlation coefficient (ρ) of 0,345 and a p -value of 0,091. This may imply that stakeholders who perceive remote audits as valuable are somewhat more likely to support their use. Nonetheless, the lack of statistical significance limits the ability to generalise this finding confidently.

Weak or no correlation

Several relationships exhibited low correlation coefficients and were not statistically significant, indicating little to no consistent association between the compared stakeholder perceptions:

- *“IT does not have a negative effect”* in relation to all other items. Correlation values ranged from 0,041 to 0,234, with p -values all above 0,26. These results suggest that stakeholder views on the neutral or positive role of IT in remote auditing are largely independent of their perceptions of audit effectiveness, added value, stakeholder support, or risk mitigation. In other words, whether IT is perceived to hinder the audit process does not appear to meaningfully influence views on other key aspects of remote auditing.
- *“Audit identifies and mitigates risks”* in relation to other items. Correlation values were extremely low, such as the relationship with *“Remote audit effectiveness”* ($\rho = 0,002$, $p = 0,991$). This indicates that the belief that audits help identify and mitigate risks is not strongly connected to stakeholders’ views on the effectiveness, value, or support of remote

audits within this sample. The lack of association may reflect differing conceptual interpretations of what constitutes audit success or effectiveness.

For ease of interpretation, a summary of the Spearman's correlation results is provided in Table 4.12.

Table 4.12: Summary of correlation findings: Stakeholder perception

Item Pair	Correlation (ρ)	p-value	Interpretation
Remote audit effectiveness ↔ Stakeholder support	0,619	0,001	Strong, significant positive relationship
Remote audit effectiveness ↔ Timely assurance	0,344	0,092	Moderate, not significant
Remote audit adds value ↔ Stakeholder support	0,345	0,091	Moderate, not significant
IT's effect ↔ Other items	$\leq 0,234$	$> 0,26$	Weak or no correlation
Risk advice ↔ Other items	$\leq 0,185$	$> 0,37$	Weak or no correlation

Source: Survey data, 2025 SPSS output

In summary, the findings indicate that stakeholder support plays a critical role in the perceived effectiveness of remote internal audits, as evidenced by a strong and statistically significant correlation. Although moderate relationships were observed between stakeholder support and the perceived value of remote audits, as well as between remote audit effectiveness and timely assurance, the lack of statistical significance suggests that these results may not be broadly applicable. Additionally, the results show weak or no meaningful correlations between the impact of IT and other variables, as well as between risk advisory input and audit outcomes, implying that these factors may have a less direct influence on stakeholder perceptions of audit value and effectiveness.

The next section focuses on management support, the second determinant of effectiveness.

4.6.2 Section B analysis: Management support

Regardless of how independent the internal audit unit is from the rest of the organisation, management must have confidence in the abilities and recommendations of the unit for those recommendations to be implemented effectively (Alzeban & Gwilliam, 2014). Without management support, internal audit would not be able to function effectively.

This section of the questionnaire aimed to determine whether internal auditors receive adequate support from management when conducting remote internal audits. To assess this, the researcher focused on the following aspects:

- Management provides sufficient and reliable digital evidence in a timely manner during remote internal audits to avoid limitation of scope.
- Management supports remote internal auditing and provides the necessary encouragement to the internal audit unit.
- The internal audit unit receives attention from top management, which focuses on the issues audited by the internal audit unit.
- Management and staff are readily available for online meetings to discuss audit scope, processes, and findings.
- Departments participate remotely in the preparation of the internal audit plan and the three-year rolling plan.

The following section presents the findings from Section B of the questionnaire, which was distributed to the chief internal auditor and internal auditors. This section highlights the primary insights into management support, identified as the second determinant of internal audit effectiveness. These individuals were selected due to their direct involvement in the internal audit process and their ability to provide informed perspectives on key factors affecting its effectiveness.

4.6.2.1 Question 1

Objective of the analysis

The objective of this part of the analysis was to evaluate the extent to which management provides sufficient, reliable, and timely digital evidence during remote internal audits. Specifically, the analysis aimed to determine whether the quality and promptness of submitted evidence are adequate to support audit procedures and conclusions without introducing limitations in scope. Ensuring the timely availability of appropriate digital documentation is critical in remote audit settings, where physical verification is not feasible. Delays or gaps in evidence can hinder audit effectiveness, reduce assurance levels, and compromise compliance with auditing standards.

Findings

Table 4.13 provides an overview of whether management submits sufficient and reliable digital evidence in a timely manner during remote internal audits to prevent limitations in the scope.

Table 4.13: Management submits sufficient and reliable digital evidence timely during remote internal audits to prevent limitation of scope

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	7,1	7,1	7,1
	Disagree	1	3,6	3,6	10,7
	Neither agree nor disagree	10	35,7	35,7	46,4
	Agree	15	53,6	53,6	100,0
	Total	28	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

These findings suggest that while the majority of stakeholders perceived strong management support in terms of timely and reliable submission of digital evidence, a significant proportion of neutral responses (35,7%) highlights potential variability in practice. This indicates that although management support is generally adequate, there may be inconsistencies across departments or audit engagements that warrant further attention to ensure uniformity and reduce the risk of scope limitations in remote audits.

The finding that most stakeholders perceived management support for the timely and reliable submission of digital audit evidence as strong is consistent with existing literature, which identifies management support as a key determinant of internal audit effectiveness, particularly in remote auditing environments (Alzeban & Gwilliam, 2014; Eulerich, Kremin, & Wood, 2019). Prior studies emphasise that proactive management involvement facilitates access to information, enhances audit cooperation, and reduces operational barriers associated with remote audit engagements. However, the relatively high proportion of neutral responses observed in this study aligns with scholarly evidence suggesting that management support is not always applied uniformly across organisations. Research indicates that differences in departmental practices, managerial commitment, and levels of digital maturity can lead to variability in the availability and quality of audit evidence (Appelbaum et al., 2017; Kotb et al., 2020). This variability may contribute to delays, inconsistent cooperation, or implicit scope limitations, even where overall management support is perceived as adequate. Accordingly, the findings support and extend existing literature by highlighting that while management support for remote auditing is generally present, greater standardisation and consistent enforcement across departments are necessary to mitigate risks and enhance audit effectiveness.

4.6.2.2 Question 2

Objective of analysis

The objective of this part of the analysis was to assess the extent to which managers actively support the remote internal audit process and provide the internal audit unit with the necessary encouragement and facilitation to perform its functions effectively. This includes evaluating managerial involvement in audit planning, responsiveness to audit requests, willingness to engage in virtual meetings, and the overall attitude toward the remote audit process. Managerial support is a critical factor influencing the success of remote audits, as it directly affects the flow of communication, access to information, and the perceived legitimacy of the audit function within the organisation.

Findings

Table 4.14 provides an overview of managers' support for remote internal auditing and whether they offer the internal audit unit the expected encouragement.

Table 4.14: Management does not support remote internal audit and does not provide the internal audit unit with the expected encouragement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	15	53,6	53,6	53,6
	Neither agree nor disagree	10	35,7	35,7	89,3
	Agree	1	3,6	3,6	92,9
	Strongly agree	2	7,1	7,1	100,0
	Total	28	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The results indicate that management was generally perceived as supportive of remote internal auditing, as evidenced by the 53,6% of respondents who disagreed with the statement, suggesting a lack of support. However, the notable proportion of neutral responses (35,7%) and a smaller segment expressing agreement (10,7%) suggested that perceptions of management support are not uniformly positive. This highlights an opportunity for organisations to strengthen communication and demonstrate consistent support for remote audit processes across all levels.

The findings indicate that management support for remote internal auditing is generally perceived as adequate, as evidenced by the majority of respondents who rejected the notion of a lack of support.

This result is consistent with existing literature, which identifies management support as a fundamental determinant of internal audit effectiveness, particularly in remote and technology-enabled audit environments (Alzeban & Gwilliam, 2014; Eulerich, Kremin, & Wood, 2019). However, the substantial proportion of neutral responses, together with a smaller segment of respondents perceiving insufficient support, suggests that management support is not uniformly experienced across the organisation. Prior studies similarly report variability in management commitment across departments and audit engagements, often influenced by differences in managerial attitudes, communication practices, and levels of digital readiness (Appelbaum et al., 2017; Kotb et al., 2020). Such inconsistencies may contribute to delays in the provision of audit evidence or implicit scope limitations in remote audit contexts. Accordingly, this finding aligns with and extends the literature by highlighting the need for clearer communication, standardised expectations, and consistent reinforcement of management support across all organisational levels to enhance the effectiveness of remote internal auditing.

4.6.2.3 Question 3

Objective of the analysis

The objective of this part of the analysis was to examine whether top management demonstrates sufficient attention to the internal audit function and actively engages with the issues identified during audit activities. This includes assessing the extent to which senior leadership prioritises audit findings, takes corrective action on recommendations, and integrates audit insights into strategic decision-making. Attention from top management is a key indicator of the internal audit function's perceived value and influence within the organisation. When leadership is responsive and supportive, internal audits are more likely to result in meaningful improvements and enhanced governance outcomes.

Findings

Table 4.15 provides a summary of top management's focus and attention to the issues audited by the internal audit units.

Table 4.15: Internal audit units get the attention of top management, and top management focuses on issues audited by internal audit units

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	7,1	7,1	7,1
	Disagree	2	7,1	7,1	14,3
	Neither agree nor disagree	5	17,9	17,9	32,1
	Agree	19	67,9	67,9	100,0
	Total	28	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The finding that 67,9% of respondents agreed that internal audit units receive attention from top management and that audit issues are taken seriously reflects a strong perception of top-level engagement in audit-related matters. However, the presence of neutral (17,9%) and disagreeing (14,2%) responses suggests that while the overall sentiment is positive, there remains a need to reinforce consistent and visible support from leadership across the organisation.

The finding that the majority of respondents perceived strong attention from top management toward internal audit units and audit-related issues is consistent with existing literature, which emphasises top management engagement as a critical factor in enhancing internal audit effectiveness. Prior studies indicate that visible support from senior leadership strengthens the authority, independence, and organisational influence of the internal audit function, thereby increasing the likelihood that audit findings are taken seriously and acted upon (Alzeban & Gwilliam, 2014; Eulerich, Kremin, & Wood, 2019). However, the presence of neutral and disagreeing responses in this study suggests that top management support may not be experienced uniformly across the organisation. This observation aligns with scholarly evidence indicating that, despite formal endorsement at senior levels, inconsistent communication, varying managerial attitudes, or limited follow-through can weaken the perceived commitment to internal audit in certain areas (Sarens & Abdolmohammadi, 2011; Mihret & Yismaw, 2007). Accordingly, this finding agrees with existing literature and extends it by highlighting the importance of sustained, visible, and organisation-wide leadership support to ensure that internal audit receives consistent recognition and responsiveness across all levels of the organisation.

4.6.2.4 Question 4

Objective of the analysis

The purpose of this question was to assess whether management and staff demonstrate availability and willingness to participate in online meetings with internal auditors during remote audits. Specifically, it aimed to determine the ease with which audit teams can engage key personnel in virtual discussions related to the audit scope, procedures, preliminary observations, and final findings. Regular and timely access to stakeholders is essential in a remote audit environment, where face-to-face interactions are limited. Such engagement ensures clarity, facilitates the exchange of relevant information, and supports the effectiveness and credibility of the audit process.

Findings

Table 4.16 provides a summary of the availability of management and staff for online meetings to discuss the audit scope, processes, and findings.

Table 4.16: Management and staff are readily available for online meetings to discuss audit scope, processes, and findings

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	7,1	7,1	7,1
	Neither agree nor disagree	6	21,4	21,4	28,6
	Agree	15	53,6	53,6	82,1
	Strongly agree	5	17,9	17,9	100,0
	Total	28	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

Of the respondents, 71,5% agreed or strongly agreed that management and staff are readily available for online meetings, which suggests a generally high level of availability and collaboration during remote audits. The low rate of strong disagreement (7,1%) further supports this positive view, though the 21,4% of respondents who were unsure indicates that consistency in engagement could still be improved across some areas.

The finding that a substantial majority of respondents agreed or strongly agreed that management and staff are readily available for online meetings indicates a generally high level of availability and collaboration during remote internal audit engagements. This result is consistent with existing

literature, which identifies effective communication and stakeholder accessibility as critical enablers of successful remote auditing (Appelbaum et al., 2017; Eulerich, Kremin, & Wood, 2019). Prior studies emphasise that the ability of auditees and management to participate in virtual meetings facilitates timely information exchange, reduces audit delays, and supports audit quality in technology-enabled environments (Kotb et al., 2020). However, the presence of a notable proportion of respondents who were uncertain suggests that engagement is not experienced uniformly across all areas of the organisation. This observation aligns with scholarly findings that highlight variability in virtual engagement due to differences in digital competence, workload demands, and managerial priorities (Sarens & Abdolmohammadi, 2011). Accordingly, this finding agrees with existing literature and underscores the importance of reinforcing consistent engagement practices to ensure sustained collaboration and effectiveness in remote internal auditing.

4.6.2.5 Question 5

Objective of the analysis

The purpose of this question was to explore stakeholders' perceptions of the approach adopted by the internal audit function in formulating its annual audit plans and three-year rolling plans. Specifically, the objective was to determine whether the planning process is perceived as being risk-based, strategically aligned, and inclusive of input from key stakeholders. Understanding how internal audit prioritises areas for review in the short and medium term provides insight into the function's responsiveness to emerging risks, alignment with organisational objectives, and its ability to add value through proactive planning. This assessment also reflects the maturity and strategic orientation of the internal audit function.

Findings

Table 4.17 provides a summary of respondents' views on whether departments remotely participate in the preparation of the internal audit plan and the three-year rolling plan.

Table 4.17: Departments remotely take part in the preparation of the internal audit plan and the three-year rolling plan

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	7,1	7,1	7,1
	Disagree	1	3,6	3,6	10,7
	Neither agree nor disagree	3	10,7	10,7	21,4
	Agree	19	67,9	67,9	89,3
	Strongly agree	3	10,7	10,7	100,0
	Total	28	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The statistical analysis demonstrates a strong consensus that internal audit functions actively consider input from management and other stakeholders when formulating their annual audit plans, with 78,8% of respondents in agreement. The relatively low proportion of disagreement (10,7%) and neutrality (10,7%) further reinforces this perception

The finding that a substantial majority of respondents agreed that internal audit functions actively consider input from management and other stakeholders when developing annual audit plans is consistent with existing literature that emphasises the importance of stakeholder engagement and risk-based planning in internal auditing. Prior research and professional guidance highlight that effective internal audit functions align their audit plans with organisational strategy, business objectives, and key risk areas through consultation with management and relevant stakeholders (Sarens & De Beelde, 2006; Mihret & Yismaw, 2007; IIA, 2017). Such collaboration enhances the relevance and value of internal audit activities by ensuring that audit coverage focuses on areas of greatest organisational risk. The relatively low levels of disagreement and neutrality observed in this study further support the view, widely documented in the literature, that inclusive and consultative planning processes contribute positively to internal audit effectiveness (Alzeban & Gwilliam, 2014; Eulerich, Kremin, & Wood, 2019). Accordingly, this finding agrees with existing literature and reinforces the role of stakeholder-informed, risk-focused audit planning as a core characteristic of effective internal audit functions.

It can, therefore, be concluded that internal audit departments effectively align their planning processes with organisational strategies, business objectives, and key risks, reflecting a collaborative and risk-focused approach.

The next section provides a comprehensive discussion on management support, examining the extent to which leadership demonstrates commitment to the internal audit function.

4.6.2.6 Overall discussion: Management support in remote internal auditing

The effectiveness of remote internal audits heavily relies on the support and engagement of management. The findings clearly underscore the pivotal role that management support plays in the effectiveness of remote internal auditing. Across multiple dimensions – ranging from the provision of timely digital evidence to participation in audit planning – there is a generally positive perception of management's involvement. Notably, the majority of respondents affirmed management's commitment through reliable evidence submission (53,6%), support for the remote audit process (53,6%), top-level attention to audit issues (67,9%), availability for virtual meetings (71,5%), and active participation in audit planning (78,8%).

However, the consistent presence of neutral responses across all areas – ranging from 10,7% to 35,7% along with a minority of negative responses – indicates variability in the level and consistency of management support. These findings suggest that while a strong foundation of support exists, organisations should prioritise greater standardisation and visibility in their support for remote audit practices. Strengthening communication, reinforcing responsibilities, and ensuring consistent engagement at all levels will be essential to maximising the effectiveness, credibility, and impact of remote internal audits.

To gain deeper insights into management support for remote internal auditing, a statistical analysis was conducted on the quantitative data gathered from the survey responses. The following section presents this analysis, focusing on two key statistical measures: the mean, which represents the average level of agreement, and the standard deviation, which indicates the variability or consistency of responses.

4.6.2.7 Statistical analysis

To interpret the data, each statement was broken down in terms of its mean (average response) and standard deviation (the extent to which the responses are spread out). The higher the mean, the more favourable the response, and the lower the standard deviation, the greater the agreement among respondents. These values are summarised in Table 4.18.

Table 4.18: Descriptive statistical analysis results

Management Support	N	Mean	Std. Deviation
Management submits sufficient and reliable digital evidence timely during remote internal audits to prevent limitation of scope.	28	3,36	0,870
Management does not support remote internal audit and does not provide internal audit unit with the encouragement expected.	28	2,64	0,870
Internal audit units get the attention of top management and top management focuses on issues audited by internal audit units.	28	3,46	0,922
Management and staff are readily available for online meetings to discuss audit scope, processes, and findings.	28	3,75	1,005
The departments remotely take part in the preparation of the internal audit plan and the three-year rolling plan.	28	3,71	0,976

Source: Survey data, 2025 SPSS output

This section summarises the findings based on statistical analysis of management support regarding remote internal auditing, using the mean and standard deviation of survey responses to assess both general sentiment and response variability.

Among the items related to management support, the highest-rated statement was “*Management and staff are readily available for online meetings to discuss audit scope, processes, and findings*”, with a mean score of 3,75 and a standard deviation of 1,005. This reflects a generally positive response, indicating that most respondents agreed that management is accessible for online discussions. The standard deviation of 1,005 indicates a moderate level of variation, suggesting that while most respondents found management responsive, some may have experienced delays or difficulties in scheduling meetings.

The second-highest-rated item was “*Departments remotely participate in the preparation of the internal audit plan and the three-year rolling plan*”, which scored a mean of 3,71 and a standard deviation of 0,976. This shows broad agreement that departments are involved in audit planning; however, the moderate standard deviation indicates that while most respondents agreed, some may have felt that departments are not as involved as expected.

In third place, the item “*Internal audit units receive the attention of top management and management focuses on issues raised by internal audit units*” received a mean score of 3,46 with a standard deviation of 0,922. Although this suggests a slightly positive response overall, the moderate variation reveals differing perceptions of how attentive management is to audit findings. While most respondents believed that management is engaged, a few may have felt that management does not pay sufficient attention to internal audit issues.

The fourth-ranked item, *“Management submits sufficient and reliable digital evidence on time during remote audits to avoid limitations in scope”*, had a mean score of 3,36 and a standard deviation of 0,870. This reflects a slightly positive but relatively neutral stance, with some respondents indicating concerns about the timeliness or adequacy of evidence provided.

Lastly, the item *“Management does not support remote internal audits or provide expected encouragement to the internal audit unit”* had the lowest mean score of 2,64 with a standard deviation of 0,870. This suggests that most respondents disagreed with the statement, indicating that management was generally perceived as supportive of remote auditing. However, the standard deviation shows a moderate level of agreement, indicating that while the majority disagreed, there was some variation in how respondents perceived the level of management support. The perceptions of support were not entirely consistent.

The next section discusses the overall interpretation of management support.

4.6.2.8 Overall interpretation of management support

Strengths

There was positive feedback on certain aspects of management support, such as the availability of management and staff for online meetings (mean = 3,75) and the involvement of departments in preparing audit plans (mean = 3,71). These responses indicate that management is generally engaged and responsive during the audit process. These findings resonate with (Ta & Doan, 2022), who emphasised that strong management support enhances the effectiveness of internal audits. They noted that management’s commitment is crucial for the success of the internal audit function, as it ensures adequate resources and facilitates the audit process.

Challenges

Despite the positive aspects, challenges persist, particularly regarding the submission of sufficient and reliable evidence (mean = 3,36) and the perception of management’s support for remote internal audits (mean = 2,64). These responses suggest that while some respondents felt that management supports the audit process, others felt that more support, particularly in terms of evidence submission and encouragement, is needed. This aligns with Geqeza and Dubihlela (2024), who found that a lack of management support, including insufficient resources and delayed corrective actions, negatively affects the effectiveness of internal audits in South African entities.

Variation

The variability in responses, especially regarding management's availability for meetings ($SD = 1,005$) and attention to internal audit issues ($SD = 0,922$), suggests differing experiences among stakeholders. This indicates some differences in the experiences and perceptions of respondents, possibly due to differences in management engagement across various departments or organisations. Erasmus and Coetzee (2018) observed similar disparities, noting that senior management and audit committees often have differing perceptions of the drivers of internal audit effectiveness, which can influence the overall effectiveness of the internal audit function.

Final insight

Overall, the findings suggest that management plays a supportive and engaged role in remote internal auditing. The positive perceptions of management availability, involvement in planning, and attention to audit issues reinforce the value placed on internal audit by leadership. However, the moderate variability in responses across several items indicates that this support is not consistently perceived across the organisation. To strengthen remote audit outcomes, organisations should focus on standardising management engagement practices, ensuring timely submission of audit evidence, and actively reinforcing the importance of remote auditing at all leadership levels.

The next section of the thesis examines the interrelationships among various factors related to the quality of remote internal audits using Spearman's correlation analysis.

4.6.2.9 Spearman's correlation analysis between management support and their impact on various dimensions of internal audit effectiveness

In this section of the thesis, the role of management support as a critical variable for the effectiveness of internal audits is analysed. Specifically, the Spearman's correlation data for management support (represented by Section B variables) and its relationship with other variables related to audit effectiveness are interpreted. This interpretation could assist to highlight the importance of management's role in enhancing the quality and success of internal audits.

Table 4.19: Spearman's correlation to explore the relationship between management's involvement and support for remote internal audit

Correlations						
		Management submits sufficient and reliable digital evidence timely during remote internal audits to prevent limitation of scope.	Management does not support remote internal audit and does not provide IA unit with the encouragement expected.	IA units gets the attention of top management and focuses on issues audited by IA units.	Management and staff are readily available for online meetings to discuss audit scope, processes and findings.	The departments remotely take part in the preparation of the internal audit plan and the three year rolling plan.
Management submits sufficient and reliable digital evidence timely during remote internal audits to prevent limitation of scope.	Correlation Coefficient	1,000	-0,212	0,269	0,450*	0,243
	Sig. (2-tailed)		0,278	0,166	0,016	0,214
	N	28	28	28	28	28
Management does not support remote internal audit and does not provide IA unit with the encouragement expected.	Correlation Coefficient	-0,212	1,000	-0,123	-0,047	-0,413
	Sig. (2-tailed)	0,278		0,533	0,811	0,029
	N	28	28	28	28	28
IA units gets the attention of top management and focuses on issues audited by IA units.	Correlation Coefficient	0,269	-0,123	1,000	0,737**	0,255
	Sig. (2-tailed)	0,166	0,533		0,000	0,190
	N	28	28	28	28	28
Management and staff are readily available for online meetings to discuss audit scope, processes and findings.	Correlation Coefficient	.450*	-0,047	0,737**	1,000	0,137
	Sig. (2-tailed)	0,016	0,811	0,000		0,486
	N	28	28	28	28	28
The departments remotely take part in the preparation of the internal audit plan and the three year rolling plan.	Correlation Coefficient	0,243	-0,413	0,255	0,137	1,000
	Sig. (2-tailed)	0,214	0,029	0,190	0,486	
	N	28	28	28	28	28
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

Table 4.19 presents the Spearman's rho analysis that was conducted to explore the relationship between management's involvement and support for remote internal auditing. The results indicated several significant correlations that highlight the importance of management engagement. A detailed discussion on the findings follows.

Very strong positive correlation

"Management and staff are readily available for online meetings" ↔ "Internal audit unit gets the attention of top management": $p = 0,737$, $p = 0,000$ (significant at the 0,01 level).

A very strong positive correlation exists between the availability of management and staff for online meetings and the internal audit unit's ability to gain the attention of top management. This suggests

that when management and staff are easily accessible for audit discussions, the audit unit is more likely to receive focused attention from senior leadership. This finding emphasises the importance of organisational engagement in elevating the impact and visibility of the audit function within the organisation.

Moderate positive correlation

“Management submits sufficient and timely digital evidence” ↔ “Management and staff are readily available for online meetings”: $\rho = 0,450$, $p = 0,016$ (significant at the 0,05 level).

There is a moderate positive correlation between the submission of timely and sufficient digital evidence by management and their availability for online meetings. This indicates that when management is proactive in providing reliable digital evidence, they are also more likely to be actively engaged in virtual audit discussions. This correlation suggests a broader pattern of cooperation and accessibility during remote audits, reflecting an overall commitment to the audit process.

Moderate negative correlation

“Management does not support remote audit” ↔ “Departments take part in audit plan preparation”: $\rho = -0,413$, $p = 0,029$ (significant at the 0,05 level).

A moderate negative correlation was observed between the lack of management support for remote auditing and the participation of departments in audit plan preparation. This suggests that when management is not supportive of remote audits, departments are less likely to be involved in shaping the audit direction and priorities. The lack of support can create barriers to collaborative planning, which may negatively affect the overall audit process.

Non-significant correlations (but worth noting)

While not statistically significant ($p > 0,05$), the following correlations showed a trend worth considering:

- *“Management submits sufficient digital evidence” ↔ “Internal audit unit gets attention of top management”*: $\rho = 0,269$, $p = 0,166$.
- *“Departments take part in audit planning” ↔ “Internal audit unit gets attention of top management”*: $\rho = 0,255$, $p = 0,190$.

Although these relationships do not meet the conventional significance threshold, they suggest potential emerging patterns.

Very weak or no correlation

Certain variables displayed weak or negligible correlations with most items, except for the significant negative correlation with planning. For example, “*Management does not support remote auditing*” ↔ “*Readily available for meetings*”: $\rho = -0,047$, $p = 0,811$ (very weak and not significant). This finding indicates that a lack of management support for remote auditing has little to no impact on management’s availability for meetings. This suggests that while management availability may not be influenced significantly by their overall stance on remote auditing, other factors could be at play.

The above findings results are summarised in Table 4.20 for ease of interpretation.

Table 4.20: Summary of correlation findings: management support

Item Pair	Correlation (ρ)	p-value	Interpretation
Online meeting availability ↔ Internal audit gets top management attention	0,737	0,000	Very strong, highly significant positive
Digital evidence submission ↔ Meeting availability	0,450	0,016	Moderate, significant positive
Lack of support ↔ Participation in audit planning	-0,413	0,029	Moderate, significant negative
Digital evidence submission ↔ Internal audit attention	0,269	0,166	Weak, not significant
Lack of support ↔ Meeting availability	-0,047	0,811	No meaningful correlation

In summary, these findings suggest that management support and engagement – through availability for meetings, timely provision of digital evidence, and active participation in audit planning – are critical drivers of effective remote internal audits. Conversely, lack of management support can hinder collaboration and the successful implementation of audit activities.

This next section provides a detailed examination of the key insights related to quality, which has been identified as the third critical determinant influencing the effectiveness of internal audit functions. The aim is to understand whether remote internal audits meet professional standards, maintain the necessary depth and scope, and are supported by appropriate infrastructure and quality assurance mechanisms.

4.6.3 Section C analysis: Quality

Quality is determined by the internal audit department’s ability to deliver useful findings and recommendations. Therefore, quality is a crucial factor upon which audit effectiveness relies (Maletta, 2013; Moraa, 2012). The performance standards set by The IIA (2004; 2009) require auditors to plan

and execute their work in such a way that they can provide valuable audit findings and suggest improvements. The office's ability to plan, perform, and communicate the results of audits effectively is a key indicator of audit quality (Moraa, 2012).

Conducting audits in accordance with internal auditing standards enhances the effectiveness of the internal audit function (Turetken, Stevens & Özkan, 2019). Adherence to these standards influences internal audit's effectiveness and its capacity to add value, as the standards provide a structured framework for performance and a range of value-added activities (D'Onza *et al.*, 2015a). The internal auditing standards also highlight the importance of maintaining a comprehensive QAIP, which covers all aspects of internal audit activities and continuously monitors its effectiveness (Standard 1300 – QAIP).

This section of the questionnaire aimed to determine whether the quality of internal audits is compromised by conducting them remotely. The questionnaire was distributed to the CEO, CFO, audit and risk committee members, and management. These individuals were selected to complete the quality review of the remote internal audit because they hold key oversight, governance, and operational roles within the organisation. As senior leaders and members of the audit and risk committee, they are directly involved in or affected by the internal audit function. Their insights are essential in evaluating the effectiveness, relevance, and quality of remote audit practices, as they can provide informed feedback on how well the audit supports risk management, compliance, and organisational objectives.

To assess this, the researcher focused on the following aspects:

- Remote internal audits are properly planned, executed, supervised, and reviewed.
- Remote internal audits are conducted in accordance with the international standard for the professional practice of internal auditing.
- ICT infrastructure is adequate for facilitating remote internal audit work and ensuring that internal audit is effective and efficient.
- The scope and depth of a remote internal audit are negatively affected by procedures that cannot be conducted remotely.
- Remote internal audits are more effective than on-site internal audits.
- The internal audit unit has incorporated improvements in remote internal audits into the QAIP.
- The quality assurance review report by the external service providers is positive regarding conducting audits remotely.
- Internal audit performs internal quality assurance reviews annually to ensure that remote internal audits comply with the standards.

- Limitations in scope exist due to certain internal audit procedures being unable to be conducted, leading to uncovered risks.
- Access to data and its quality allow for the effective performance of remote internal audits.

4.6.3.1 Question 1

Objective of the analysis

The aim of this question was to evaluate whether the shift to remote auditing has affected the perceived quality and effectiveness of internal audit activities. Specifically, it sought to determine whether conducting audits virtually without traditional on-site presence has compromised audit rigour, accuracy, or the depth of insight provided. Ensuring that audit quality remains consistent in a remote environment is essential for maintaining stakeholder trust, fulfilling assurance responsibilities, and upholding professional standards. This question also provides insight into whether digital tools and remote collaboration practices adequately support the delivery of high-quality audit outcomes.

Findings

Table 4.21 provides a summary of whether remote internal audits are properly planned, executed, supervised, and reviewed.

Table 4.21: Remote internal audits are properly planned, completed, supervised and, reviewed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	6,9	6,9	6,9
	Neither agree nor disagree	1	3,4	3,4	10,3
	Agree	16	55,2	55,2	65,5
	Strongly agree	10	34,5	34,5	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The results presented in Table 4.21 indicate a strong consensus among respondents regarding the quality of remote internal audit processes. Specifically, 89,7% of participants agreed that remote audits are properly planned, executed, supervised, and reviewed, reflecting a high level of confidence in the professionalism and effectiveness of remote audit practices. This suggests that internal audit teams have effectively adapted their methodologies to the remote environment, maintaining compliance with

standards and delivering reliable outcomes. However, the 6,9% who strongly disagreed point to isolated concerns that may reflect inconsistencies in execution or communication in certain contexts.

The finding that an overwhelming majority of respondents perceived remote internal audits to be properly planned, executed, supervised, and reviewed is consistent with existing literature on the effectiveness of technology-enabled auditing practices. Prior studies indicate that when internal audit functions adapt their methodologies, strengthen supervision mechanisms, and apply appropriate quality assurance procedures, remote audits can achieve levels of professionalism and reliability comparable to traditional on-site audits (Appelbaum et al., 2017; Eulerich, Kremin, & Wood, 2019). The high level of confidence expressed by respondents in this study suggests that internal audit teams have successfully aligned remote audit practices with professional standards and established processes. However, the presence of a small proportion of respondents expressing strong disagreement reflects concerns also noted in the literature, which acknowledges that remote auditing may face isolated challenges related to communication, consistency in execution, and contextual limitations (Sarens & Abdolmohammadi, 2011; Kotb et al., 2020). Accordingly, this finding agrees with existing literature and reinforces the view that, while remote internal audits are generally well managed and effective, ongoing quality assurance and continuous improvement remain essential to sustain audit quality across all engagements.

Overall, the findings affirm that remote internal audits are largely perceived as well managed, though continuous quality assurance and improvement efforts remain essential.

4.6.3.2 Question 2

Objective of analysis

The objective of the question was to determine whether remote internal auditors are adhering to auditing standards. By following these standards, auditors can ensure that their work remains consistent across different audits and organisations. The standards, promulgated by The IIA, are the primary mechanism for ensuring that an organisation's internal auditors consistently and accurately provide essential services in a timely, cost-effective manner.

Findings

Table 4.22 summarises whether remote internal audits are conducted in conformance with the international standard for professional practice of internal auditing.

Table 4.22: Remote internal audits are conducted in conformance with the international standard for professional practice of internal auditing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	3,4	3,4	3,4
	Neither agree nor disagree	3	10,3	10,3	13,8
	Agree	16	55,2	55,2	69,0
	Strongly agree	9	31,0	31,0	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The findings indicate a strong level of confidence in the professionalism and quality of internal audit practices. A significant number of respondents (86,2%) believed that internal audits are conducted in accordance with international standards, suggesting widespread recognition of the audit function's adherence to globally accepted frameworks and best practices. The respondents who were neutral (10,3%) may reflect limited visibility into audit procedures or uncertainty about the specific standards applied. Meanwhile, the respondents who disagreed (3,4%) highlight a small but important area of concern that may warrant further investigation or communication to ensure transparency and understanding.

The finding that a substantial majority of respondents perceived internal audit activities to be conducted in accordance with international standards is consistent with existing literature, which identifies adherence to globally recognised frameworks, such as the International Professional Practices Framework (IPPF), as a key determinant of internal audit quality and credibility. Prior studies indicate that compliance with international standards enhances stakeholder confidence, strengthens perceptions of professionalism, and reinforces the reliability of internal audit outputs (Mihret & Yismaw, 2007; Alzeban & Gwilliam, 2014; Eulerich, Kremin, & Wood, 2019). The relatively small proportion of neutral responses observed in this study may reflect limited stakeholder visibility into audit methodologies or uncertainty regarding the specific standards applied, a concern similarly noted in prior research (Sarens & Abdolmohammadi, 2011). Although only a minimal number of respondents expressed disagreement, this finding highlights the importance of continuous communication and transparency to ensure consistent understanding of internal audit practices across the organisation. Accordingly, this result agrees with existing literature and reinforces the view that adherence to international standards underpins the perceived professionalism, credibility, and trustworthiness of the internal audit function.

Overall, the results affirm that the internal audit function is largely perceived as compliant with international standards, supporting its credibility and reliability within the organisation.

4.6.3.3 Question 3

Objective of the analysis

The purpose of this question was to assess respondents' views on the effectiveness of remote internal audits, with a particular focus on the role of IT systems in enabling successful audit execution. Specifically, it aimed to evaluate whether the technological infrastructure in place, such as communication platforms, data access systems, and digital documentation tools is perceived as adequate and effective in supporting remote audit procedures. In remote environments, the quality and reliability of IT systems are critical enablers of efficiency, collaboration, and audit quality. This question also sought to determine whether limitations in IT capabilities hinder the audit process or diminish the ability of auditors to gather sufficient and appropriate evidence.

Findings

Table 4.23 provides a summary of whether the ICT infrastructure is adequate for facilitating remote internal audit work and ensuring the effectiveness and efficiency of internal auditing.

Table 4.23: ICT infrastructure is adequate in facilitating remote internal audit work and ensuring internal audit is effective and efficient

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	3,4	3,4	3,4
	Disagree	2	6,9	6,9	10,3
	Neither agree nor disagree	9	31,0	31,0	41,4
	Agree	15	51,7	51,7	93,1
	Strongly agree	2	6,9	6,9	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The findings show that most respondents (58,6%) agreed with the statement in question, indicating generally positive perceptions. However, the relatively high proportion of neutral responses (31%) suggests uncertainty or a lack of clear awareness among stakeholders. Additionally, the 10,3% who disagreed point to a minority with concerns or differing experiences. Overall, while the majority sentiment was favourable, the notable level of neutrality highlights the need for improved

communication, consistency, or visibility regarding the area being assessed to strengthen stakeholder confidence and alignment.

The finding that a majority of respondents expressed positive perceptions of the area under assessment is consistent with existing literature, which suggests that internal audit and governance-related practices are generally viewed favourably by stakeholders. However, the substantial proportion of neutral responses observed in this study reflects a pattern widely documented in prior research, indicating that stakeholder uncertainty often arises where audit processes, roles, or outcomes are not sufficiently visible or clearly communicated (Sarens & Abdolmohammadi, 2011; Mihret & Yismaw, 2007). Previous studies further note that inconsistent engagement or limited interaction between internal audit functions and stakeholders can contribute to neutral or ambiguous perceptions, even when underlying practices are effective (Alzeban & Gwilliam, 2014). The presence of a smaller group of respondents expressing disagreement also aligns with the literature, which acknowledges that variations in departmental experiences and audit execution may influence stakeholder views (Eulerich, Kremin, & Wood, 2019). Accordingly, this finding agrees with existing literature and underscores the importance of enhanced communication, consistency, and visibility to strengthen stakeholder confidence and alignment.

4.6.3.4 Question 4

Objective of analysis

The aim of this question was to assess the impact of remote internal auditing on the scope and depth of audit procedures, particularly focusing on the limitations that may arise when certain procedures cannot be conducted remotely. In a traditional audit setting, physical presence often allows for broader engagement, such as physical inspections, face-to-face interviews, and real-time walkthroughs of operational processes. Remote auditing, while offering efficiency and flexibility, may pose challenges in replicating these procedures virtually. Therefore, this analysis seeks to determine whether remote audits compromise the comprehensiveness or quality of audit coverage and to what extent stakeholders perceive such limitations to affect audit outcomes. Understanding these perceptions is critical for identifying risk areas, adapting audit methodologies, and ensuring that remote audits continue to meet professional standards and organisational assurance needs.

Findings

Table 4.24 provides a summary of whether the scope and depth of remote internal audits are negatively affected by procedures that cannot be conducted remotely.

Table 4.24: The scope and depth of a remote internal audit are negatively affected by procedures that cannot be conducted remotely

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	4	13,8	13,8	13,8
	Disagree	6	20,7	20,7	34,5
	Neither agree nor disagree	6	20,7	20,7	55,2
	Agree	10	34,5	34,5	89,7
	Strongly agree	3	10,3	10,3	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

Of the respondents, 44,8% agreed, while 20,7% were neutral and 34,5% disagreed. The findings suggest that while remote internal auditing is generally viewed as effective, stakeholders recognise limitations in the scope and depth of certain audit procedures that are difficult to perform virtually. Tasks such as physical inspections and in-person interviews are not always replicable in a remote setting, potentially constraining the auditor's ability to gather comprehensive evidence in some areas. Although many respondents acknowledged the efficiency and practicality of remote audits, the data indicates that concerns remain about their ability to fully match the depth and coverage of traditional, on-site audits.

The finding that stakeholder perceptions of the effectiveness of remote internal auditing are mixed aligns with existing literature that presents a balanced view of remote audit practices. Prior studies recognise that remote internal auditing offers notable advantages in terms of efficiency, flexibility, and continuity of audit activities, particularly when supported by appropriate technologies and planning (Appelbaum et al., 2017; Eulerich, Kremin, & Wood, 2019). However, the literature also highlights inherent limitations associated with fully remote audits, especially in relation to procedures that require physical presence, such as on-site inspections, observation of controls, and in-depth face-to-face interviews (Sarens & Abdolmohammadi, 2011; Kotb et al., 2020). The concerns expressed by a significant proportion of respondents in this study regarding the scope and depth of remote audits therefore reflect challenges widely documented in prior research. Accordingly, this finding supports existing literature by underscoring the need for internal audit functions to continuously refine remote audit methodologies, leverage advanced digital tools, and adopt hybrid audit approaches where necessary to ensure that audit objectives are achieved without compromising audit quality or assurance coverage.

This highlights the need for internal audit functions to continuously refine remote methodologies, integrate more advanced digital tools (such as virtual walkthroughs and remote sensing technologies), and establish clear criteria for when hybrid or on-site components may be necessary. Overall, the conclusion underscores that while remote auditing offers considerable advantages, careful planning and adaptive strategies are essential to ensure that audit objectives are not compromised by procedural limitations.

4.6.3.5 Question 5

Objective of analysis

The researcher aimed to determine whether respondents believe that remote internal audits are more effective than on-site internal audits. The objective of this question was to explore respondents' perceptions regarding the relative effectiveness of remote internal audits compared to traditional on-site audits. Specifically, the researcher aimed to determine whether remote audits are viewed as equally, more, or less effective in achieving audit objectives, maintaining audit quality, and ensuring thoroughness in audit procedures. This inquiry is important as it seeks to understand whether the shift to remote auditing, accelerated by technological advancements and global events such as the COVID-19 pandemic, has altered the perceived value and outcomes of internal audits. It also provides insight into the factors such as flexibility, efficiency, or challenges related to technology that respondents believe influence the effectiveness of remote audits in comparison to on-site approaches.

Findings

Table 4.25 provides a summary of whether remote internal audits are considered more effective than on-site internal audits.

Table 4.25: Remote internal audit is more effective than on-site internal audit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	3	10,3	10,3	10,3
	Neither agree nor disagree	13	44,8	44,8	55,2
	Agree	12	41,4	41,4	96,6
	Strongly agree	1	3,4	3,4	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The findings reveal a divided perception among stakeholders regarding the effectiveness of remote internal audits compared to on-site audits. While 44,8% of respondents agreed that remote audits are more effective, an equal 44,8% were unsure, reflecting considerable uncertainty. Only 10,3% disagreed, suggesting limited outright opposition.

The most notable concern is the high proportion of neutral responses (44,8%), likely indicating confusion in data reporting or a typographical error. This neutrality underscores a lack of strong conviction or sufficient experience with remote auditing to confidently assess its comparative effectiveness.

The finding that stakeholder perceptions of the effectiveness of remote internal audits relative to on-site audits are divided is consistent with existing literature, which characterises confidence in remote auditing as still developing. Prior studies indicate that while remote audits are increasingly valued for their efficiency, flexibility, and ability to ensure audit continuity, stakeholders often lack sufficient experience or performance evidence to confidently assess their comparative effectiveness (Appelbaum et al., 2017; Eulerich, Kremin, & Wood, 2019; Kotb et al., 2020). The high proportion of neutral responses observed in this study aligns with scholarly findings suggesting that uncertainty frequently arises where stakeholders have limited direct exposure to remote audit engagements or where communication regarding audit methodologies and outcomes is insufficient (Sarens & Abdolmohammadi, 2011). Although relatively few respondents expressed disagreement, the overall pattern suggests cautious acceptance rather than strong endorsement of remote auditing. Accordingly, this finding agrees with existing literature and underscores the need for improved communication, targeted training, and clearer demonstration of audit performance to strengthen stakeholder confidence and clarify the circumstances under which remote audits can effectively complement or enhance traditional on-site audit approaches.

Overall, these results suggest that, while there is emerging support for remote auditing, stakeholder confidence is still developing. Organisations may need to invest in better communication, training, and performance evidence to demonstrate the strengths of remote audits and to clarify when they may outperform or complement traditional on-site methods.

4.6.3.6 Question 6

Objective of analysis

The purpose of this question was to evaluate whether the organisation's QAIP maintains or enhances the quality of remote internal audits. A robust QAIP is essential for ensuring that internal audit activities

conform to established standards and continuously improve their effectiveness. According to The IIA (2024a) Standard 8.3, the chief audit executive is required to develop and maintain a QAIP that encompasses all aspects of the internal audit function. This programme must include both internal and external assessments to evaluate conformance with the definition of internal auditing, The IIA's Global Internal Audit Standards, and the Code of Ethics.

The QAIP also assesses the efficiency and effectiveness of the internal audit activity and identifies opportunities for improvement. Internal assessments should include ongoing monitoring and periodic self-assessments, while a qualified, independent assessor or assessment team should conduct external assessments at least once every five years. These assessments provide assurance to senior management and the board regarding the quality and performance of the internal audit function.

In the context of remote internal audits, a well-implemented QAIP ensures that audit activities are conducted with the same level of rigour and quality as traditional on-site audits. It facilitates the identification of areas for improvement and supports the continuous development of audit methodologies and practices, thereby enhancing the overall effectiveness and value of the internal audit function.

Findings

Table 4.26 provides a summary of whether the internal audit unit has incorporated improvements to remote internal auditing within its QAIP.

Table 4.26: Internal audit unit has incorporated improvements on remote internal auditing in the QAIP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	6,9	6,9	6,9
	Neither agree nor disagree	8	27,6	27,6	34,5
	Agree	14	48,3	48,3	82,8
	Strongly agree	5	17,2	17,2	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

4.6.3.6.1 Discussion of findings

A total of 65,5% of respondents, as shown in Table 4.26, agreed that the internal audit unit has incorporated improvements to remote internal auditing in its QAIP. The number of remaining respondents (34,5%), which includes both those who were unsure and those who disagreed, suggests that the internal audit unit needs to incorporate further improvements to remote internal auditing in the

programme. This may indicate the need for more effective monitoring of internal audit projects, as well as the perception that internal auditors play a crucial role in ensuring quality and continuous improvement.

Prior research and professional guidance emphasise that an effective Quality Assurance and Improvement Programme (QAIP) is essential for sustaining internal audit quality, particularly in evolving audit environments such as remote auditing. Studies indicate that internal audit functions that actively incorporate lessons learned, technological advancements, and stakeholder feedback into their QAIP are better positioned to maintain audit effectiveness and continuous improvement (IIA, 2017; Alzeban & Gwilliam, 2014; Eulerich, Kremin, & Wood, 2019). The majority agreement observed in this study that improvements to remote internal auditing have been incorporated into the QAIP is therefore consistent with existing literature.

At the same time, the substantial proportion of respondents who were unsure or disagreed aligns with scholarly findings that highlight challenges in fully embedding continuous improvement practices, particularly where monitoring mechanisms, communication, or stakeholder awareness are insufficient (Sarens & Abdolmohammadi, 2011). The literature further recognises the critical role of internal auditors in driving quality assurance, monitoring audit performance, and ensuring that QAIP enhancements are effectively implemented and communicated across the organisation.

Accordingly, this finding supports existing literature by confirming that while progress has been made in integrating remote auditing improvements into QAIP frameworks, further strengthening of monitoring, communication, and continuous improvement processes remains necessary to enhance stakeholder confidence and audit quality.

4.6.3.7 Question 7

Objective of analysis

The aim of this question was to assess whether external service providers perceive remote internal audits as effective and compliant with established internal auditing standards. Understanding their perspectives is crucial, as external auditors assess the work of internal audit functions to form their own opinions. Their confidence in the quality and adherence to standards of remote audits can influence their assessment of the internal audit's function's conformance to the internal auditing standards.

Findings

Table 4.27 provides a summary of whether the quality assurance review report by external service providers reflects a positive view of conducting audits remotely.

Table 4.27: The quality assurance review report by the external service providers is positive in conducting audits remotely

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	6,9	6,9	6,9
	Neither agree nor disagree	11	37,9	37,9	44,8
	Agree	13	44,8	44,8	89,7
	Strongly agree	3	10,3	10,3	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

According to the survey results (Table 4.27), 55,1% of respondents agreed that the quality assurance review report by external service providers is positive regarding the conduct of audits remotely, while 6,9% disagreed. The remaining respondents (37,9%) were unsure about the quality assurance review report's positive view on conducting audits remotely. Additionally, respondents agreed that internal audit performs external quality assurance reviews every five years. This may suggest effective monitoring of audit projects and indicate that internal auditors are seen as effective in ensuring quality and continuous improvement.

The finding that more than half of respondents perceived external quality assurance review reports as positive regarding the conduct of remote internal audits is consistent with existing literature, which emphasises the role of external quality assurance reviews in strengthening internal audit credibility, objectivity, and adherence to professional standards. Prior research and professional guidance indicate that favourable external review outcomes signal effective audit methodologies, sound governance, and a strong commitment to continuous improvement, particularly in the context of evolving audit practices such as remote auditing (Alzeban & Gwilliam, 2014; Eulerich, Kremin, & Wood, 2019; IIA, 2017). The confirmation that external quality assurance reviews are conducted at the prescribed five-year intervals further aligns with best practice recommendations and reinforces perceptions of effective monitoring and quality oversight. However, the relatively high proportion of respondents who were unsure reflects concerns noted in the literature regarding limited stakeholder visibility into external review processes and findings (Sarens & Abdolmohammadi, 2011). Accordingly, this finding agrees with existing literature and underscores the importance of not only conducting regular external quality assurance reviews, but also communicating their scope, outcomes, and implications more effectively to enhance stakeholder understanding and confidence in the quality of remote internal auditing.

4.6.3.8 Question 8

Objective of analysis

The aim of this question was to assess whether the organisation conducts annual internal quality assurance reviews to ensure that remote internal audits comply with established internal auditing standards. According to The IIA (2024a) Standard 8.3, internal assessments must include ongoing monitoring and periodic self-assessments to evaluate conformance with the Standards and the Code of Ethics. These assessments are crucial for maintaining the quality and effectiveness of the internal audit function, particularly in remote audit environments where traditional oversight mechanisms may be less effective.

Furthermore, The IIA's QAIP requires that both internal and external assessments be conducted to evaluate the internal audit activity's conformance with the Standards and to identify opportunities for improvement. In the context of remote internal audits, regular internal quality assurance reviews ensure that audit activities are conducted with the same level of rigour and quality as traditional on-site audits, thereby enhancing the overall effectiveness and value of the internal audit function.

Findings

Table 4.28 provides a summary of whether internal audit performs internal quality assurance reviews annually to ensure that remote internal audits comply with the standards.

Table 4.28: Internal audit performs internal quality assurance reviews annually to ensure that remote internal audits comply with the standards

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	3,4	3,4	3,4
	Neither agree nor disagree	6	20,7	20,7	24,1
	Agree	16	55,2	55,2	79,3
	Strongly agree	6	20,7	20,7	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

Table 4.28 shows that 76,4% of respondents agreed that internal audit conducts internal quality assurance reviews on an annual basis to ensure that remote internal audits comply with the standards. However, 3,4% disagreed, and the remaining 20,7% were unsure. The respondents' agreement that internal audit performs annual quality assurance reviews may indicate effective monitoring of audit

projects, suggesting that internal auditors are seen as effective in ensuring quality and continuous improvement.

The finding that a substantial majority of respondents agreed that internal audit conducts annual internal quality assurance reviews to ensure compliance of remote internal audits with professional standards is consistent with existing literature. Prior research and professional guidance emphasise that regular internal quality assurance reviews are a core component of an effective Quality Assurance and Improvement Programme (QAIP) and are essential for maintaining audit quality, consistency, and adherence to standards, particularly in remote auditing environments (IIA, 2017; Alzeban & Gwilliam, 2014). The strong level of agreement observed in this study suggests that internal audit functions are perceived as proactively monitoring audit activities and embedding continuous improvement practices. The presence of a smaller proportion of neutral responses aligns with literature indicating that internal quality assurance processes are not always fully visible to all stakeholders, which may result in uncertainty regarding their scope or frequency (Sarens & Abdolmohammadi, 2011). Accordingly, this finding agrees with existing literature and reinforces the view that systematic internal quality assurance reviews play a critical role in supporting audit effectiveness, quality, and continuous improvement in remote internal auditing contexts.

4.6.3.9 Question 9

Objective of the analysis

The aim of this question was to assess whether conducting remote internal audits leads to certain audit procedures being unable to be performed, potentially resulting in uncovered risks and limitations in the audit scope. Remote auditing introduces unique challenges that may impede the execution of traditional audit procedures.

Findings

Table 4.29 provides a summary of whether limitations in scope exist due to certain internal audit procedures being unable to be conducted, leading to uncovered risks.

Table 4.29: Limitations in scope exist due to certain internal audit procedures being unable to be conducted, leading to uncovered risks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	6,9	6,9	6,9
	Disagree	4	13,8	13,8	20,7
	Neither agree nor disagree	9	31,0	31,0	51,7
	Agree	10	34,5	34,5	86,2
	Strongly agree	4	13,8	13,8	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The findings from Table 4.29 reveal a noteworthy concern among stakeholders regarding the limitations of remote internal audits. A significant percentage of respondents (48,3%) agreed that certain audit procedures cannot be conducted remotely, resulting in scope limitations and potential uncovered risks. This indicates that nearly half of the participants perceived remote auditing as potentially less comprehensive than traditional methods, particularly when procedures require physical presence or direct observation.

In contrast, 20,7% disagreed, suggesting that a portion of stakeholders believed remote audits can still achieve sufficient coverage. However, the 31% who were unsure reflects a considerable level of uncertainty, possibly stemming from inconsistent experiences or limited visibility into audit execution.

The finding that a substantial proportion of respondents perceived limitations in the scope of remote internal audits is consistent with existing literature, which acknowledges that certain audit procedures are difficult to perform effectively in a fully remote environment. Prior studies highlight that audit activities requiring physical presence, direct observation, or informal interaction—such as walkthroughs, inspections, and on-site verification—may be constrained in remote audit settings, potentially resulting in scope limitations and residual risks (Sarens & Abdolmohammadi, 2011; Appelbaum et al., 2017; Kotb et al., 2020). The disagreement expressed by a smaller proportion of respondents aligns with literature suggesting that, with sufficient technological capability and methodological adaptation, remote audits can still provide adequate assurance in many contexts (Eulerich, Kremin, & Wood, 2019). Meanwhile, the notable level of uncertainty observed in this study reflects concerns raised in prior research regarding inconsistent stakeholder experiences and limited visibility into remote audit execution. Accordingly, this finding agrees with existing literature and reinforces the need for internal audit functions to adopt hybrid audit approaches, enhance virtual audit

tools, and clearly define criteria for on-site intervention to mitigate scope limitations and ensure comprehensive risk coverage in remote internal auditing.

Overall, these findings highlight a critical area for improvement in remote audit practices. While remote auditing offers flexibility and efficiency, organisations must address procedural gaps, either by adopting hybrid approaches or enhancing virtual tools to ensure that no significant risks remain unaddressed due to scope limitations.

4.6.3.10 Question 10

Objective of analysis

The aim of this question was to assess whether the data required for remote internal audits is accessible, complete, and of sufficient quality to support audit activities. Remote internal audits rely heavily on the availability and quality of data transmitted electronically, often via email or cloud-based platforms. Therefore, it is crucial that the internal audit unit has timely access to accurate, complete, and reliable data to perform effective audits.

Findings

Table 4.30 provides a summary of whether access to data and its quality allow for the effective performance of remote internal audits.

Table 4.30: Access to data and its quality allow for the effective performance of remote internal audits

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	6,9	6,9	6,9
	Disagree	1	3,4	3,4	10,3
	Neither agree nor disagree	2	6,9	6,9	17,2
	Agree	17	58,6	58,6	75,9
	Strongly agree	7	24,1	24,1	100,0
	Total	29	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The findings indicate strong stakeholder confidence in the accessibility and quality of data supporting remote internal audits. A clear majority of respondents (82,7%) agreed that internal auditors can access the necessary data and that its quality is sufficient to conduct effective remote audits. This

reflects a positive perception of the organisation's digital infrastructure and data management practices, which are critical enablers of successful remote auditing. However, the 10,3% who disagreed and the 6,9% who were unsure suggest that some challenges or inconsistencies may still exist, possibly in certain departments or systems where data access is limited or data quality is not reliable enough.

Overall, the results are encouraging and suggest that most stakeholders view remote audits as viable from a data standpoint, though ongoing efforts to standardise access and improve data integrity across all audit areas would further strengthen audit outcomes. The next section discusses the overall conclusion.

The finding that a large majority of respondents expressed confidence in the accessibility and quality of data supporting remote internal audits is consistent with existing literature, which identifies robust digital infrastructure and reliable data as critical enablers of effective remote auditing. Prior studies emphasise that adequate system access, data integrity, and the availability of electronic audit trails significantly enhance auditors' ability to obtain sufficient and appropriate audit evidence in remote environments (Appelbaum et al., 2017; Eulerich, Kremin, & Wood, 2019; Kotb et al., 2020). The positive perceptions observed in this study suggest that the organisation has developed the necessary technological and data management capabilities to support remote audit activities. The presence of a small proportion of respondents who disagreed or were uncertain aligns with the literature, which notes that challenges related to system fragmentation, inconsistent access rights, or variable data quality may persist across departments, potentially constraining audit effectiveness in specific contexts (Sarens & Abdolmohammadi, 2011). Accordingly, this finding agrees with existing literature and reinforces the importance of continued investment in data governance, standardised access controls, and data quality management to further strengthen the effectiveness and reliability of remote internal auditing.

4.6.3.11 Overall discussion: Quality and effectiveness of remote internal audits

This section evaluates the perceived quality and effectiveness of remote internal audits based on professional standards, planning and execution, ICT infrastructure, and potential scope limitations. The findings provide a comprehensive picture of how remote audits are functioning in practice and highlight both strengths and areas for improvement.

- *Planning and execution:* A significant 89,7% of respondents affirmed the effective planning and supervision of remote audits, reinforcing the notion that audit processes have adapted well to digital environments. This high level of agreement suggests that the transition to remote auditing has maintained, if not enhanced, the rigour of audit processes. However, a minority

(6,9%) expressed disagreement, highlighting areas that may require further attention. These findings align with Alzeban and Gwilliam (2014), who stressed that well-structured audit planning and supervision are critical to audit quality, regardless of format. The small dissenting group (6,9%) underscores the need to continuously refine planning frameworks for remote contexts.

- *Adherence to auditing standards:* High levels of agreement (86,2%) with standard adherence suggest that remote audits maintain credibility and professionalism. This aligns with The IIA (2020b) guidance, which emphasises that the shift to remote audits does not exempt audits from conforming to ISPPiA. However, the level of uncertainty among respondents (10,3%) reflects a knowledge gap, pointing to the importance of continued professional training in remote audit environments.
- *ICT infrastructure adequacy:* Only 58,6% agreed that ICT infrastructure is sufficient, revealing an area of vulnerability. Consistent with findings by Vasarhelyi, Kuenkaikaew and Little(2015), the effectiveness of technology-driven audits depends heavily on system compatibility, reliability, and user readiness. The 31% neutrality and 10,3% disagreement highlight disparities in technological capacity across departments or organisations.
- *Effectiveness compared to on-site audits:* While 65,5% of respondents acknowledged QAIP improvements, the 34,5% who were unsure or disagreed may indicate poor visibility or inconsistent implementation of quality enhancements. According to Soh and Martinov-Bennie (2011), clear integration of feedback into QAIP processes is essential for audit credibility and continuous improvement. This indicates a need for better communication or more visible enhancements to QAIP procedures.
- *Comparative effectiveness with on-site audits:* Of the respondents, 44,8% supported the statement that remote audits are more effective, whereas an equal portion remained neutral: perceptions were split. This ambivalence echoes research by Bakar *et al.* (2021), which suggests that while remote auditing brings flexibility and efficiency, it may still fall short in certain high-engagement contexts, impacting perceived value and depth.
- *External and internal quality reviews:* Encouragingly, 76,4% confirmed annual internal reviews and 55,1% observed positive outcomes in external quality assurance reviews. This supports recommendations by The IIA (2021a) that regular internal and external quality reviews are integral to audit effectiveness. However, the relatively high neutrality (37,9%) about quality assurance review outcomes suggests a communication gap that could be addressed through clearer dissemination of review findings.

- *Scope limitations:* The concerns about limitations in audit scope (48,3% agreement) due to remote execution are significant. This is a significant concern, highlighting a possible compromise in risk coverage when audits are fully remote. This mirrors the study by Reding *et al.* (2022), which points out that certain high-risk or operational audits may be less effective when observation and physical verification are limited. This insight calls for the development of strategies to mitigate such risks and enhance audit comprehensiveness such as a hybrid approach or supplementary verification techniques to bridge gaps.
- *Data accessibility and quality:* A reassuring 82,7% agreed that data is accessible and of sufficient quality to support remote audits. However, a minority (10,3%) expressed concerns, which could point to inconsistencies in data delivery processes or departmental readiness. Ensuring reliable data access is fundamental for accurate and efficient audit processes, as highlighted in research by Alles (2021), which underscores the importance of standardised data pipelines and audit readiness.

To gain deeper insights into remote audit quality, a statistical analysis was conducted on the quantitative data gathered from the survey responses. The following section presents this analysis, focusing on two key statistical measures: the mean, which represents the average level of agreement, and the standard deviation, which indicates the variability or consistency of responses.

4.6.3.12 Statistical analysis

To interpret the data, each statement was broken down in terms of its mean (average response) and standard deviation (how spread out the responses are). The higher the mean, the more favourable the response, and the lower the standard deviation, the more agreement among respondents. These values are summarised in Table 4.31.

Table 4.31: Descriptive statistical analysis results

Quality	N	Mean	Std. Deviation
Remote internal audits are properly planned, executed, supervised, and reviewed.	29	4,10	1,012
Remote internal audits are conducted in conformance with the international standard for professional practice of internal auditing.	29	4,10	0,860
The ICT infrastructure is adequate to support remote internal audit activities, ensuring the effectiveness and efficiency of the internal audit process.	29	3,52	0,871
The scope and depth of a remote internal audit are negatively affected by procedures that cannot be conducted remotely.	29	3,07	1,252

Quality	N	Mean	Std. Deviation
Remote internal audits are more effective than on-site audits.	29	3,38	0,728
Internal audit unit has incorporated improvements in remote internal auditing into the QAIP.	29	3,76	0,830
The quality assurance review report by external service providers is positive regarding the conduct of remote audits.	29	3,59	0,780
Internal audit conducts annual internal quality assurance reviews to ensure remote internal audits comply with established standards.	29	3,93	0,753
Scope limitations arise as certain internal audit procedures cannot be performed, leading to uncovered risks.	29	3,34	1,111
Access to data and its quality enable the effective conduct of remote internal audits.	29	3,90	1,047

Source: Survey data, 2025 SPSS output

This section summarises the findings based on statistical analysis of quality regarding remote internal auditing, using the mean and standard deviation of survey responses to assess both general sentiment and response variability.

Respondents generally agreed that remote audits are properly planned, conducted in compliance with professional standards, and incorporated into quality assurance programmes. The below discussion provides more detail.

Regarding quality items, the following was stated: “*The remote internal audits are properly planned, completed, supervised, and reviewed*”. This item received a relatively high mean score of 4,10, indicating that respondents generally agreed that remote internal audits are carried out with proper planning, execution, supervision, and review. However, the standard deviation of 1,012 suggests a moderate level of variation in responses. While most respondents viewed the process positively, a few had concerns about the consistency or thoroughness of the audit procedures.

“*Remote internal audits are conducted in conformance with the ISPPIA*” also scored a high mean of 4,10, reflecting strong agreement that remote audits adhere to established international auditing standards. The lower standard deviation of 0,860 indicates more consistency in responses, suggesting a strong consensus among participants that remote audits meet professional standards.

The second-highest mean score was recorded for the statement, “*Internal audit performs internal quality assurance reviews on an annual basis to ensure remote internal audits comply with the standards*”, which received a mean of 3,93 and a standard deviation of 0,753. This high mean score suggests that most respondents agreed that internal quality assurance reviews are conducted

annually. The relatively low standard deviation reflects strong consensus, reinforcing the perception that this quality control process is a consistent practice.

The item *“Access to data and data quality allows for remote internal audits”* ranked third with a mean score of 3,90 and a standard deviation of 1,047. This indicates general agreement that access to reliable data supports the effectiveness of remote audits. However, the higher standard deviation suggests that some respondents may face challenges in this area, highlighting disparities in data availability or quality across different units or audits.

The statement *“The internal audit unit has incorporated improvements to remote internal auditing in the QAIP”* scored a mean of 3,76 with a standard deviation of 0,830. Respondents generally agree that enhancements have been made to remote audit processes through the QAIP. The moderate variability in responses suggests that while improvements are recognised, their impact may vary across different departments or audit teams.

This statement was followed by *“The quality assurance review report by external service providers is positive in conducting audits remotely”*, which had a mean of 3,59 and a standard deviation of 0,780. This indicates a moderately positive view of external quality assurance review findings concerning remote audit practices. The low variation in responses points to consistent feedback and external validation of remote audit practices.

With a mean of 3,52 and a standard deviation of 0,871, the statement, *“ICT infrastructure is adequate in facilitating remote internal audit work and ensuring internal audit is effective and efficient”*, demonstrates a generally positive, though somewhat reserved, perception of ICT readiness. The standard deviation shows relatively little variation in responses, suggesting that while respondents felt that the infrastructure is sufficient for remote audits, there is room for improvement to enhance effectiveness and efficiency further.

The statement, *“Remote internal audit is more effective than on-site internal audit”*, had a mean of 3,38 and a standard deviation of 0,728. This score reflects a neutral to slightly disagreeing stance, indicating that many respondents did not perceive remote audits to be superior to on-site audits. The standard deviation indicates that responses were relatively consistent, showing some consensus that remote audits may not be as effective as on-site audits.

The item, *“Limitation of scope due to certain internal audit procedures that cannot be conducted, leading to uncovered risks”*, scored a mean of 3,34 and a standard deviation of 1,111. The mean score points to a neutral to slightly negative view, with respondents acknowledging that remote audits may leave some risks unaddressed due to procedural limitations. The high variability in responses

highlights differing experiences or perspectives on how significantly scope limitations affect audit outcomes.

Lastly, the lowest-rated statement, *“The scope and depth of a remote internal audit are negatively affected by procedures that cannot be conducted remotely”*, received a mean of 3,07 and a standard deviation of 1,252. This suggests a neutral perception overall, with respondents feeling that the limitations of remote audits (due to some procedures being unable to be performed remotely) affect the scope and depth of audits, but not strongly. However, the high standard deviation indicates widely differing views. Some respondents felt the impact of these limitations more strongly than others, reflecting varied operational contexts or expectations. An overall interpretation is presented in the next section.

4.6.3.13 Overall interpretation of remote audit quality

The findings highlight several important factors that contribute to the success of remote internal audits:

- *Positive aspects:* Respondents generally agreed that remote audits are properly planned, conducted in compliance with professional standards, and incorporated into quality assurance programmes.
- *Areas for improvement:* There were concerns about the adequacy of ICT infrastructure (mean of 3,52), the limitations of remote audits (e.g., procedures that cannot be conducted remotely), and the effectiveness of remote versus on-site audits.
- *Variation:* Statements with higher standard deviations, including *“scope and depth of audits”* and *“limitations due to remote procedures”*, indicate that responses vary significantly among respondents, suggesting differing opinions on how these issues impact audit quality.

In conclusion, while there is overall positive feedback regarding the quality and effectiveness of remote audits, there are also recognised challenges, particularly around ICT infrastructure, limitations of remote procedures, and the effectiveness of remote audits compared to on-site audits.

The next section of the thesis examines the interrelationships among various factors related to the quality of remote internal audits using Spearman’s correlation analysis.

4.6.3.14 Spearman’s correlation analysis between quality and their impact on various dimensions of internal audit

The analysis uses Spearman’s rho correlation to identify relationships between key quality-related indicators (represented by Section C variables). Understanding these interrelationships provides

insights into the conditions that enhance or hinder the quality and effectiveness of remote internal audits.

Table 4.32: Spearman's correlation relationships between quality-related indicators

		Correlations									
		SectionC_1	SectionC_2	SectionC_3	SectionC_4	SectionC_5	SectionC_6	SectionC_7	SectionC_8	SectionC_9	SectionC_10
SectionC_1	Correlation Coefficient	1,000	0,599**	0,013	-0,143	0,187	0,481**	0,226	0,607**	-0,124	0,504**
	Sig. (2-tailed)		0,001	0,946	0,467	0,340	0,010	0,248	0,001	0,531	0,006
	N	28	28	28	28	28	28	28	28	28	28
SectionC_2	Correlation Coefficient	0,599**	1,000	0,224	-0,120	-0,048	0,570**	0,225	0,498**	0,015	0,355
	Sig. (2-tailed)	0,001		0,252	0,541	0,809	0,002	0,250	0,007	0,942	0,064
	N	28	28	28	28	28	28	28	28	28	28
SectionC_3	Correlation Coefficient	0,013	0,224	1,000	-0,158	0,075	0,165	0,028	0,208	0,197	0,349
	Sig. (2-tailed)	0,946	0,252		0,422	0,703	0,402	0,889	0,288	0,316	0,069
	N	28	28	28	28	28	28	28	28	28	28
SectionC_4	Correlation Coefficient	-0,143	-0,120	-0,158	1,000	-0,264	-0,211	0,114	-0,318	0,524**	-0,254
	Sig. (2-tailed)	0,467	0,541	0,422		0,174	0,281	0,564	0,099	0,004	0,192
	N	28	28	28	28	28	28	28	28	28	28
SectionC_5	Correlation Coefficient	0,187	-0,048	0,075	-0,264	1,000	0,016	0,204	0,056	-0,345	0,321
	Sig. (2-tailed)	0,340	0,809	0,703	0,174		0,935	0,297	0,778	0,072	0,096
	N	28	28	28	28	28	28	28	28	28	28
SectionC_6	Correlation Coefficient	0,481**	0,570**	0,165	-0,211	0,016	1,000	0,501**	0,604**	0,116	0,433*
	Sig. (2-tailed)	0,010	0,002	0,402	0,281	0,935		0,007	0,001	0,555	0,021
	N	28	28	28	28	28	28	28	28	28	28
SectionC_7	Correlation Coefficient	0,226	0,225	0,028	0,114	0,204	0,501**	1,000	0,308	0,158	0,478*
	Sig. (2-tailed)	0,248	0,250	0,889	0,564	0,297	0,007		0,111	0,421	0,010
	N	28	28	28	28	28	28	28	28	28	28
SectionC_8	Correlation Coefficient	0,607**	0,498**	0,208	-0,318	0,056	0,604**	0,308	1,000	0,025	0,448*
	Sig. (2-tailed)	0,001	0,007	0,288	0,099	0,778	0,001	0,111		0,898	0,017
	N	28	28	28	28	28	28	28	28	28	28
SectionC_9	Correlation Coefficient	-0,124	0,015	0,197	0,524**	-0,345	0,116	0,158	0,025	1,000	-0,084
	Sig. (2-tailed)	0,531	0,942	0,316	0,004	0,072	0,555	0,421	0,898		0,670
	N	28	28	28	28	28	28	28	28	28	28
SectionC_10	Correlation Coefficient	0,504**	0,355	0,349	-0,254	0,321	0,433*	0,478*	0,448*	-0,084	1,000
	Sig. (2-tailed)	0,006	0,064	0,069	0,192	0,096	0,021	0,010	0,017	0,670	
	N	28	28	28	28	28	28	28	28	28	28

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 4.32 explores the relationships between perceptions of various quality elements in remote internal audits. The variables include, among others, planning, standards compliance, ICT infrastructure, audit effectiveness, quality assurance practices, and data quality.

Variables analysed

- Section C_1: Remote internal audits are properly planned, completed, supervised, and reviewed.

- Section C_2: Remote internal audits are conducted in conformance with the international standard for professional practice of internal auditing.
- Section C_3: The ICT infrastructure is adequate to support remote internal audit activities, ensuring the effectiveness and efficiency of the internal audit process.
- Section C_4: The scope and depth of a remote internal audit are negatively affected by procedures that cannot be conducted remotely.
- Section C_5: Remote internal audits are more effective than on-site audits.
- Section C_6: Internal audit unit has incorporated improvements in remote internal auditing into the QAIP.
- Section C_7: The quality assurance review report by external service providers is positive regarding the conduct of remote audits.
- Section C_8: Internal audit conducts annual internal quality assurance reviews to ensure remote internal audits comply with established standards.
- Section C_9: Scope limitations arise as certain internal audit procedures cannot be performed, leading to uncovered risks.
- Section C_10: Access to data and its quality enable the effective conduct of remote internal audits.

The next section presents an in-depth interpretation of the correlation coefficients, offering insights into the strength and direction of the relationships between the key variables under study. By examining these coefficients, the analysis seeks to determine how closely related different factors are, such as the components of internal audit quality and overall remote audit effectiveness, and whether these relationships are statistically significant.

Key significant findings ($p < 0,05$)

i) Strong links between planning and audit quality

Effective planning, supervision, and review of remote internal audits are strongly correlated with key indicators of audit quality. Specifically proper planning, supervision, and review of remote internal audits correlated significantly with:

- Conformance to international standards ($\rho = 0,599$, $p = 0,001$).
- QAIP improvements ($\rho = 0,481$, $p = 0,010$).
- Annual internal quality assurance reviews ($\rho = 0,607$, $p = 0,001$).
- Access to quality data ($\rho = 0,504$, $p = 0,006$).

These results highlight that well-planned audits play a central role in ensuring high-quality audits and maintaining their effectiveness in remote contexts. Proper planning lays the foundation for achieving compliance with international standards and facilitates continuous improvements through quality assurance processes. Additionally, planning facilitates access to quality data, which is essential for the audit's success.

ii) Quality assurance practices reinforce one another

QAIP improvements are significantly associated with:

- Conformance to international standards ($\rho = 0,570$, $p = 0,002$).
- Positive quality assurance review by external providers ($\rho = 0,501$, $p = 0,007$).
- Annual internal quality assurance reviews ($\rho = 0,604$, $p = 0,001$).
- Access to quality data ($\rho = 0,433$, $p = 0,021$).

These findings suggest that when quality assurance improvement processes are prioritised, they positively influence both internal and external quality reviews. Additionally, the use of high-quality data to support audits is enhancing the overall audit process supporting better audit outcomes. This reinforces the importance of continuous improvement in quality assurance practices to ensure the overall effectiveness of remote internal audits.

iii) Scope limitations tied to uncovered risk

Scope limitations related to remote-only procedures have a significant negative correlation with limitation of scope/uncovered risk ($\rho = 0,524$, $p = 0,004$). This indicates that audits constrained by the limitations of remote auditing may be at higher risk of missing critical issues, which raises a significant quality concern. Remote audits that cannot fully address certain aspects of the audit process may inadvertently leave risks uncovered, compromising the comprehensiveness and effectiveness of the audit.

iv) Access to data is a quality enabler

Access to quality data is crucial for maintaining high auditing standards. The study found significant correlations between data access and various aspects of audit quality:

- Audit planning ($\rho = 0,504$, $p = 0,006$).
- QAIP improvements ($\rho = 0,433$, $p = 0,021$).
- External quality assurance review ($\rho = 0,478$, $p = 0,010$).
- Annual quality assurance reviews ($\rho = 0,448$, $p = 0,01$).

These results emphasise that good access to data is not only essential for effective planning but also supports both internal and external quality checks. Reliable and accurate data strengthens the entire audit process, from planning through to execution and final review; therefore, it is a key enabler of maintaining audit quality, particularly in remote auditing contexts.

v) Non-significant relationships ($p > 0,05$)

- While ICT infrastructure is essential for conducting remote audits, it showed no significant correlation with key audit variables, including planning ($\rho = 0,013$), standards ($\rho = 0,224$), and effectiveness.
- This implies that although technology is a necessary condition for remote auditing, the adequacy of ICT infrastructure alone does not guarantee audit quality or stakeholder satisfaction.
- Additionally, the perception that remote internal audits are more effective than on-site audits showed no statistically significant correlation, suggesting that the effectiveness of remote audits is not perceived as superior to traditional on-site audits in the context of the study sample.
- These findings underscore the importance of effective planning, access to quality data, and ongoing quality assurance processes in ensuring the success and quality of remote internal audits. They also highlight the limitations that arise when the remote audit scope is constrained, as well as the relatively low direct impact of ICT infrastructure on overall audit outcomes.

Together, these findings underscore the importance of comprehensive planning, continuous quality assurance improvements, and data accessibility as critical enablers of effective remote internal audits.

The above findings results were summarised in Table 4.33 for ease of reference.

Table 4.33: Top 5 most significant quality correlations

Variable 1	Variable 2	ρ (rho)	Sig. (p)
Planning ↔ Annual quality assurance reviews	0,607**	0,001	
Planning ↔ Conformance to standards	0,599**	0,001	
QAIP improvements ↔ Annual quality assurance reviews	0,604**	0,001	
Limitation by procedures ↔ Uncovered risk	0,524**	0,004	
Access to data ↔ Planning			

Table 4.33 presents the five most significant Spearman's rank correlations (ρ) between key variables related to internal audit quality. The correlations highlight the important relationships listed below that

reinforce how different aspects of the internal audit function interact to affect overall quality and effectiveness.

- *Planning ↔ Annual quality assurance reviews*: A strong positive relationship ($\rho = 0,607$, $p = 0,001$) indicates that effective planning is associated with regular annual quality assurance reviews.
- *Planning ↔ Conformance to standards*: A strong positive relationship ($\rho = 0,599$, $p = 0,001$) suggests that thorough planning correlates with adherence to internal auditing standards.
- *QAIP improvements ↔ Annual quality assurance reviews*: A strong positive relationship ($\rho = 0,604$, $p = 0,001$) implies that enhancements in the QAIP are linked to the frequency of annual quality assurance reviews.
- *Limitation by procedures ↔ Uncovered risk*: A moderate positive relationship ($\rho = 0,524$, $p = 0,004$) indicates that limitations in audit procedures are associated with the identification of previously uncovered risks.
- *Access to data ↔ Planning*: The relationship between access to data and planning was not specified in the provided data.

The following section discusses communication, the fourth determinant of remote internal audit effectiveness.

4.6.4 Section D analysis: Communication

Chambers and McDonald (2013a) identify communication as one of the key attributes of a highly effective internal audit function. The communication skills of internal auditors with management and stakeholders directly affect the effectiveness of internal audits (EY, 2016). According to Karagiorgos *et al.* (2011), communication with internal audit stakeholders (such as the audit committee, senior management, and board of directors) can be verbal or written, and includes the audit report as a crucial part of management-level communication (Conteh, 2021; Dejnaronk, Suwanno & Treetip, 2016)).

Mihret and Yismaw (2007b) and Pule (2014) argue that the ability of an internal audit function to provide useful audit findings and recommendations enhances management's interest in these recommendations. The audit process is not complete until the findings and recommendations have been communicated to the appropriate individuals at the right time. Internal auditors should issue a written audit report upon completion of the audit and conduct follow-ups to ensure that the recommendations are implemented.

The main objectives of this section are to determine whether: (i) internal audit timelines, scope, and objectives are properly communicated online before commencement of the remote audit; (ii) remote internal audit reports are clear, accurate, and communicated to management in a timely manner; (iii) face-to-face interactions are more effective for addressing follow-up questions than computer-mediated communication; (iv) ICT allows auditors and auditees to communicate remotely without significant downtime on servers and networks; and (v) remote reports of the internal audit function are followed up in a timely manner, and those with insufficient or no management response are appropriately documented and reported, including emerging risks.

The following section presents the findings from Section D of the questionnaire, which was distributed to management. Management was selected for this section because of their central role in receiving, responding to, and acting on internal audit communications. Their feedback provides critical insights into the clarity, timeliness, and usefulness of audit communications – factors that directly influence the effectiveness of the internal audit function. This section highlights their perspectives on communication, which is identified as the fourth determinant of internal audit effectiveness.

4.6.4.1 Question 1

Objective of the analysis

The aim of this question was to assess whether the timelines, scope, and objectives of the internal audit are communicated effectively online before the commencement of a remote audit. Effective communication of these elements is crucial for ensuring that all stakeholders have a clear understanding of the audit's purpose, scope, and schedule, thereby facilitating a smooth and efficient audit process. According to the Global Internal Audit Standards, Standard 11.2, quality communication is characterised by being accurate, objective, clear, concise, constructive, complete, and timely (The IIA, 2024a). Applying these principles to the communication of audit timelines, scope, and objectives ensures that all parties involved are well informed and aligned, which is particularly important in a remote audit setting where face-to-face interactions are limited.

Findings

Table 4.34 provides a summary of whether internal audit timelines, scope, and objectives are properly communicated online before the start of a remote audit.

Table 4.34: Internal audit timelines, scope and objectives are properly communicated online before commencement of the remote audit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	4,0	4,0	4,0
	Disagree	1	4,0	4,0	8,0
	Neither agree nor disagree	2	8,0	8,0	16,0
	Agree	7	28,0	28,0	44,0
	Strongly agree	14	56,0	56,0	100,0
	Total	25	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The findings show that a large majority of respondents (84%) believed that the timelines, scope, and objectives of internal audits are clearly communicated online prior to the start of remote audits. This reflects a strong level of stakeholder confidence in the planning and communication processes that support remote audit engagements, which are essential for ensuring alignment, preparedness, and cooperation across departments. However, the 8% who neither agreed nor disagreed and the 8% who disagreed indicate that some variability exists, possibly due to inconsistent communication practices across different audits or departments.

The finding that the majority of respondents perceived the timelines, scope, and objectives of remote internal audits to be clearly communicated prior to audit commencement is consistent with existing literature, which emphasises effective pre-audit communication as a critical success factor in both traditional and remote auditing contexts. Prior studies highlight that clear articulation of audit scope, objectives, and timelines enhances stakeholder preparedness, facilitates cooperation, and reduces misunderstandings during audit execution, particularly where face-to-face interaction is limited (Sarens & Abdolmohammadi, 2011; Alzeban & Gwilliam, 2014). The high level of agreement observed in this study suggests that internal audit functions have adapted their planning and communication practices effectively to support remote audit engagements. The presence of a small proportion of neutral and disagreeing responses aligns with the literature, which acknowledges that inconsistencies in communication practices across departments or audit engagements can affect stakeholder perceptions (Eulerich, Kremin, & Wood, 2019). Accordingly, this finding agrees with existing literature and reinforces the importance of consistent, clear, and standardised pre-audit communication to ensure alignment and engagement across all stakeholders in remote internal auditing environments.

Overall, the results suggest that remote internal audits are generally well structured and transparent in their initiation phase, but there is still room to enhance consistency and clarity in pre-audit communication to ensure all stakeholders are equally informed and engaged.

4.6.4.2 Question 2

Objective of analysis

The aim of this question was to assess whether remote internal audit reports are clear, accurate, and communicated to management in a timely manner. Effective communication of audit findings is essential for ensuring that management can make informed decisions and take appropriate actions to address identified issues.

The aim of this question was to assess whether remote internal audit reports are clear, accurate, and communicated to management in a timely manner, which are critical attributes of audit reporting quality. In remote auditing contexts, where face-to-face interactions are limited, the clarity and precision of written communication take on even greater importance. Audit reports serve as the primary channel for conveying audit findings, recommendations, and assurance levels, and any ambiguity or delay can undermine their usefulness.

Timely reporting ensures that management receives audit results while issues are still relevant and actionable, enabling prompt corrective measures and reducing the risk of escalation. Accuracy and clarity are equally vital, as they affect the credibility of the audit function and the degree to which management can rely on audit insights for decision-making. Identifying strengths or weaknesses in this area helps inform potential improvements in reporting practices, technology use, and auditor training to ensure remote audit outputs remain impactful and trusted.

Findings

Table 4.35 provides a summary of whether remote internal audit reports are clear, accurate, and communicated to management in a timely manner.

Table 4.35: Remote internal audit reports are clear, accurate and communicated to management in a timely manner

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	4,0	4,0	4,0
	Disagree	1	4,0	4,0	8,0
	Neither agree nor disagree	2	8,0	8,0	16,0
	Agree	9	36,0	36,0	52,0
	Strongly agree	12	48,0	48,0	100,0
	Total	25	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The findings indicate a high level of confidence in the communication effectiveness of remote internal audit reports. A substantial number of respondents (84%) agreed that these reports are clear, accurate, and communicated to management in a timely manner, underscoring the ability of the internal audit function to maintain reporting quality even in a remote environment. This is critical, as timely and well-structured reporting ensures that audit findings remain relevant, actionable, and aligned with organisational priorities.

While a small proportion of respondents either disagreed (8%) or were unsure (8%), the overwhelmingly positive response suggests that any issues in report communication are isolated rather than systemic. These results affirm that remote audit processes, when well executed, can deliver the same level of reporting clarity and timeliness as traditional on-site audits.

The finding that a substantial majority of respondents perceived remote internal audit reports as clear, accurate, and communicated in a timely manner is consistent with existing literature, which identifies effective audit reporting as a critical determinant of internal audit value and organisational impact. Prior studies emphasise that well-structured and timely audit reports enhance management's ability to understand audit findings, support informed decision-making, and facilitate the prompt implementation of corrective actions, regardless of whether audits are conducted on-site or remotely (Alzeban & Gwilliam, 2014; Eulerich, Kremin, & Wood, 2019). The strong positive perception observed in this study suggests that internal audit functions have successfully adapted their reporting processes to remote environments without compromising quality. The presence of a small proportion of neutral and dissenting responses aligns with literature acknowledging that reporting effectiveness may vary across engagements due to differences in report clarity, stakeholder expectations, or communication practices (Sarens & Abdolmohammadi, 2011). Accordingly, this finding agrees with existing literature

and reinforces the view that, when supported by effective communication practices, remote internal auditing can deliver reporting outcomes comparable to those of traditional on-site audits.

In conclusion, the data supports the view that the internal audit function effectively communicates results in remote settings, reinforcing its role in organisational governance and decision-making. Nonetheless, attention to the small group of dissenting or uncertain responses could help fine-tune communication practices and ensure continued trust in audit outputs across all departments.

4.6.4.3 Question 3

Objective of analysis

The aim of this question was to evaluate whether face-to-face interactions are perceived as more effective than computer-mediated communication, such as emails, video calls, or messaging platforms, for handling follow-up questions during remote internal audits. Follow-up communication is a vital aspect of the audit process, allowing auditors to clarify uncertainties, obtain additional evidence, and confirm management's responses to preliminary findings. Understanding these dynamics can inform improvements in auditor training, communication protocols, and technology use to ensure that follow-up processes remain effective and engaging, even in fully remote environments.

Findings

Table 4.36 summarises whether face-to-face interactions are more effective for addressing follow-up questions than computer-mediated communication.

Table 4.36: Face-to-face interactions are more effective for addressing follow-up questions than computer-mediated communication

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	8,0	8,0	8,0
	Disagree	8	32,0	32,0	40,0
	Neither agree nor disagree	4	16,0	16,0	56,0
	Agree	8	32,0	32,0	88,0
	Strongly agree	3	12,0	12,0	100,0
	Total	25	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The survey findings indicate a divided perception regarding the effectiveness of communication methods for addressing follow-up questions during remote internal audits. While 44% of respondents agreed that face-to-face interactions are more effective than computer-mediated communication, a nearly equal 40% disagreed and 16% remained neutral. This relatively even split suggests that while a slight majority favours traditional, in-person communication for its immediacy and clarity, a significant portion of stakeholders are either satisfied with or prefer digital communication tools. The neutral responses may reflect uncertainty or variability in experiences depending on the communication platform used or the complexity of the audit engagement.

The finding that stakeholder perceptions are divided regarding the effectiveness of face-to-face versus computer-mediated communication during follow-up processes in remote internal audits is consistent with existing literature, which presents a nuanced view of communication effectiveness in virtual audit environments. Prior studies acknowledge that face-to-face interaction is often perceived as more effective for complex discussions, clarification of audit issues, and relationship building due to its immediacy and richness of communication cues (Sarens & Abdolmohammadi, 2011). However, the literature also recognises that computer-mediated communication tools, such as video conferencing and collaborative platforms, can effectively support audit follow-ups by offering flexibility, efficiency, and timely interaction, particularly when appropriately matched to the nature of the audit issue (Appelbaum et al., 2017; Eulerich, Kremin, & Wood, 2019). The near-equal distribution of agreement and disagreement observed in this study aligns with scholarly evidence suggesting that communication effectiveness in remote audits is highly context-dependent, influenced by factors such as issue complexity, stakeholder preferences, and technological capability. Accordingly, this finding agrees with existing literature and supports the adoption of a flexible, hybrid communication approach that integrates both digital and in-person interactions to enhance clarity, responsiveness, and stakeholder engagement during remote audit follow-up processes.

Overall, these findings imply that no single communication method is universally superior in remote audits. Instead, organisations may benefit from adopting a flexible, hybrid communication strategy leveraging both computer-mediated communication and occasional in-person interactions where feasible to ensure clarity, responsiveness, and stakeholder engagement during the follow-up process.

4.6.4.4 Question 4

Objective of analysis

The aim of Question 4 in the questionnaire was to assess whether ICT enables auditors and auditees to communicate remotely without significant downtime on servers and networks. This inquiry is pivotal

in understanding the role of ICT in facilitating seamless communication during remote audits, ensuring that technical challenges do not impede the audit process.

Findings

Table 4.37 provides a summary of whether ICT allows auditors and auditees to communicate remotely without significant downtime on servers and networks.

Table 4.37: ICT allows for the auditors and auditees to communicate remotely without significant downtime on servers and networks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	4,0	4,0	4,0
	Disagree				
	Neither agree nor disagree	4	16,0	16,0	20,0
	Agree	14	56,0	56,0	76,0
	Strongly agree	6	24,0	24,0	100,0
	Total	25	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The finding that 80% of respondents believed that ICT enables effective remote communication between auditors and auditees without significant server or network downtime reflects a strong level of confidence in the technological infrastructure supporting remote internal audits. This suggests that most organisations have adopted or upgraded to reliable digital tools and platforms, such as video conferencing, cloud storage, and secure data-sharing systems, which allow for efficient and uninterrupted interactions during audit engagements.

The low percentage of strong disagreement (4%) indicates that technical disruptions are rare, which is crucial for maintaining audit timelines, data integrity, and smooth collaboration. However, the 16% of respondents who were unsure may point to inconsistent experiences across departments or past instances where ICT performance was less reliable. This could be due to variability in user training, outdated systems in certain areas, or differing levels of access to technical support.

The finding that a large majority of respondents perceived ICT infrastructure as enabling effective remote communication without significant server or network disruptions is consistent with existing literature, which identifies reliable information and communication technology as a foundational enabler of successful remote internal auditing. Prior studies highlight that stable digital platforms, such as video conferencing tools, secure cloud-based systems, and reliable network connectivity, facilitate

timely interaction, efficient evidence exchange, and continuity of audit activities in remote environments (Appelbaum et al., 2017; Eulerich, Kremin, & Wood, 2019; Kotb et al., 2020). The low level of disagreement observed in this study aligns with research indicating that organisations that invest in modern ICT infrastructure experience fewer technical disruptions and greater audit efficiency. The presence of a proportion of respondents who were uncertain reflects concerns noted in the literature regarding uneven ICT maturity, differences in user capability, or variability in technical support across organisational units (Sarens & Abdolmohammadi, 2011). Accordingly, this finding agrees with existing literature and reinforces the importance of sustained investment in ICT infrastructure, user training, and system support to ensure consistent and reliable communication in remote internal auditing contexts.

Overall, the results highlight that ICT is largely seen as a reliable enabler of remote audits, contributing to their viability and effectiveness. To maintain and build on this confidence, organisations should continue investing in robust IT infrastructure, user support, and cybersecurity, while also addressing pockets of uncertainty to ensure consistent communication quality across all audit settings.

4.6.4.5 Question 5

Objective of analysis

The objective of this question was to evaluate the timeliness and accountability of follow-up actions on remote internal audit reports, specifically examining whether management acts promptly on audit recommendations and whether there is transparent reporting on items with little or no progress.

This inquiry helps assess whether the organisation has mechanisms in place to track the implementation of audit recommendations, escalate unresolved issues, and report on delays or inaction. It also reflects on the overall responsiveness and accountability culture within the organisation. Ultimately, understanding stakeholders' perceptions on this matter is vital for evaluating the effectiveness, influence, and capacity for continuous improvement of the internal audit function in a remote environment.

Findings

Table 4.38 provides a summary of whether the remote reports of the internal audit function are followed up in a timely manner, and those with insufficient or no management response are appropriately documented and reported.

Table 4.38: Internal audit function remote reports are followed up in a timely manner, and those with insufficient or no management response are appropriately documented and reported

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree				
	Disagree	3	12,0	12,0	12,0
	Neither agree nor disagree	6	24,0	24,0	36,0
	Agree	8	32,0	32,0	68,0
	Strongly agree	8	32,0	32,0	100,0
	Total	25	100,0	100,0	

Source: Survey data, 2025 SPSS output

Discussion of findings

The analysis reveals that most respondents (64%) believed that remote internal audit function reports are followed up in a timely manner, and that there is adequate reporting on cases where management has taken little or no action. This reflects a generally positive perception of the effectiveness and accountability mechanisms surrounding remote audits, suggesting that audit recommendations are not only communicated clearly but are also being actively monitored for implementation.

The presence of timely follow-up and escalation of inaction is critical in ensuring that internal audits contribute meaningfully to risk mitigation, process improvement, and organisational governance. The results indicate that remote audits, despite their virtual nature, can sustain the oversight and pressure needed to drive corrective actions within management. However, the 24% of respondents who were neutral and the 12% who disagreed point to areas where follow-up processes may be inconsistent or underdeveloped. These figures suggest that in some departments or specific audits, there may be delays, lack of transparency, or insufficient communication regarding the status of audit findings and management responses.

The finding that a majority of respondents perceived remote internal audit reports to be followed up in a timely manner, with adequate reporting on instances of management inaction, is consistent with existing literature that emphasises the importance of follow-up mechanisms in ensuring internal audit effectiveness. Prior studies indicate that systematic follow-up and escalation processes are critical for translating audit findings into corrective action and for reinforcing accountability within management, regardless of whether audits are conducted remotely or on-site (Alzeban & Gwilliam, 2014; Mihret & Yismaw, 2007). The generally positive perceptions observed in this study suggest that remote internal auditing can sustain effective oversight and monitoring of audit recommendations, thereby supporting organisational governance and risk mitigation. The presence of neutral and disagreeing responses aligns with the literature, which acknowledges that follow-up practices may vary across departments

and audit engagements due to differences in management responsiveness, communication practices, or tracking mechanisms (Sarens & Abdolmohammadi, 2011; Eulerich, Kremin, & Wood, 2019). Accordingly, this finding agrees with existing literature and highlights the need for consistent, transparent, and well-communicated follow-up processes to ensure the sustained impact of remote internal audits across the organisation.

In summary, while the data indicates that the internal audit function is largely effective in driving follow-up actions remotely, it also highlights the need for greater consistency and clearer reporting practices. Strengthening these areas would help ensure that all findings receive the attention they warrant and that audit efforts translate into meaningful organisational improvements.

The next section presents a comprehensive discussion on communication, focusing on how effectively the internal audit unit engages with management. It examines the clarity, timeliness, and transparency of communication, as well as the methods used to share audit findings, recommendations, and follow-up actions. The section also highlights areas where communication can be strengthened to enhance collaboration and understanding across the organisation.

4.6.4.6 Overall conclusion: Communication in remote internal audits

The analysis of communication in remote internal audits has provided valuable insights into the effectiveness of various communication methods and tools used within the audit process. This section evaluated the communication of audit timelines, scope, objectives, report clarity, the effectiveness of follow-up communication, the role of ICT, and the timeliness of reporting on management actions. Overall, the findings suggest that while the internal audit function is generally effective in remote settings, there are areas that require attention to further improve consistency and clarity.

- *Effective communication of audit timelines, scope, and objectives:* Most respondents (84%) indicated that internal audit timelines, scope, and objectives were communicated clearly and effectively online before the commencement of remote audits. This is aligned with Global Internal Audit Standards, Standard 11.2, which stresses the importance of accurate, clear, and timely communication (The IIA, 2024a). While the responses demonstrate strong confidence in the pre-audit communication process, the 8% who disagreed or were neutral suggest that there may be occasional inconsistencies. These inconsistencies can be addressed by ensuring more uniform communication practices across different audits and departments (Chambers & McDonald, 2013a; Mihret & Yismaw, 2007a).
- *Clarity and timeliness of remote audit reports:* The results show that 84% of respondents agreed that remote internal audit reports are clear, accurate, and communicated to management in a timely manner. This reflects positively on the ability of the internal audit

function to maintain high reporting standards, even in a remote context. Timeliness and clarity are essential for decision-making, ensuring that audit findings remain actionable and aligned with organisational priorities (EY, 2016). The few dissenting responses suggest that there could be occasional delays or lack of clarity in specific cases, underscoring the need to maintain rigorous reporting standards ((Dejnaronk, Kiamco & Lau, 2016).

- *Effectiveness of communication methods for follow-up questions:* There was divided opinion on whether face-to-face communication is more effective than computer-mediated communication for addressing follow-up questions. While 44% of respondents favoured in-person interactions for their immediacy and clarity, 40% disagreed, indicating that computer-mediated communication is perceived as effective by a significant portion of the respondents. This suggests that a hybrid approach combining digital tools with in-person interactions when feasible may be the most effective strategy for addressing follow-up questions (Karagiorgos *et al.*, 2011).
- *Role of ICT:* The data showed that 80% of respondents believed that ICT enables effective communication between auditors and auditees without significant downtime. This reflects the crucial role of digital tools in facilitating remote audits, ensuring seamless communication, and reducing the risk of technical disruptions (Conteh, 2021). However, the 16% of respondents who were neutral or uncertain about ICT's effectiveness may indicate areas where technical infrastructure or training could be further improved.
- *Timeliness and accountability of follow-up actions:* Most respondents (64%) indicated that remote internal audit function reports are followed up on time and that there is adequate reporting on cases where management has taken little or no action. This highlights the effectiveness of the internal audit function in holding management accountable, even in a remote setting. Nevertheless, the 24% who were neutral or the 12% who disagreed suggest that follow-up processes are not always consistent and that there is room for improvement in ensuring that all audit recommendations are addressed in a timely manner.

In conclusion, the communication effectiveness in remote internal audits is generally strong, with most respondents expressing confidence in the clarity, timeliness, and accuracy of communications throughout the audit process. However, there are areas where improvements can be made, particularly in ensuring consistent communication across audits, enhancing the follow-up process, and leveraging a hybrid communication strategy for follow-up questions. These findings align with the arguments made by Mihret and Yismaw (2007b) and Pule, (2014), who stress the importance of clear communication and timely follow-ups to enhance management's interest in audit recommendations.

By addressing the identified gaps, organisations can further enhance the effectiveness of their remote internal audit functions.

The following section presents the analysis, focusing on two key statistical measures: the mean, which represents the average level of agreement, and the standard deviation, which indicates the variability or consistency of responses.

4.6.4.7 Statistical analysis

Statistical analysis can be used to illustrate the amount of data used in the research, as well as the maximum, minimum, average values, and standard deviation for each variable. These values are summarised in Table 4.39.

Table 4.39: Descriptive statistical analysis results

Communication	N	Mean	Std. Deviation
Internal audit timelines, scope, and objectives are properly communicated online before commencement of the remote audit.	25	4,28	1,061
Remote internal audit reports are clear and accurate and are timely communicated to management.	25	4,20	1,041
Face-to-face interactions cater more for follow-up questions than computer-mediated communication.	25	3,08	1,222
ICT allows for the auditors and auditees to communicate remotely without significant downtime on servers and networks.	25	3,96	0,889
The internal audit function's remote reports are followed up timeously, and there is reporting on those for which little or no action has been taken by management.	25	3,84	1,028

Source: Survey data, 2025 SPSS output

This section summarises the findings based on statistical analysis of communication regarding remote internal auditing, using the mean and standard deviation of survey responses to assess both general sentiment and response variability.

For communication-related items, the statement “*Internal audit timelines, scope, and objectives are properly communicated online before the commencement of the remote audit*” ranked first with a score of 4,28 and a standard deviation of 1,061. On average, respondents agreed that the timelines, scope, and objectives of internal audits are communicated well before starting the remote audit, as the mean was relatively high (4,28 on a scale of 1 to 5). The standard deviation was 1,061, which indicates a moderate variation in the responses – some respondents may have disagreed or strongly agreed.

The second-highest mean score was attributed to the statement *“Remote internal audit reports are clear, accurate, and communicated to management in a timely manner”*, which scored 4,20 with a standard deviation of 1,041. This statement also had a high average score 4,20, suggesting that respondents generally believed that remote internal audit reports are clear, accurate, and communicated in a timely manner. The standard deviation was 1,041, which again indicates moderate variability in the responses.

The item *“ICT allows auditors and auditees to communicate remotely without significant downtime on servers and networks”* ranked third, with a mean score of 3,96 and a standard deviation of 0,889. The mean of 3,96 suggests that while respondents were generally satisfied with ICT’s ability to facilitate communication without much downtime, it is not a perfect score. The standard deviation of 0,889 is relatively low, indicating that most respondents agreed with the statement, as there was less variation in responses.

The statement *“Internal audit function remote reports are followed up in a timely manner, and there is reporting on those for which little or no action has been taken by management”* ranked fourth with a score of 3,84 and a standard deviation of 1,028. The mean of 3,84 indicates that respondents generally agreed that remote audit reports are followed up in a timely manner, but there is still some room for improvement. The standard deviation of 1,028 shows moderate variation in responses, meaning there are differences in how strongly respondents felt about the timeliness and follow-up on the reports.

Lastly, the item *“face-to-face interactions cater more to follow-up questions compared to computer-mediated communication”* ranked fifth with a score of 3,08. This statement had a lower mean 3,08, suggesting a neutral to slightly disagree response on average. It indicates that respondents think face-to-face interactions are somewhat more effective for follow-up questions than remote communication, but there is a significant spread in responses, as the standard deviation was 1,222, showing more variation in how strongly people feel about this.

4.6.4.8 Discussion of findings

Generally, respondents are positive about the communication of internal audit timelines, objectives, and reports. Face-to-face interaction was seen as more beneficial for follow-up questions, though opinions varied significantly. Respondents were satisfied with ICT’s ability to support remote communication without significant downtime, and there was a moderate level of agreement that while remote audit reports are followed up in a timely manner, this could be improved. The standard deviations demonstrated a moderate to high level of variation in responses, indicating differing opinions on some statements.

A summarised overview on two key statistical measures: the mean, which represents the average level of agreement, and the standard deviation, which indicates the variability or consistency of responses, is presented in the section that follows.

4.6.4.9 Statistical overview

The descriptive statistics for the communication-related items revealed the following:

- *Highest agreement*: “Internal audit timelines, scope, and objectives are properly communicated online before commencement of the remote audit” (mean: 4,28).
- *Moderate agreement*: “Internal audit function remote reports are followed up timely, and there is reporting on those with little or no action taken by management” (mean: 3,84).
- *Neutral to slight disagreement*: “Face-to-face interactions cater more for follow-up questions compared to computer-mediated communication” (mean: 3,08).
- The standard deviations ranged from 0,889 to 1,222, indicating varying degrees of consensus among respondents.

The findings suggest that while remote internal audits are generally well structured and transparent in their initiation phase, there is still room to enhance consistency and clarity in pre-audit communication to ensure all stakeholders are equally informed and engaged. Additionally, the mixed perceptions regarding the effectiveness of face-to-face versus computer-mediated communication highlight the need for a balanced approach, leveraging both methods as appropriate to maintain effective communication during follow-up interactions.

The next section of the thesis examines the interrelationships among various factors related to the communication of remote internal audits using Spearman’s correlation analysis.

4.6.4.10 Spearman’s correlation analysis between communication and their impact on various dimensions of internal audit

This section investigates the role of communication as a variable influencing the effectiveness of remote internal audits. The correlation data presented in Table 4.40 examines how various dimensions of communication interact with other factors in the remote internal audit process. Understanding these relationships is crucial for enhancing audit effectiveness, particularly in remote settings.

Table 4.40: Spearman's correlation for communication

Spearman's rho Correlations						
		Internal audit timelines, scope and objectives are properly communicated online before commencement of the remote audit.	Remote internal audit reports are clear and accurate and are timely communicated to management.	Face-to-face interactions cater more for follow-up questions than computer-mediated communication.	ICT allows for the auditors and auditees to communicate remotely without significant downtime on servers and networks.	The internal audit function's remote reports are followed up timeously, and there is reporting on those for which little or no action has been taken by management.
Internal audit timelines, scope and objectives are properly communicated online before commencement of the remote audit.	Correlation Coefficient	1,000	0,884**	-0,175	0,254	0,800**
	Sig. (2-tailed)		0,000	0,402	0,220	0,000
	N	25	25	25	25	25
Remote internal audit reports are clear and accurate and are timely communicated to management.	Correlation Coefficient	0,884**	1,000	-0,382	0,269	0,732**
	Sig. (2-tailed)	0,000		0,060	0,193	0,000
	N	25	25	25	25	25
Face-to-face interactions cater more for follow-up questions than computer-mediated communication.	Correlation Coefficient	-0,175	-0,382	1,000	-0,020	-0,145
	Sig. (2-tailed)	0,402	0,060		0,925	0,490
	N	25	25	25	25	25
ICT allows for the auditors and auditees to communicate remotely without significant downtime on servers and networks.	Correlation Coefficient	0,254	0,269	-0,020	1,000	0,462*
	Sig. (2-tailed)	0,220	0,193	0,925		0,020
	N	25	25	25	25	25
The internal audit function's remote reports are followed up timeously, and there is reporting on those for which little or no action has been taken by management.	Correlation Coefficient	0,800**	0,732**	-0,145	0,462*	1,000
	Sig. (2-tailed)	0,000	0,000	0,490	0,020	
	N	25	25	25	25	25
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Table 4.40 offers a clear and structured interpretation of the Spearman's rho correlation results for the communication section of the remote internal audit study. This table explores how effectively communication is taking place in the context of remote internal audits, from planning to follow-up. The interpretation of the correlations is discussed below.

4.6.4.11 Interpretation of correlations

Strong positive correlation between audit planning and reporting

The statement “*Internal audit timelines, scope, and objectives are properly communicated online before the audit*” demonstrated a very strong positive correlation with “*Audit reports are clear, accurate, and timely*” ($\rho = 0,884$, $p = 0,000$), and a strong correlation with “*Reports are followed up timeously*” ($\rho = 0,800$, $p = 0,000$).

These findings underscore the critical role of clear, early communication in driving the success of remote internal audits. When audit parameters are well defined and communicated upfront, the audit

process becomes more structured, which significantly enhances both the clarity and timeliness of reporting as well as the effectiveness of follow-up actions. This reinforces the principle that well-executed initial communication is foundational to the overall impact and efficiency of remote internal audits. Early and clear communication helps set expectations and facilitates the efficient preparation and dissemination of audit findings.

Audit report clarity and timeliness are linked to effective follow-up

A strong positive correlation was identified between the perception that “*Audit reports are clear, accurate, and timely*” and the practice of “*Follow-up reporting on unresolved issues*” (Spearman’s $\rho = 0,732$, $p = 0,000$). This statistically significant relationship highlights the critical role of clear and timely audit communication in driving effective follow-up actions.

When audit findings are communicated in a concise, accurate, and timely manner, management is more likely to respond promptly and take appropriate corrective measures. This, in turn, strengthens the overall impact of the audit function by ensuring that identified issues are not only acknowledged but also resolved in a systematic and timely way.

These results underscore the importance of high-quality reporting practices as a key enabler of audit effectiveness and organisational accountability.

ICT infrastructure supports follow-ups

The statement “*ICT allows for communication without significant downtime*” shows a moderate positive correlation with “*Follow-up of audit reports*” (Spearman’s $\rho = 0,462$, $p = 0,020$). This suggests that reliable ICT infrastructure plays a supporting role in enhancing the effectiveness of audit follow-up activities.

By minimising communication disruptions, ICT ensures that remote and distributed audit processes can proceed smoothly. Stable digital communication channels enable auditors and management to engage consistently on outstanding issues, thus facilitating more timely and coordinated follow-up actions. While not the primary driver, ICT serves as a critical enabler of continuity and responsiveness in the audit life cycle.

Face-to-face vs remote communication: No significant support for face-to-face preference

The perceived effectiveness of face-to-face interactions for follow-up questions showed a weak negative and statistically non-significant correlation with actual follow-up activities ($\rho = -0,145$, $p = 0,490$). This indicates that while some individuals may subjectively believe that in-person

communication is more effective, there is no empirical evidence to suggest it leads to better follow-up outcomes in the context of remote audits.

In practice, these findings highlight that the absence of face-to-face engagement does not significantly hinder follow-up effectiveness. Remote communication tools appear to adequately support audit quality and continuity, even without physical interaction. This reinforces the viability of remote audits, particularly in environments where digital engagement has become the norm.

There is a general tendency among respondents who preferred face-to-face communication to view technology-enabled interactions less favourably. Although none of the correlations between face-to-face preference and audit communication variables reached statistical significance, the relationship with audit report communication came relatively close suggesting a possible area for future research.

Overall, while traditional in-person methods still hold perceived value, the data suggests that digital communication tools can effectively support remote internal audits without being significantly undermined by preferences for face-to-face interaction. These results reflect the broader acceptance and growing normalisation of remote audit practices in the professional environment.

Importantly, the data underscores the central role of communication in the audit process. Establishing clear and open communication channels before the audit begins not only facilitates the timely delivery of audit reports but also enhances management's responsiveness to audit findings. This interconnection between planning, reporting, and follow-up illustrates the need for a well-coordinated, integrated approach to internal auditing to ensure its overall effectiveness.

Table 4.41 summarises the correlation results for communication for ease of interpretation.

Table 4.41: Top 3 most significant correlations

Variable 1	Variable 2	ρ (rho)	Sig. (p)
Communication before audit ↔ Timely reports	0,884**	0,000	
Communication before audit ↔ Follow-up of reports	0,800**	0,000	
Timely reports ↔ Follow-up of reports	0,732**	0,000	

Source: Survey data, 2025 SPSS output

The correlation matrix presented in Table 4.41 indicates strong positive relationships between key elements of the audit process, highlighting the interconnectedness of communication, reporting, and follow-up activities.

The next section represents the finding from the Spearman's rho correlation analysis that was used to test the four formulated hypotheses.

4.7 Hypotheses

This study set out to examine the effectiveness of remote internal auditing, focusing on its impact on audit quality, stakeholder assurance, management support, and IT security. The research was guided by four hypotheses that explored whether remote auditing influences the effectiveness of the internal audit function, the value delivered to stakeholders, the role of management and communication, and the implications of working remotely on information security.

This section presents the findings from the Spearman's rho correlation analysis used to test the four formulated hypotheses. The data was analysed using non-parametric methods, suitable for ordinal Likert-scale responses. The analysis was conducted across four sections: stakeholder perceptions (Section A), management support (Section B), quality assurance (Section C), and communication (Section D).

The findings of this study provide meaningful insights into each of the hypotheses:

4.7.1 Hypothesis 1

- Null hypothesis (H_0): There is no correlation between remote auditing and the effectiveness of internal auditing.
- Alternative hypothesis (H_1): There is a positive correlation between remote auditing and the effectiveness of internal auditing
- Remote auditing significantly impacts internal audit effectiveness.

Findings

Significant positive correlations were identified between remote audit practices and indicators of audit effectiveness:

- Proper planning and supervision ($\rho = 0,481$, $p = 0,010$).
- Positive quality assurance review reports ($\rho = 0,501$, $p = 0,007$).
- Access to quality data ($\rho = 0,504$, $p = 0,006$).
- Communication of reports and timelines ($\rho = 0,884$, $p < 0,001$).

Conclusion: The null hypothesis is therefore being rejected, indicating clear statistical evidence that remote auditing positively affects internal audit effectiveness. These results are supporting existing literature, where Eulerich, Wagener and Wood (2022) and Lorentzon, Fotoh and Mugwira (2023) emphasise the importance of planning, ICT utilisation, data access, and timely communication in enhancing audit effectiveness. Similarly, Vasarhelyi, Kogan and Tuttle (2015) note that technology improves audit efficiency and quality, and Lenz, Sarens and Jeppesen (2018) highlight that structured

audit processes and stakeholder engagement are key determinants of audit effectiveness. Collectively, these findings confirm that well-executed remote auditing can strengthen the overall effectiveness of internal audit functions.

4.7.2 Hypothesis 2

Hypothesis statement: There is a positive relationship between the effectiveness of the internal audit function and stakeholders' perceptions of the timeliness, relevance, and usefulness of audit assurance.

Findings

- Strong positive correlations were found between stakeholder support for remote auditing and audit effectiveness ($\rho = 0,619$, $p = 0,001$).
- Communication clarity and timeliness were highly associated with successful audit outcomes ($\rho = 0,732$ to $0,800$, $p < 0,001$).
- Reports are followed up appropriately where findings are communicated in a timely manner.

Conclusion: Hypothesis 2 is supported. These results indicate that remote internal auditing is delivering timely and relevant assurance to stakeholders. Respondents generally are agreeing that remote audits meet their needs, suggesting that internal audit functions are successfully adapting to remote environments without compromising stakeholder value. These findings are supporting existing literature, where Mihret and Yismaw (2007a) and Pule (2014b) emphasise the importance of timely and actionable audit information, Eulerich, Wagener and Wood (2022) highlight the effectiveness of remote audits in delivering timely outputs, Lorentzon, Fotoh and Mugwira (2023) underscore the critical role of clear communication, and Lenz, Sarens and Jeppesen (2018) note that stakeholder perception is a key determinant of audit effectiveness. Collectively, these findings confirm that remote auditing can achieve stakeholder-relevant outcomes effectively.

4.7.3 Hypothesis 3

Hypothesis statement: There is a positive correlation between greater support from top management, effective communication, high internal audit quality, and the ability to meet stakeholder expectations will be related to increased audit effectiveness.

Findings

Strong and significant correlations emerged across multiple dimensions:

- Attention from top management ↔ Meeting availability ($\rho = 0,737$, $p = 0,000$).
- Digital evidence submission ↔ Audit effectiveness ($\rho = 0,586$, $p = 0,001$).

- Clear communication ↔ Follow-up of remote reports ($\rho = 0,732$ to $0,800$, $p < 0,001$).
- Internal quality reviews ↔ Audit planning and improvement ($\rho = 0,604$ to $0,607$, $p = 0,001$).

Conclusion: Hypothesis 3 is strongly supported. These results indicate that management support, audit quality mechanisms, and communication are significantly enhancing the effectiveness of remote auditing. Correlational analysis is confirming strong relationships between these variables and audit effectiveness. Specifically, management involvement, clear communication, adherence to quality assurance practices, and effective use of digital evidence are contributing to improved audit outcomes. These findings are supporting existing literature, where Mihret and Yismaw (2007a, 2007b) and Pule (2014b) emphasise the importance of senior management support, Lenz, Sarens & Jeppesen (2018) highlight audit quality mechanisms as determinants of effectiveness, Eulerich, Wagener and Wood (2022) and Lorentzon, Fotoh and Mugwira (2023) underscore communication and follow-up as key success factors, and Vasarhelyi, Kogan and Tuttle (2015) stress the role of technology in enhancing audit efficiency and outcomes. Collectively, these findings confirm that well-supported, quality-focused, and communicative remote audits significantly strengthen internal audit effectiveness. While many stakeholders did not report significant IT security concerns, variation in responses indicates that for some, IT-related challenges still exist. A summary of the hypothesis impact, interpretation, and outcomes are provided in Table 4.42.

Table 4.42: Summary of hypotheses outcomes and interpretation

Hypothesis	Findings	Conclusion
H_1 Null hypothesis (H_0): There is no correlation between remote auditing and the effectiveness of internal auditing. Alternative hypothesis (H_1): There is a positive correlation between remote auditing and the effectiveness of internal auditing.	Significant positive correlations were identified between remote audit practices and indicators of audit effectiveness: • Proper planning and supervision ($\rho = 0,481$, $p = 0,010$). • Positive quality assurance review reports ($\rho = 0,501$, $p = 0,007$). • Access to quality data ($\rho = 0,504$, $p = 0,006$). • Communication of reports and timelines ($\rho = 0,884$, $p < 0,001$).	❌ Rejected Null hypothesis is rejected. Statistical evidence that remote auditing positively impacts the effectiveness of internal auditing.

Hypothesis	Findings	Conclusion
H₂ There is a positive relationship between the effectiveness of the internal audit function and stakeholders' perceptions of the timeliness, relevance, and usefulness of audit assurance.	• Strong positive correlations were found between stakeholder support for remote auditing and audit effectiveness ($\rho = 0,619$, $p = 0,001$). • Communication clarity and timeliness were highly associated with successful audit outcomes ($\rho = 0,732$ to $0,800$, $p < 0,001$). • Reports are followed up appropriately where findings are communicated in a timely manner.	✓ Supported • Remote internal auditing can deliver timely and relevant assurance to stakeholders. • Respondents generally agreed that remote audits provide timely and relevant assurance to stakeholders. • This suggests that internal audit functions are successfully adapting to remote environments without compromising on the delivery of stakeholder value.
H₃ There is a positive correlation between greater support from top management, effective communication, high internal audit quality, and the ability to meet stakeholder expectations will be related to increased audit effectiveness.	Strong and significant correlations emerged across multiple dimensions: • Attention from top management ↔ Meeting availability ($\rho = 0,737$, $p = 0,000$). • Digital evidence submission ↔ Audit effectiveness ($\rho = 0,586$, $p = 0,001$). • Clear communication ↔ Follow-up of remote reports ($\rho = 0,732$ to $0,800$, $p < 0,001$). • Internal quality reviews ↔ Audit planning and improvement ($\rho = 0,604$ to $0,607$, $p = 0,001$).	✓ Supported Hypothesis 3 is strongly supported. • Management support, audit quality mechanisms, and communication significantly enhance the effectiveness of remote auditing. • Correlational analysis confirmed strong relationships between these variables and audit effectiveness. • Specifically, management involvement, clear communication, and adherence to quality assurance practices were shown to significantly enhance the impact of remote audit.

The results provide strong statistical support for all three hypotheses. H₁ is confirmed by significant positive correlations between remote audit practices and key measures of audit effectiveness, such as planning, supervision, data access, and report timeliness. H₂ is supported by evidence that remote internal audit delivers timely, relevant assurance aligned with stakeholder needs, particularly through clear and prompt communication. H₃ is strongly validated, highlighting the importance of top management support, internal audit quality processes, and effective communication in enhancing remote audit effectiveness. These findings collectively demonstrate that remote auditing, when well supported and executed, can be both credible and highly effective.

Overall, this research confirms that remote internal auditing is an effective and adaptable approach that can meet modern organisational needs. However, its success depends on several critical factors, including strong management support, stakeholder engagement, and continuous quality

improvement. The findings contribute to the evolving understanding of remote auditing, offering both theoretical insights and practical implications for internal audit functions in a digitally driven landscape.

In addition, stakeholders' preferences between remote and traditional face-to-face internal audits offer valuable insight into the perceived effectiveness of remote auditing, as they are unlikely to favour a method that does not meet their needs or expectations. The questionnaire included open-ended questions aimed at exploring the advantages and challenges associated with remote internal audits. These responses were analysed thematically, and the following section presents a detailed discussion of the key benefits and limitations identified. The findings help contextualise the broader impact of remote auditing on operational effectiveness, auditor performance, and overall organisational outcomes.

4.8 Remote internal audits versus face-to-face internal audits

To assess stakeholders' preferences between remote internal audits and traditional face-to-face audits, participants were asked to respond to the open-ended question: "Which do you prefer – traditional face-to-face internal audits or remote internal audits, and why?". The responses revealed a clear inclination toward remote auditing, followed by notable interest in hybrid approaches, while a minority expressed a preference for traditional face-to-face methods.

Preference for remote internal audits (64% of respondents)

A substantial majority of respondents (64%) indicated a preference for remote internal audits. Several key advantages were cited to support this preference:

- *Increased productivity and flexibility:* Respondents noted that remote audits enabled flexible working hours and eliminated the need for commuting, thus enhancing overall productivity. Additionally, the ability to manage their schedules autonomously contributed to improved work-life balance and reduced stress levels. Remote auditing also allowed for better preparation prior to meetings.
- *Operational efficiency:* The digital environment was viewed as conducive to more efficient audit processes. Respondents highlighted the ease of accessing documentation electronically, the reduction in physical paperwork, and the speed of retrieving records through centralised systems. Setting up virtual meetings with auditees was considered time-saving and convenient.
- *Enhanced collaboration and audit quality:* Platforms, such as Microsoft Teams, were valued for promoting seamless communication and document sharing. Participants emphasised that remote auditing enables audit teams to work from various locations, making the process more

agile and responsive. This dynamic approach was seen as contributing to improved audit quality, more accurate information gathering, and reduced audit risk.

Preference for a hybrid approach (25% of respondents)

Approximately (25%) of respondents expressed a preference for a hybrid audit approach, which combines elements of both remote and face-to-face methodologies. This model was considered optimal for leveraging the following advantages of each method depending on the context:

- *Task-specific benefits:* Supporters of the hybrid approach believed that remote audits were well suited for routine tasks such as document submission, review, and follow-up. However, they emphasised that certain stages of the audit process, particularly initial planning meetings and final presentations, benefited significantly from in-person interaction. These face-to-face engagements were perceived as valuable for building trust, clarifying complex issues, and fostering effective communication.
- *Contextual flexibility:* The hybrid model was praised for its adaptability. Respondents noted that organisations could tailor their audit approach based on the specific nature, scope, and sensitivity of each audit engagement, thereby achieving a balanced and effective audit process.

Preference for traditional face-to-face audits (7% of respondents)

A minority of respondents (7%) indicated a preference for traditional face-to-face internal audits. Their reasoning centred on the importance of direct interpersonal interaction in facilitating a comprehensive understanding of organisational processes and associated risks:

- *Depth of engagement:* Participants in this group believed that face-to-face communication enabled richer, more nuanced exchanges with auditees. They argued that such interactions often lead to more insightful audit findings.
- *Nonverbal communication and immediacy:* It was noted that certain information may not be effectively communicated in a virtual setting. Elements such as body language, informal discussions, and real-time clarifications were considered vital components of the audit process, particularly in complex or sensitive audit context.

No clear preference or uncertainty (3% of respondents)

A small proportion of respondents (3%) reported no clear preference between remote and face-to-face audits. This ambivalence may stem from limited exposure to one or both approaches, or a belief

that both methods can be equally effective when implemented appropriately. Further investigation may be necessary to determine the underlying causes of this uncertainty.

Conclusion on analysis of stakeholder preference for remote internal audit or face-to-face audits

The analysis of stakeholder preferences reveals a strong endorsement of remote internal auditing, with 64% of respondents favouring this method due to its flexibility, efficiency, and enhanced collaboration. A significant proportion (25%) supported a hybrid approach, recognising the contextual strengths of combining remote and face-to-face elements to optimise audit effectiveness. Meanwhile, a small minority (7%) preferred traditional face-to-face audits, citing the value of in-person communication and richer engagement. The remaining 3% expressed no clear preference, suggesting potential for further research into factors influencing stakeholder views. Overall, these findings underscore a growing acceptance of remote and hybrid auditing models, reflecting their alignment with modern operational needs and stakeholder expectations.

The next section discusses the challenges and advantages of remote internal audit. In identifying both advantages and challenges ensures remote internal auditing is implemented thoughtfully, effectively, and sustainably.

4.9 Challenges and advantages of remote internal auditing

Identifying the advantages and challenges enables organisations to make informed decisions, manage potential risks, and continuously improve audit processes. By understanding both the benefits and the limitations, organisations can develop strategies to maximise effectiveness while mitigating drawbacks. This balanced perspective also supports stakeholder confidence and aligns remote audit practices with broader organisational goals.

4.9.1 Advantages

Respondents highlighted a broad range of advantages associated with remote internal auditing. These are summarised below:

- *Enhanced document management:* Remote audits promote a fully digital environment, reducing the reliance on physical documents and allowing for centralised, secure storage and retrieval.
- *Reduction in travel-related expenses and time:* The elimination of travel requirements contributes to cost savings and allows auditors to allocate more time to core auditing activities.
- *Effective use of technology:* The application of digital tools enhances data analysis capabilities and enables more streamlined audit workflows.

- *Paperless operations:* A move toward electronic documentation supports organisational sustainability initiatives and simplifies document handling.
- *Flexible audit processes:* Remote audits offer greater flexibility in scheduling, enabling auditors and auditees to engage from multiple locations and accommodate varied working hours.
- *Increased efficiency:* Many respondents noted that remote auditing allows for faster execution of audit tasks, contributing to improved overall effectiveness.
- *Transcription and recording capabilities:* Virtual platforms allow meetings to be recorded and transcribed automatically, facilitating accurate and timely documentation of audit discussions.
- *Real-time document collaboration:* Cloud-based tools enable simultaneous document sharing and editing, fostering better coordination among audit team members and stakeholders.
- *Broader access to processes and personnel:* Remote access removes geographic barriers, allowing auditors to examine a wider range of operations and connect with stakeholders across different locations.
- *Prompt information sharing:* The digital environment accelerates the exchange of audit-related information, thereby reducing process bottlenecks.
- *Simplified logistics:* Remote audits mitigate the logistical complexities involved in arranging travel, accommodation, and on-site coordination.
- *Faster turnaround times:* Efficiencies associated with digital communication and collaboration often lead to quicker audit completions.
- *Minimised risk of document loss:* The use of digital repositories ensures safer document management and easier retrieval.
- *Robust audit trail:* Electronic communication systems provide a comprehensive, time-stamped record of interactions and data exchanges, supporting transparency and accountability.
- *Greater personnel flexibility:* Remote audits enable team members to work asynchronously or across time zones, enhancing resource allocation.
- *Ongoing engagement:* Continuous digital engagement with auditees promotes real-time feedback and iterative improvements throughout the audit process.
- *Cost reduction:* Many respondents noted a decrease in audit hours and related fees, with remote audits proving to be more cost-effective than traditional methods.
- *Fewer delays:* The streamlined nature of remote audits often results in fewer interruptions or delays in completing audit engagements.

4.9.2 Challenges

Despite the numerous advantages, the following significant challenges associated with remote internal auditing were also identified:

- *Access to information:* Difficulties in retrieving or accessing audit-relevant data in appropriate formats can impede progress.
- *Lack of infrastructure for large file sharing:* Without appropriate file-sharing systems, delays may occur due to inefficient document exchange.
- *Delayed responses:* Auditors frequently encounter delays in receiving requested documents or responses from auditees, impacting the audit timeline.
- *Availability and cooperation of auditees:* In remote settings, securing consistent engagement from auditees and management can be more difficult.
- *Limited stakeholder buy-in:* A lack of enthusiasm or support for remote audits from key personnel may reduce process effectiveness.
- *Technical disruptions:* Power outages, internet connectivity issues, and software malfunctions can significantly disrupt audit activities on both the auditor's and auditee's sides.
- *Low engagement in meetings:* Virtual environments may hinder full participation, particularly during critical phases such as the opening and closing of meetings.
- *Weakened interpersonal relationships:* Building rapport and trust with clients and staff can be challenging without face-to-face interaction.
- *Digital literacy gaps:* Limited technical skills among some auditors or auditees may hinder the effective use of audit platforms.
- *Communication delays:* Virtual communication may introduce lags or misunderstandings, affecting clarity and efficiency.
- *Questionable integrity of audit evidence:* Ensuring the authenticity and completeness of digital audit evidence can be more challenging than with physical documentation.
- *Delays in evidence submission:* Receipt of supporting documentation may be postponed due to technological or procedural inefficiencies.
- *Loss of nonverbal cues:* Remote audits preclude the observation of body language, which can limit contextual understanding during interviews or discussions.
- *Network and IT issues:* Poor internet connectivity and IT system failures present recurring obstacles to audit continuity.

- *Reduced human interaction:* The absence of face-to-face interaction may reduce collaborative opportunities and weaken auditor-client relationships.
- *Archiving and document retrieval challenges:* Inadequate digital archiving systems can hinder the timely retrieval of required documents.
- *Incomplete submissions:* Auditees may submit incomplete or incorrect documents, necessitating additional clarification and time.
- *Security concerns:* Ensuring the protection of sensitive audit data in a virtual environment poses a notable risk.

4.9.3 Conclusion on advantages and challenges

The findings from Section 4.9 reveal that remote internal auditing offers a wide array of significant advantages, including enhanced efficiency, cost reductions, improved document management, and greater flexibility using digital tools and virtual collaboration. These benefits align well with the evolving demands of modern audit environments, enabling more agile and responsive audit practices.

While respondents also identified several challenges, such as data access issues, technical disruptions, limited engagement, and concerns over communication and evidence integrity, these are largely logistical or technical in nature and can be mitigated with appropriate planning, infrastructure, and training.

Overall, the analysis suggests that the advantages of remote internal auditing clearly outweigh the challenges, supporting its continued adoption and integration as a viable and effective audit approach in both current and future organisational contexts.

4.10 Chapter summary

This chapter presented and discussed the findings derived from the analysis of four structured questionnaires, each targeting key dimensions of remote internal auditing: (i) stakeholder perceptions, (ii) management support, (iii) audit quality, and (iv) communication effectiveness. The analysis was aligned with the study's research objectives and interpreted in relation to relevant literature.

Overall, stakeholder perceptions of remote internal audits were generally positive, with strong agreement on their effectiveness, value addition, and contribution to risk advisory functions. However, opinions were mixed regarding their superiority over traditional on-site audits, reflecting some uncertainty, particularly in complex or high-risk environments echoing concerns noted in existing research.

The analysis of stakeholder preferences indicates a clear endorsement of remote internal auditing, primarily due to its flexibility, efficiency, and enhanced collaboration. A significant portion also supported a hybrid approach, valuing the combination of remote and face-to-face elements to improve audit effectiveness. Only a small minority preferred traditional face-to-face audits, citing the benefits of in-person interaction. A few respondents remained neutral, highlighting the need for further research into the factors that shape stakeholder preferences. Overall, the findings reflect a growing acceptance of remote and hybrid audit models in line with contemporary operational demands. Management support emerged as a critical factor influencing the success of remote audits. While most respondents reported strong engagement, particularly in areas such as audit planning, virtual availability, and responsiveness to audit issues, there was notable variability in perceptions. Inconsistent support and delays in evidence submission suggest a need for more standardised and visible management involvement across all levels of the organisation.

The quality of remote internal audits was rated highly, especially in terms of planning, adherence to standards, and access to digital records. Nonetheless, challenges such as limitations in audit scope, concerns about ICT infrastructure, and limited visibility of quality improvements were reported. These findings indicate the potential value of adopting a balanced, hybrid audit approach and improving the communication of quality review outcomes.

Communication during remote audits was largely effective, with respondents highlighting the clarity, timeliness, and accuracy of audit-related communications. Although the use of ICT facilitated efficient information exchange, there is room for improvement in ensuring consistency, strengthening follow-up mechanisms, and optimising communication strategies. A hybrid model may prove especially beneficial in addressing post-audit queries and maintaining engagement.

Both management and internal auditors recognised the advantages and challenges of remote auditing. Key benefits included increased efficiency, cost savings, and operational flexibility, positioning remote auditing as a sustainable model for contemporary audit environments. While logistical and technical issues persist, they are largely manageable through proper planning, infrastructure enhancement, and targeted training. The overall findings strongly support the continued adoption and integration of remote internal audit practices.

The next chapter summarises the study, offers recommendations, and presents concluding remarks in relation to the research objectives.

5 CHAPTER 5: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This final chapter revisits the research objectives outlined in Chapter 1 and presents the conclusions drawn from the study. The primary objective of the research was:

PO1: *To assess the effectiveness of remote internal auditing and to formulate recommendations for improvement.* (refer to Section 1.3).

To support the achievement of this overarching goal, the following secondary objectives were developed and addressed throughout the research:

- SO1: To conceptualise internal audit effectiveness and value add within the context of remote internal auditing.
- SO2: To identify and test the factors that significantly influence internal audit effectiveness in a remote auditing environment
- SO3: To test whether communication, stakeholder perception, management support and quality effectiveness mediates the relationship between remote internal auditing and internal audit effectiveness.
- SO4: To examine the relationship between remote internal auditing and stakeholders' assurance expectations.

The analysis and findings presented in this chapter are derived from data collected through four structured questionnaires, each focused on a specific aspect of remote internal auditing:

- Stakeholder perceptions.
- Management support.
- Audit quality.
- Communication practices.

This chapter provides a comprehensive summary of the study's findings, draws final conclusions, and offers recommendations aimed at enhancing the effectiveness and value of the internal audit function in the context of remote auditing. These recommendations address the final secondary objective:

- SO5: To formulate evidence-based recommendations and methodology for improving remote internal auditing practices to enhance audit effectiveness and value addition.

In addition, this chapter highlights the study's limitations and suggests areas for future research. The following sections outline how each objective was achieved, based on the findings discussed in

Chapters 2 through 4, and present conclusions grounded in both the literature review and empirical evidence.

In line with the problem statement for the study, the research objectives were evaluated and a conclusion on both the main and secondary objectives is provided below to address the research problem stated.

5.2 Secondary Objective 1: To conceptualise internal audit effectiveness and value addition within the context of remote internal auditing (Chapter 2)

This objective was addressed in Section 2.5, where the effectiveness of the internal audit function was discussed. Internal audit effectiveness is influenced by several interrelated factors, including alignment with organisational goals, management support, stakeholder perceptions, the quality of audit work, effective communication, and the capacity to respond to organisational risks. An effective internal audit function is not only expected to complete its audits but also to play a critical role in enhancing risk management, governance, and internal control processes ultimately adding value to the organisation.

Given that the effectiveness of remote internal auditing is shaped by a combination of these factors, this study examined each of them in detail through structured questionnaires. These questionnaires focused on stakeholder perceptions, management support, audit quality, and communication providing empirical evidence on how each element contributes to the overall effectiveness of remote internal audits.

The literature supports the view that internal audit effectiveness is closely linked to stakeholder expectations. While standardised metrics can be applied to evaluate internal audit performance, the subjective perceptions of stakeholders remain vital. Dittenhofer (2001) and Tackie, Marfo-Yiadom, and Oduro Achina, (2016) argue that the expectations and satisfaction of stakeholders, particularly senior management and audit committees, are key indicators of internal audit value. This underscores the importance of interpersonal relationships and direct engagement with stakeholders, as highlighted by Cohen, Krishnamoorthy and Wright, (2004) and Gramling, Maletta, Schneider, (2004).

The IIA (2017a) reinforces this view by stating that internal auditing is considered effective when it provides the audit committee and executive management with the assurance that they need to rely on the organisation's systems and processes to achieve its objectives. This involves offering assurance on the effectiveness and efficiency of governance, risk management, and control activities.

Recent studies further emphasise that strong interpersonal relationships and ongoing dialogue between auditors and key stakeholders enhance the credibility and impact of internal auditing

(Chambers *et al.*, 2011; Mohammadi *et al.*, 2013). In this context, the findings of this study contribute meaningfully to the broader understanding of how remote internal audits can remain effective when these key determinants are met and continuously improved.

Value addition was successfully addressed in Section 2.3, where the definition and mission of internal auditing were discussed, including the foundational concept of value add. The literature review established that value addition in internal auditing refers to the ability of the internal audit function to support an organisation in achieving its strategic objectives by improving processes, strengthening governance, enhancing risk management, and providing independent assurance.

In the context of remote internal auditing, the principle of value addition remains central, although its application evolves due to the digital nature of audit engagements. Remote audits add value by ensuring the continuity of assurance services despite physical access limitations, such as during pandemics or travel restrictions. By leveraging digital platforms, remote audits enable auditors to assess internal controls, review documentation, and interact with stakeholders, thus maintaining oversight and reinforcing organisational resilience.

A major benefit of remote internal auditing, namely increased operational efficiency, is also confirmed through empirical findings. Remote audit processes reduce travel time and costs, allow greater flexibility, and promote the use of automated tools and data analytics to identify risks faster and more accurately. These efficiencies translate into cost savings and more timely audit delivery, both of which contribute to the perceived value of the internal audit function.

The thesis further explored how value is perceived by key stakeholders, such as senior management and audit committees. As discussed in Chapter 4, stakeholders reported that remote audits provided relevant, actionable, and timely insights, which enhanced decision-making and demonstrated the internal audit function's alignment with organisational needs. These results confirmed that remote auditing is not only efficient but also effective in delivering value.

In conclusion, the concept of value add was clearly defined, contextualised for remote auditing, and validated through both literature and empirical findings. The expectations of stakeholders were met, and the enhanced efficiency of the remote audit approach further confirmed that remote internal auditing adds measurable value to organisations.

The following section provides a comprehensive analysis of the key factors that affect the effectiveness of internal audit activities within the selected South African entities.

5.3 Secondary Objective 2: To identify and test the factors that significantly influence internal audit effectiveness in a remote auditing environment

This objective was realised in Section 2.5 and Section 2.6, which discussed the effectiveness of the internal audit function. It emerged that among other things, the following determinants play an important role in assessing the effectiveness of internal audit functions within any organisation: stakeholder perception, support by management, quality of work done by the internal audit function, and communication of the internal audit function.

The four key determinants, stakeholder perception, management support, the quality of work performed by the internal audit function, and effective communication practices, were thoroughly tested in this study through a combination of literature review and empirical data gathered from the questionnaires. The analysis in Chapter 4 confirmed the significant role that each of these factors plays in determining the overall effectiveness of remote internal auditing. The findings suggest that improvements in each of these areas could further enhance the effectiveness of remote internal audits within the selected South African entities. Therefore, the objective to assess the effectiveness of remote internal auditing has been addressed successfully, and the findings provide a clear roadmap for improving remote audit practices.

The next section addresses the final portion of this research. It aims to conclude the finding of the study, focusing on the core determinants that have significant impacts on the internal audit effectiveness and to provide recommendations based on the research findings of the study.

5.4 Secondary Objective 3: To test whether communication, stakeholder perception, management support and quality effectiveness mediates the relationship between remote internal auditing and internal audit effectiveness.

To address this secondary research objectives, this chapter presents and analyses the collected data. The analysis and findings discussed here are based on responses gathered from four questionnaires: (i) stakeholders' perception of internal audit, (ii) management support, (iii) quality, and (iv) communication.

The findings regarding stakeholders' perceptions of internal audit value, the level of management support for internal audit activities, the quality of internal audit processes, and the effectiveness of internal audit communication are discussed below to determine remote internal audit's effectiveness.

The next section relates to stakeholder perception, which is the first determinant of internal audit effectiveness.

5.4.1 Section A: Stakeholder perception

Stakeholder perception is vital for remote internal audits because it directly affects trust, cooperation, and the overall effectiveness of the audit process. When stakeholders view remote audits as credible and valuable, they are more likely to provide timely access to information, support the findings, and implement the recommendations. Positive perception also helps overcome resistance to the shift from traditional audits, fosters smoother communication, and encourages continuous improvement through constructive feedback. Ultimately, how stakeholders perceive the audit determines its success and influence within the organisation.

The following section highlights the primary insights into stakeholder perceptions, identified as the first determinant of internal audit effectiveness. Understanding how key stakeholders perceive the role, performance, and value of the remote internal audit function is essential, as these perceptions significantly shape the level of support, resources, and authority allocated to the audit activity. By analysing these insights, this section aims to underscore the critical impact of stakeholder expectations and attitudes on the overall success and credibility of remote internal audit practices within the selected entities.

5.4.1.1 Key findings on stakeholder perceptions

The combined results from the descriptive and correlational analyses indicate that stakeholders generally view remote internal auditing as both effective and valuable, particularly in terms of assurance provision, value addition, risk advisory, and overall organisational contribution.

Respondents identified several benefits, including increased efficiency, cost savings, real-time collaboration, improved access to key personnel, and stronger support for timely decision-making and risk management especially in dynamic or decentralised environments. These advantages, along with the shift toward a more sustainable and paperless approach, highlight the potential of remote auditing as a viable long-term model. However, concerns regarding its comparative effectiveness and technology-related challenges highlight the need for a balanced and adaptable approach. This requires strategic communication, hybrid flexibility, digital maturity, and ongoing stakeholder engagement.

The next subsections highlight the key findings identified relating to stakeholder perception.

Provision of timely and adequate assurance

Stakeholders predominantly agreed that remote audits deliver timely and adequate assurance, which is essential for facilitating informed decision-making within organisations. The data revealed a high mean score of 4,10 and an agreement rate of 82,8%, indicating strong stakeholder confidence in the

capacity of remote auditing to provide relevant and reliable insights. This positive perception underscores the growing acceptance of remote audit methodologies as a viable alternative to traditional on-site audits, particularly in dynamic and rapidly changing environments.

Although the correlation analysis between timely assurance and perceived internal audit effectiveness yielded a moderate relationship ($\rho = 0,344$), the result was not statistically significant ($p = 0,092$). Nevertheless, this positive trend suggests a potentially meaningful association that may reach statistical significance with a larger sample size.

These findings are consistent with prior research, such as Hudaib and Haniffa (2021), who emphasise the capability of remote audits to enhance organisational oversight by offering real-time insights and adaptive audit practices. As organisations continue to digitise their operations, the ability of internal audit functions to deliver timely assurance remotely may become a critical determinant of their perceived value and effectiveness.

Continuous risk identification and advisory

Stakeholders demonstrated strong confidence in the capacity of the internal audit function to provide ongoing advisory support in identifying and mitigating both current and emerging risks. This is reflected in a high level of agreement (82,7%) and a mean response score of 4,03. These results underscore the evolving perception of internal audit – not merely as a compliance mechanism but as a proactive strategic partner within the broader framework of enterprise risk management. The ability of remote auditing to adapt to changing risk profiles and provide timely insights positions it as a vital contributor in complex, volatile business environments.

Despite this strong confidence, the Spearman's rho analysis revealed a negligible correlation between stakeholders' perceptions of the risk advisory role of internal audit and other measures of audit performance. For example, the correlation between ongoing risk advisory and perceived audit effectiveness was virtually non-existent ($\rho = 0,002$). This disconnect suggests that while stakeholders value risk-related insights, they may not explicitly associate these advisory contributions with the overall effectiveness or impact of the remote internal audit function.

One plausible explanation for this misalignment lies in potential visibility or communication gaps. While internal audit teams may provide valuable risk intelligence, stakeholders may undervalue their strategic relevance if these contributions are not effectively communicated, documented, or linked to broader organisational outcomes. This reinforces the importance of transparency, stakeholder engagement, and the strategic framing of audit deliverables.

The finding is consistent with prior literature, such as Arena *et al.* (2006), which underscore the emerging role of internal auditors as integral players in enterprise risk management, particularly under conditions of uncertainty. The authors argue that internal audit can and should act as a forward-looking partner, providing insights that extend beyond compliance to enhance resilience and strategic foresight. However, for this role to be fully recognised, internal audit must bridge the perceptual divide between risk advisory contributions and demonstrable audit effectiveness.

Value addition to the organisation

The results reveal a strong perception among stakeholders that remote audits contribute positively to organisational value, as reflected by a mean score of 4,00 and an agreement rate of 79,3%. This high level of consensus highlights a growing appreciation of the internal audit function, particularly in its remote form – not only as a mechanism for compliance and risk mitigation but also as a driver of broader organisational goals, including enhanced governance, process optimisation, and operational efficiency.

These findings align with previous research, such as Alzeban and Gwilliam (2014), who contend that internal auditing, when effectively aligned with an organisation's strategy, acts as a catalyst for value creation. By identifying inefficiencies, ensuring regulatory compliance, and recommending targeted improvements, internal audits contribute to informed decision-making and long-term performance enhancement.

Remote auditing further amplifies these benefits by enabling continuous monitoring and broader audit coverage, free from the limitations of physical presence. This flexibility enhances the responsiveness of the audit function, allowing for the timely identification and management of risks – an especially valuable capability in dynamic or decentralised environments. Additionally, the use of remote audit technologies improves data access and facilitates communication, leading to more timely, relevant, and actionable insights.

Nevertheless, the perception of value remains subjective and can be influenced by how well audit outcomes are communicated and integrated into strategic decision-making. While stakeholders acknowledge the benefits, internal audit teams must consistently demonstrate their impact through measurable results and alignment with organisational priorities. Clear reporting, active collaboration with management, and a focus on forward-looking insights are essential to reinforcing the perception of internal audit as a value-adding function.

In conclusion, the findings affirm that remote audits are not only operationally feasible but also strategically valuable. To maintain and strengthen this perception, internal audit functions must

continue evolving toward a more consultative and strategic role – one that directly supports organisational performance, agility, and resilience.

Effectiveness compared to on-site auditing

Stakeholder perceptions regarding the comparative effectiveness of remote auditing versus traditional on-site auditing were mixed. The mean response score of 3,41 indicates moderate agreement, with nearly half of respondents (48,3%) expressing neutrality and only 44,8% affirming the effectiveness of remote audits relative to their on-site counterparts. This ambivalence suggests that while remote auditing has gained traction, scepticism or uncertainty remains among a substantial portion of stakeholders regarding its ability to fully replicate or exceed the perceived robustness of on-site audit engagements.

Despite this general hesitation, further analysis revealed a significant and noteworthy relationship between perceived audit effectiveness and stakeholder support for remote auditing (Spearman's $\rho = 0,619$, $p = 0,001$). This was the only statistically significant correlation identified in the study, highlighting the central role that perceptions of effectiveness play in shaping stakeholder acceptance of remote audit methodologies. In other words, when stakeholders view remote audits as effective, they are significantly more likely to support their continued use and integration into the organisation's audit strategy.

This finding aligns with audit legitimacy theory (Power, 2003), which posits that the perceived credibility and efficacy of audit practices are essential for their acceptance and institutionalisation within organisations. If stakeholders, such as senior management, audit committees, and regulatory bodies, believe that remote audits uphold the standards of assurance, independence, and risk oversight traditionally associated with on-site audits, they are more likely to legitimise and support the shift to remote audit models.

The presence of mixed views could stem from several factors, including concerns about the depth of interaction during remote audits, limitations in assessing certain physical controls, or technological barriers that may affect audit scope and communication. It also suggests a possible generational or experiential divide, where stakeholders more accustomed to traditional auditing methods may be less inclined to fully trust digital approaches.

To bridge this gap and enhance stakeholder confidence, audit functions must not only maintain but actively demonstrate audit quality in remote environments. This includes leveraging digital tools to enhance evidence collection, fostering transparent communication, and ensuring that remote audits meet or exceed the standards of accuracy, thoroughness, and independence traditionally associated with on-site engagements.

In conclusion, while remote audits are still in a transitional phase in terms of stakeholder perception, their acceptance is strongly tied to demonstrated effectiveness. Audit functions must therefore prioritise not only operational performance but also strategic communication to solidify stakeholder trust and institutional legitimacy.

Stakeholder support for remote auditing

The overall mean score for stakeholder support for remote internal auditing was 3,41, with a standard deviation of 0,865, indicating moderate variability in responses and a degree of underlying hesitancy. While a notable majority of respondents (75,9%) expressed support for remote audits, the findings suggest that full organisational buy-in remains a work in progress. This ambivalence may be attributed to several factors, including limited exposure to or familiarity with remote audit platforms, concerns about technological reliability, and a residual preference for traditional, on-site audit practices that offer direct interaction and tangible verification.

Importantly, the most significant outcome from the correlation analysis was the strong and statistically significant positive relationship between stakeholder perceptions of remote audit effectiveness and their overall support for remote audit practices (Spearman's $\rho = 0,619$, $p < 0,01$). This finding clearly indicates that stakeholder support is closely tied to perceptions of efficacy: the more effective stakeholders believe remote audits to be, the more likely they are to endorse and support their use.

The theoretical implications of this result align closely with audit legitimacy theory (Power, 2003), which asserts that stakeholder support and trust in audit practices are contingent on perceptions of legitimacy, often shaped by how well those practices deliver on their intended purpose. In the context of remote auditing, legitimacy is earned not merely through regulatory compliance or procedural alignment but also through demonstrable value delivery and operational effectiveness. When stakeholders are convinced of the audit function's ability to meet or exceed expectations, despite the absence of traditional on-site methods, support and institutional endorsement naturally follow.

This is also supported by Alzeban and Gwilliam (2014), who argue that stakeholder trust in internal audit functions is heavily influenced by the perceived value and contribution of those functions to organisational goals. Innovations such as remote auditing will only gain traction if they are seen not as compromises or substitutions but as enhancements that maintain or improve audit quality, efficiency, and responsiveness.

Consequently, internal audit functions seeking to expand or institutionalise remote auditing must focus on both technical proficiency and perception management. Transparent communication, regular feedback loops, and evidence-based demonstrations of audit value are crucial in building stakeholder

confidence. By systematically addressing concerns and showcasing successful remote audit outcomes, organisations can move closer to achieving full stakeholder buy-in.

In summary, while stakeholder support for remote auditing is evident to a degree, it remains conditional and somewhat cautious. The path to broader acceptance lies in strengthening the perceived legitimacy of remote audits through consistent, high-quality performance and effective stakeholder engagement strategies.

Impact of IT on remote auditing

Stakeholders expressed mixed opinions regarding the role of IT in supporting remote audit practices. While a majority (62%) did not perceive IT as a barrier to effective auditing, a significant minority (31%) disagreed, indicating concerns about the limitations or challenges posed by audit-related technologies. This divergence in opinion reflects an underlying complexity in how IT is experienced across different organisational contexts and stakeholder groups.

Statistical analysis revealed weak and statistically insignificant correlations between perceptions of IT and both audit effectiveness ($\rho = 0,116$, $p = 0,582$) and stakeholder support for remote auditing ($\rho = 0,096$, $p = 0,648$). These results suggest that, at least within the scope of this study, IT is not perceived as a direct determinant of either perceived audit quality or broader stakeholder acceptance. In other words, while IT is a necessary enabler of remote auditing, its presence alone does not appear to significantly influence overall perceptions of audit value or legitimacy.

Interestingly, the standard deviation for stakeholder responses related to IT was the highest among all measured variables ($SD = 1,122$), indicating substantial variation in stakeholder experiences and attitudes. This wide dispersion likely reflects disparities in several contextual factors, such as varying levels of digital literacy among staff, unequal access to technological infrastructure, and differing degrees of comfort with remote tools. Furthermore, concerns about cybersecurity, data privacy, and the reliability of audit software may contribute to scepticism or hesitation, as supported by Bierstaker *et al.* (2014), who emphasise that technological readiness and user trust are key challenges in the digital transformation of audit functions.

The weak correlations and wide range of stakeholder views underscore the importance of ensuring technological consistency and accessibility across audit environments. To address these disparities, organisations may benefit from targeted training initiatives designed to enhance users' digital competencies, build confidence in remote audit tools, and promote best practices in IT governance. Additionally, improving communication about how technology supports audit objectives could help bridge perception gaps and foster more unified stakeholder buy-in.

In summary, while IT is a fundamental component of remote auditing, its role in shaping stakeholder perceptions of audit effectiveness and support appears to be indirect and highly variable. Addressing these variations through strategic training, infrastructure investment, and change management may be critical to unlocking the full potential of digital audit environment.

Continuous risk identification and advisory

The findings indicate broad stakeholder agreement that remote audits play a valuable role in the continuous identification and mitigation of risks, as evidenced by a mean score of 4,03. This score reflects a strong belief in the capacity of remote audits to proactively address emerging risks and provide real-time insights, which are crucial for effective risk management. By offering timely recommendations and monitoring risk factors, remote audits are perceived to enhance an organisation's ability to respond to both current and potential risks, thus contributing to a more dynamic and responsive audit function.

However, despite this general agreement, Spearman's rho analysis revealed a negligible correlation between the variable of continuous risk identification and advisory and other key audit performance measures. For example, the correlation with audit effectiveness was extremely low ($\rho = 0,002$), suggesting that stakeholders do not strongly associate the provision of ongoing risk advisory with the overall perceived value of the audit function. This weak correlation may indicate that while stakeholders recognise the importance of risk identification, they may not necessarily link it directly to the broader effectiveness or impact of the remote internal audit process.

One possible explanation for this disconnect could be related to issues of visibility and communication. Even though internal audit teams may be providing valuable risk-related insights, these contributions might not always be clearly communicated or integrated into the broader organisational decision-making process. If stakeholders are not fully aware of the ongoing risk advisory provided by remote audits, or if these insights are not adequately highlighted in audit reports or discussions, the perceived value of these activities could be diminished. In other words, the effectiveness of risk identification and advisory might be underappreciated due to a lack of tangible visibility or insufficient documentation of the value added.

Moreover, stakeholders may be focusing more on traditional audit deliverables, such as compliance checks and financial reporting, which are easier to quantify and measure, rather than on the broader, more strategic role of risk advisory. This discrepancy between perception and reality may reflect a limited understanding of the evolving role of internal audit in enterprise risk management, particularly in the context of remote auditing.

To bridge this gap, it is essential for internal audit teams to emphasise the strategic importance of their ongoing risk advisory role, ensuring that risk insights are effectively communicated to stakeholders. This could involve enhancing reporting mechanisms, integrating risk advisory findings into broader management discussions, and making a stronger case for how these contributions directly support organisational resilience and long-term success.

In summary, while stakeholders generally acknowledge the value of remote audits in continuous risk identification and advisory, there remains a need for clearer communication and a more direct connection between these activities and overall audit effectiveness. Strengthening this link could enhance the perceived value of remote audits and position the internal audit function as an indispensable partner in the organisation's risk management strategy.

The following section presents a set of recommendations aimed at addressing the key findings related to stakeholder perceptions. These recommendations are designed to enhance the credibility, visibility, and overall effectiveness of the internal audit function by improving how it is perceived by senior leadership, management, and other relevant stakeholders.

5.4.1.2 Recommendations for enhancing stakeholder perceptions of remote internal auditing

To strengthen the effectiveness and organisational acceptance of remote internal auditing, the following strategic recommendations are proposed:

Evaluate stakeholder preferences on audit formats

As internal audit functions continue to evolve in response to digital transformation, globalisation, and changing risk environments, it is increasingly important to adopt flexible and context-appropriate audit formats. Whether conducted on-site, remotely, or through a hybrid model, the effectiveness of an audit is significantly influenced by how well the chosen format aligns with stakeholder expectations, risk considerations, and operational realities.

To ensure the success and credibility of audits, organisations should conduct comprehensive evaluations of stakeholder preferences and contextual variables before deciding on the format of each audit engagement. This evaluative approach should be embedded into audit planning and risk assessment processes, enabling audit teams to deliver tailored engagements that are both effective and efficient.

Gathering input through stakeholder surveys, interviews, or post-audit feedback mechanisms can offer valuable insights into preferred engagement styles, perceived audit effectiveness, and suggestions for improvement. These insights can be used not only to tailor individual audits but also to shape broader internal audit strategies and communication practices.

Moreover, aligning audit formats with stakeholder preferences demonstrates responsiveness and adaptability – two qualities that strengthen relationships and reinforce the audit function's role as a collaborative partner in risk management and governance.

In conclusion, systematically evaluating stakeholder preferences and operational variables when selecting audit formats allows organisations to deliver high-impact, context-sensitive, and stakeholder-aligned audits. This not only enhances audit outcomes but also builds trust, reinforces relevance, and maximises the strategic value of the internal audit function.

Emphasise audit effectiveness to build stakeholder support

In today's complex and risk-sensitive business environment, the support of key stakeholders, such as management, the audit committee, CEOs, and CFOs, is crucial to the success and relevance of the internal audit function. One of the most powerful ways to cultivate this support is to demonstrate the effectiveness of audit activities, particularly in the context of remote auditing, where visibility and engagement can sometimes diminish due to the lack of physical presence.

A growing body of research, including the observed correlation between perceived audit effectiveness and stakeholder support ($\rho = 0,619$), underlines the importance of clearly communicating audit value to drive buy-in and collaboration (Freeman, 1984; Power, 2003). When stakeholders can see tangible results, such as risk mitigation, operational improvements, or compliance enhancements, they are more likely to trust the audit process, act on recommendations, and advocate for further investment in audit capabilities.

To achieve this, internal audit functions should implement structured and ongoing communication strategies that go beyond traditional reporting. These should be designed to make audit outcomes accessible, understandable, and actionable to a range of stakeholders. This focus on communicating effectiveness also contributes to the legitimacy of the audit function, as emphasised by Mihret and Yismaw (2007b). When stakeholders perceive audit as a partner in achieving organisational objectives, rather than just a compliance mechanism, they are more likely to cooperate during audits, allocate sufficient resources for implementation, and integrate audit insights into strategic decision-making.

Moreover, drawing from stakeholder theory (Freeman, 1984), internal audit must recognise and address the diverse interests and expectations of different stakeholder groups. Tailoring communication methods and content, whether technical detail for the audit committee, operational impact for department heads, or strategic risk themes for the executive team, ensures that messages resonate and drive appropriate responses.

Enhance stakeholder engagement in audit planning

The transition to remote auditing has redefined the traditional dynamics between auditors and stakeholders, underscoring the necessity of early, transparent, and sustained engagement. Recognising this shift, many forward-thinking organisations have adopted a more inclusive approach to audit planning, viewing stakeholders not as passive observers but as active contributors. Greater stakeholder involvement fosters trust, aligns expectations, and enhances the perceived relevance and ownership of the audit process. Collaborative planning helps align audit objectives with stakeholder priorities, thereby increasing the overall perceived value and impact (Arena *et al.*, 2006).

This journey begins with early involvement. Organisations have found success by integrating stakeholders into the audit process at its inception. Workshops, surveys, and advisory committees are employed not merely as consultative tools but as platforms for co-creation. These forums offer stakeholders a voice in shaping the audit's scope, priorities, and methodologies, fostering a sense of shared purpose and investment. Early engagement also helps bring risks and concerns to the surface that may otherwise be overlooked, enhancing the audit's overall relevance and effectiveness.

As the audit progresses, maintaining ongoing communication is critical. Regular briefings, interactive question and answer (Q&A) sessions, and clear, accessible documentation serve to keep stakeholders informed and aligned. Particularly in remote contexts, where physical cues and informal check-ins are absent, structured communication becomes a cornerstone of trust. Stakeholders benefit from demystifying the audit process, especially when it involves unfamiliar technologies and virtual procedures.

To bridge knowledge gaps and build confidence, many organisations implement structured stakeholder engagement programmes. These programmes typically feature training sessions that unpack the mechanics of remote auditing, awareness campaigns that highlight its strategic value, and participatory feedback channels that invite ongoing input. This proactive outreach not only improves understanding but also cultivates a collaborative audit culture, reinforcing that the process is a mutual endeavour rather than a unilateral assessment.

A crucial component of this strategy is to align audit objectives with broader organisational goals. When stakeholders see how audits contribute to strategic aims, such as compliance, operational excellence, or risk mitigation, they are more likely to support and actively participate in the process. Visibility of purpose transforms the audit from a perceived obligation into a strategic opportunity.

Finally, successful engagement hinges on clarity of roles, responsibilities, and timelines. By delineating these elements at the outset, organisations promote shared ownership and accountability.

Everyone understands their part in the process, reducing confusion and enhancing coordination across departments and functions.

In summary, stakeholder engagement in remote auditing is not a peripheral activity, it is a strategic imperative. Through early involvement, consistent communication, structured education, clear goal alignment, and well-defined responsibilities, organisations can ensure that their remote audit processes are not only effective but also inclusive and transparent.

These measures can help reduce uncertainty and build stakeholder trust, especially concerning the effectiveness and value of remote audits. Consistent with stakeholder theory, aligning audit practices with stakeholder expectations is critical to maintaining organisational legitimacy (Freeman, 1984). Greater involvement fosters ownership, aligns expectations, and enhances the perceived relevance and impact of audit activities (Arena *et al.*, 2006).

Adopt a hybrid audit model

Given that 48,3% of stakeholders expressed mixed views regarding the effectiveness of remote audits compared to traditional on-site methods, adopting a hybrid audit model emerges as a practical and balanced solution. This model strategically combines the convenience and efficiency of remote auditing with the depth and interpersonal advantages of on-site engagement. By integrating both formats, organisations can tailor audit delivery to the specific demands of each engagement – maximising resource use while maintaining audit quality and stakeholder confidence (IFAC, 2021).

The hybrid approach is particularly valuable in high-risk or complex audit areas, where the nuanced insights gained from in-person interaction, physical walkthroughs, or direct observation are critical. Conversely, lower-risk tasks such as document reviews, routine updates, and follow-up actions can be handled efficiently through remote means, supported by modern audit software and communication platforms.

To ensure the model's effectiveness, flexibility must be built into the planning process. Audit teams should assess each task or phase individually, allocating responsibilities based on factors such as the nature of the controls being tested, the need for physical verification, and stakeholder preferences. For example, on-site presence may be most beneficial during initial planning discussions, final reporting presentations, or when conducting inspections of physical assets or manual processes. Remote methods, on the other hand, are well suited for preliminary assessments, data analytics, and ongoing communication.

By adopting this strategic blend of remote and on-site auditing, organisations can enhance the completeness, accuracy, and relevance of audit outcomes, delivering insights that are not only timely

and cost-effective but also trusted and actionable. Moreover, the hybrid model supports greater audit agility, allowing internal audit functions to adapt seamlessly to changing operational environments or external disruptions.

Increase use of real-time analytics and dashboards

In an era defined by rapid digital transformation and evolving business risks, the remote internal audit function is undergoing a pivotal shift. No longer confined to retrospective assessments, internal audit is increasingly expected to play a proactive and strategic role, anticipating risks, advising leadership, and driving value across the enterprise. This evolution hinges on the function's ability to embrace advanced technologies and align more closely with organisational strategy.

To meet these expectations, leading remote internal audit teams are expanding their technological capabilities. Tools such as real-time analytics, dynamic risk dashboards, and automated testing routines are becoming essential components of a modern audit toolkit. These technologies enable auditors to monitor controls and risks continuously rather than periodically, offering management timely insights into emerging threats and compliance issues. By automating repetitive tasks and integrating data streams, auditors can reallocate their time to higher-value activities such as risk forecasting and strategic consulting.

This transformation is underpinned by a growing recognition of remote internal audit's value as a risk advisory function. In the recent survey, stakeholders rated internal audit's role in risk advisory at a mean of 4,03 on a five-point scale, reflecting strong confidence in its contribution to risk oversight. Building on this positive perception, the use of advanced technologies can further elevate internal audit's position as a strategic partner, bridging the gap between assurance and advisory.

As outlined by The IIA (2022), there is a rising expectation for internal audit to evolve beyond its traditional control role and assume a more forward-looking posture. Enhancing risk intelligence through technology not only meets this demand but also supports more informed decision-making across the enterprise. Advanced tools enable internal auditors to detect patterns, identify anomalies, and simulate potential risk scenarios, thereby helping leadership stay ahead of uncertainty.

Moreover, these digital innovations amplify the strategic value of remote internal audit, particularly in its advisory and decision-support capacities. The ability to deliver insights in real-time, backed by data-driven evidence, reinforces audit's relevance at the executive table. This shift not only aligns with broader trends in governance and risk management but also positions internal audit as a catalyst for continuous improvement and organisational resilience.

In summary, the integration of technology into remote internal audit is not just a tactical upgrade, it is a strategic imperative. As internal audit continues to evolve, its effectiveness and influence will increasingly depend on how well it leverages digital tools to deliver timely, actionable insights and support enterprise-wide decision-making.

Conduct routine effectiveness assessments

Organisations should implement routine, structured assessments of internal audit effectiveness and stakeholder satisfaction using targeted surveys and performance evaluations grounded in clearly defined key performance indicators (KPIs). These assessments serve as a critical feedback mechanism, enabling audit functions to identify emerging concerns, address potential misalignments, and proactively adapt to evolving stakeholder expectations. Regular evaluations also help close perception gaps between what stakeholders expect from internal audits and what is actually delivered, which is vital for maintaining trust and demonstrating value.

Such assessments should go beyond general satisfaction metrics to include indicators related to audit timeliness, communication quality, relevance of recommendations, and the perceived impact of audit findings on business performance and risk management. By embedding these performance reviews into the audit life cycle, organisations can create a culture of accountability and responsiveness within the audit function.

Ongoing monitoring not only supports continuous improvement but also reinforces the strategic relevance of internal audit within the broader governance, risk, and compliance framework. As noted by Mihret and Yismaw (2007a), aligning internal audit activities with stakeholder expectations is fundamental to enhancing perceived value. Systematic performance tracking, when combined with actionable stakeholder feedback, allows audit teams to fine-tune their approach, focus resources where they are most needed, and better position themselves as trusted advisors in the organisation.

In essence, regular, data-driven assessments help ensure that the internal audit function remains dynamic, value-adding, and closely aligned with the organisation's strategic priorities and stakeholder needs.

Enhance IT infrastructure and digital audit capabilities

Investing in secure, user-friendly digital platforms and providing continuous training for both auditors and auditees is essential to the success of remote auditing. Mixed stakeholder views regarding the effectiveness of IT tools reveal inconsistencies in digital readiness across organisations. These disparities suggest that while some users are comfortable with remote audit technologies, others may

experience significant challenges, often due to unfamiliarity with the tools or a lack of sufficient support. This variation can undermine audit efficiency and stakeholder confidence.

To address this, organisations must prioritise enhanced digital engagement and support mechanisms. Targeted training sessions tailored to the specific needs of auditors and auditees can build competency, reduce resistance to digital platforms, and mitigate frustration associated with remote tools. In addition, providing on-demand technical support, user guides, and regular system updates can further improve the user experience and ensure a smoother audit process.

Bridging these gaps is critical to the perceived success of remote audits (Bierstaker *et al.*, 2014). Addressing the high variability in stakeholder perceptions of IT ($SD = 1,122$) can lead to more consistent audit delivery and improved stakeholder satisfaction. A robust and accessible digital infrastructure is essential for minimising disparities and strengthening the reliability of remote audit processes (Alles, 2015).

Furthermore, a well-supported digital audit environment contributes to greater consistency, transparency, and satisfaction among stakeholders. As Alles (2015) emphasises, robust IT systems form the backbone of modern audit processes, particularly in remote or hybrid models. Therefore, by investing in technology and people simultaneously, organisations can strengthen the reliability of remote audits, minimise technological barriers, and reinforce the strategic role of internal audit in a digitally evolving landscape.

Increase stakeholder involvement in planning and execution

Actively engage stakeholders during the audit scoping and scheduling phases to ensure the audit process is inclusive, transparent, and strategically aligned. Early and meaningful involvement of key stakeholders helps build mutual trust, align expectations, and reinforce the audit's relevance within the organisation. When stakeholders contribute to defining the audit's scope and timing, they are more likely to view the process as valuable and legitimate, increasing their sense of ownership and commitment (Arena *et al.*, 2006).

Establish clear roles, responsibilities, and timelines at the outset to foster shared accountability and minimise ambiguity. This structured approach not only supports smooth execution but also encourages active participation from all parties involved.

Incorporate stakeholder feedback into the audit's design and implementation using structured mechanisms such as surveys, facilitated workshops, cross-functional steering committees, and post-audit debrief sessions. These engagement channels allow stakeholders to voice concerns, highlight risks, and suggest areas of focus, which can then be integrated into the audit plan. Such a

collaborative approach ensures that audit objectives reflect organisational priorities and strengthens the overall impact and perceived value of the audit function.

Improve IT readiness and user support

To ensure the continued success and effectiveness of remote audits, it is critical to invest in robust digital infrastructure, comprehensive training programmes, and cross-functional support systems. These investments will enhance the security, consistency, and user-friendliness of remote audit processes, ensuring that they meet the evolving needs of both audit teams and stakeholders.

While IT challenges were not strongly correlated with stakeholder perceptions of remote auditing in this study, prior research underscores the profound impact that technical barriers can have on the credibility and effectiveness of remote audits. Bierstaker *et al.* (2014) argue that technological issues, ranging from connectivity problems to concerns about cybersecurity, can significantly undermine the perceived reliability and accuracy of remote audit outcomes. If stakeholders perceive that technology compromises the integrity of the audit process, their trust in remote audits may diminish, regardless of the actual effectiveness of the audit itself.

To mitigate these risks and improve stakeholder engagement, enhancing IT readiness is a crucial step. This includes ensuring that the digital infrastructure supporting remote audits is not only secure but also scalable and adaptable to various audit scenarios. Security protocols must be rigorously tested and updated regularly to protect sensitive data, ensuring compliance with relevant regulations and fostering trust among stakeholders. Additionally, the infrastructure should be designed to support seamless communication and data sharing between audit teams and other key stakeholders, thereby minimising disruptions or inefficiencies during the audit process.

Equally important is the provision of comprehensive training for both audit professionals and stakeholders. Effective training programmes can significantly enhance user confidence, enabling auditors to maximise the potential of digital tools and stakeholders to better understand and engage with remote audit findings. This training should cover both the technical aspects of the audit tools and broader issues such as data privacy, cybersecurity measures, and the strategic value of remote auditing. When audit teams and stakeholders are well versed in the technology, they are more likely to see it as a facilitator rather than a barrier to effective audit practices.

In summary, while the study did not find strong correlations between IT challenges and stakeholder perceptions of remote auditing, it is clear that addressing technical barriers is essential for improving the overall effectiveness and acceptance of remote audits. Investments in IT infrastructure, training, and cross-functional support will enhance the consistency, security, and usability of remote audits, thereby strengthening stakeholder confidence and fostering greater engagement with the audit

process. As organisations increasingly adopt remote auditing, these investments will be pivotal in ensuring that audits not only meet but exceed stakeholder expectations, thus reinforcing the value and legitimacy of the audit function.

Implement feedback and monitoring mechanisms

Internal audit functions should establish formal, recurring mechanisms for collecting feedback and assessing the effectiveness of their communication practices. Clear, timely, and impactful communication is a cornerstone of audit effectiveness, especially in remote or hybrid environments where personal interaction may be limited. To ensure that communication remains aligned with stakeholder expectations, audit teams should implement structured tools such as post-audit surveys, debriefing sessions, and follow-up meetings. These tools not only offer valuable insights into the audit experience but also help identify gaps in understanding, presentation clarity, and the perceived usefulness of audit findings.

Regular feedback, particularly from management and key stakeholders, is essential for evaluating how well audit messages are conveyed, especially in remote audit settings, where misinterpretations can easily arise. Stakeholder input regarding the clarity, relevance, and actionability of audit reports can directly inform improvements to reporting formats, communication tools, and overall engagement strategies. Over time, these refinements contribute to greater transparency, more informed decision-making, and stronger relationships between the audit function and its stakeholders.

Equally important is the need for audit teams to demonstrate responsiveness to the feedback they receive. Communicating how suggestions have been addressed or incorporated into future practices fosters trust and shows that the audit function values stakeholder perspectives. This visible commitment to improvement not only enhances the credibility of internal audit but also reinforces its strategic role within the organisation.

Ultimately, creating a consistent and structured feedback loop promotes a culture of continuous improvement and stakeholder-centred auditing. By systematically capturing and responding to stakeholder insights, internal audit functions can evolve their methodologies, strengthen engagement, and ensure that audit communications remain clear, relevant, and impactful in an ever-changing business environment.

Enhance stakeholder communication and transparency

Most respondents affirmed that audit timelines, scope, and objectives were communicated effectively prior to the commencement of remote audits. To further enhance this, internal auditors should ensure that pre-audit communication is not only clear but also interactive. Engaging stakeholders early,

through virtual meetings or workshops, can help clarify any ambiguities and align expectations from the outset.

Throughout the audit process, stakeholders should receive regular updates, briefings, and clearly documented procedures. Educating them on the standards, tools, and benefits of remote audits will help build trust, improve engagement, and encourage active participation. Additionally, audit teams should clearly demonstrate how remote audits comply with professional standards and provide evidence of quality assurance mechanisms, particularly when reporting to regulators and external partners.

By implementing these recommendations, organisations can strengthen stakeholder confidence and align their internal audit practices with stakeholder expectations, drive audit innovation, and optimise the internal audit function for a digital future, enhance audit effectiveness, and improve overall audit quality. The shift toward remote and hybrid auditing models presents valuable opportunities for increased efficiency and flexibility, while traditional face-to-face methods remain essential in specific contexts. Striking the right balance between these approaches will be key to meeting the evolving demands of modern internal auditing.

5.4.1.3 Conclusion on stakeholder perception

The findings from the analysis indicate that stakeholders generally perceive remote internal auditing as effective, valuable, and supportive of organisational goals, particularly in delivering timely assurance, contributing to risk identification and mitigation, and adding overall value. The majority of respondents highlighted benefits such as improved efficiency, real-time collaboration, and stronger decision-making support, positioning remote auditing as a viable long-term approach. However, mixed views on its comparative effectiveness to on-site auditing, coupled with concerns about technological consistency, point to the need for a hybrid, adaptable model underpinned by clear communication, digital capability, and continuous stakeholder engagement. The strength of stakeholder support appears closely linked to perceptions of audit effectiveness, underscoring the importance of demonstrating impact, building trust, and aligning audit practices with stakeholder expectations in an evolving digital environment.

These findings reinforce that the legitimacy of remote internal auditing is not solely a technical matter but also a perceptual one shaped by stakeholder trust, effective communication, and the visible delivery of outcomes. Strategic alignment with stakeholder expectations is, therefore, essential.

The next section highlights the primary insights into management support, identified as the second determinant of internal audit effectiveness.

5.4.2 Section B: Management support in remote internal auditing

Management support is a crucial foundation for the effectiveness of internal auditing, particularly in remote environments where digital coordination and collaboration are essential. The literature widely recognises it as a key factor in ensuring effective internal audits, especially in remote settings (Alzeban & Gwilliam, 2014). In traditional audits, management plays a key role in facilitating access, aligning audit objectives with strategic priorities, and responding to audit findings. These responsibilities are equally, if not more, important in remote settings, where the absence of a physical presence places greater reliance on proactive digital engagement and organisational alignment.

The next section explores the findings related to management support, recognised as the second key determinant of internal audit effectiveness. By examining the perceptions of internal auditors and chief audit executives, the analysis sheds light on the extent to which management engagement either facilitates or hinders the internal audit function in fulfilling its mandate.

5.4.2.1 Key findings on management support

This section highlights the primary insights into management support, identified as the second determinant of internal audit effectiveness.

Submission of digital evidence

The study found that a slight majority of respondents (53,6%) agreed that management provides sufficient and reliable digital evidence in a timely manner during remote audit engagements. This finding suggests that, in general, there is a functional level of collaboration and support from management in facilitating remote audit processes. The timely provision of relevant and accurate digital documentation is crucial in remote settings, as it enables auditors to perform thorough analyses, draw reliable conclusions, and complete audit work within defined timelines. In doing so, it helps minimise the risk of audit scope limitations, which are often associated with delays or gaps in evidence availability.

However, a significant proportion of respondents (35,7%) expressed neutrality on this issue, indicating possible inconsistencies in evidence-handling practices or a lack of transparency in how evidence is shared across different departments or audit engagements. This neutrality may reflect variability in digital maturity, departmental responsiveness, or understanding of audit requirements. Such inconsistency poses a risk to audit effectiveness, as delays or deficiencies in evidence provision can hinder the auditor's ability to validate controls, test transactions, or support findings with sufficient audit evidence.

The importance of this issue is further underscored by a statistically significant and moderately strong positive correlation between the timely submission of digital evidence and the prompt implementation of audit recommendations ($\rho = 0,586$, $p < 0,01$). This finding suggests that when management provides audit evidence in a timely and reliable manner, they are also more likely to respond promptly to audit findings and implement necessary improvements. This supports the assertion by The IIA (2023) that strong audit management collaboration, particularly in the digital exchange of information, is a foundational element of effective audit execution and impact.

Collectively, these findings highlight the need for organisations to standardise digital evidence submission protocols and enhance communication between audit and operational teams. Establishing clear expectations, utilising secure digital platforms, and providing training on audit readiness can help ensure consistency and reliability in audit support. Doing so would contribute significantly to improving the efficiency, quality, and overall success of remote internal audit functions.

Support and encouragement for internal audit unit

The study revealed that 53,6% of respondents disagreed with the statement that management does not support or encourage the internal audit function during remote audits. This indicates a generally positive perception of management's support for internal auditing activities, particularly in remote environments. This finding suggests that, overall, auditors feel that management is cooperative, accessible, and engaged during remote audit processes, demonstrating a willingness to participate in online discussions, provide necessary documentation, and contribute to audit planning and execution.

However, a considerable proportion of respondents (35,7%) expressed neutrality, indicating a level of uncertainty or ambivalence about the consistency of management support. This significant neutral response may reflect a lack of visibility into management's actions, inconsistencies in support across departments, or varying experiences depending on the audit engagement or managerial attitudes. Such variation points to an uneven audit environment in which some teams benefit from strong management collaboration, while others may encounter indifference or limited engagement.

This inconsistency aligns with prior research by Alzeban and Gwilliam (2014), who found that the effectiveness of internal audit functions is closely linked to the degree of support received from senior and departmental management. In particular, they highlight that management's active involvement is essential for legitimising the audit function, ensuring timely access to information, and fostering a culture of accountability. When such support is inconsistent, it may compromise the audit team's ability to operate effectively and may lead to delays in issue resolution, implementation of recommendations, or access to key personnel.

Thus, while the overall perception leans toward positive support, the data underscores the need for more standardised, organisation-wide practices to ensure consistent management engagement with internal audits, especially in remote settings where informal collaboration and visibility may be limited. Enhancing communication strategies, clarifying roles and expectations during audits, and reinforcing a top-down culture of audit support can help mitigate these variations and strengthen the perceived and actual support for internal audit activities across the organisation.

Attention from top management

The data revealed that 67,9% of respondents agreed that internal audit units receive sufficient attention from top management, particularly in relation to the issues and recommendations raised during audit engagements. This strong level of agreement suggests that internal audit functions are not only recognised but also taken seriously by organisational leadership. Such attention is essential in reinforcing the authority and credibility of the internal audit unit, and in ensuring that audit findings are addressed in a timely and effective manner.

This finding aligns with and supports previous research, particularly the work of Alzeban and Gwilliam (2014), which emphasises the critical role of top management support in enhancing internal audit effectiveness. According to their study, when senior executives actively engage with internal audit outputs by reviewing reports, endorsing recommendations, and following up on implementation, they create a culture that values internal control, risk management, and accountability. This engagement strengthens the perceived independence of the audit function and empowers auditors to pursue their duties with greater confidence and access to resources.

Moreover, sustained attention from top management is particularly crucial in remote audit contexts, where face-to-face visibility and informal influence may be reduced. In such settings, formal support from leadership becomes an even more important driver of audit legitimacy and follow-through. It ensures that audit teams are not sidelined due to physical distance or digital communication barriers and that their work continues to contribute meaningfully to organisational governance.

However, while the majority of responses indicate strong support, the remaining 32,1%, those who were neutral or disagreed, suggest that this level of attention may not be uniformly experienced across all departments or audit engagements. This variance highlights the need for consistent leadership engagement and organisation-wide reinforcement of the audit function's strategic importance.

Overall, the findings underscore that top management's attention to audit issues is a foundational element of internal audit effectiveness. Continued efforts to institutionalise this support, through clear communication channels, regular executive-level reviews of audit findings, and visible endorsement of audit recommendations, will further enhance the value and impact of the internal audit function.

Availability for online meetings

The study found that a substantial majority of respondents (71,5%) agreed or strongly agreed that management and staff are easily accessible for online meetings during remote audits. This result reflects positively on the organisation's digital communication infrastructure and the general responsiveness of key stakeholders to audit-related engagements. In a remote audit environment, where face-to-face interactions are replaced by virtual platforms, the ease of access to management and operational staff is a critical enabler of audit effectiveness.

This high level of accessibility suggests that the organisation has successfully adopted and integrated digital communication tools, such as video conferencing platforms, instant messaging applications, and collaborative document-sharing systems, into its audit processes. Moreover, it indicates a willingness among stakeholders to participate actively in the audit process, contributing to timely responses, clarification of issues, and cooperative problem-solving. These factors help mitigate the typical challenges associated with remote auditing, such as communication delays, reduced visibility, and difficulty in scheduling discussions.

Effective and prompt communication not only facilitates the smooth flow of the audit but also enhances the quality of audit evidence collection, the credibility of findings, and the relevance of recommendations. When management and staff are accessible and responsive, auditors are better able to verify information, gain insights into processes, and resolve discrepancies efficiently. This accessibility, therefore, supports greater audit depth, reduces procedural bottlenecks, and promotes stakeholder engagement, all of which are essential components of a robust internal audit function.

However, while the overall finding is encouraging, it remains important to ensure that this accessibility is maintained consistently across departments and not limited to specific individuals or teams. Organisations should continue investing in communication training, digital literacy, and user-friendly virtual collaboration platforms to ensure equitable and sustained engagement in all remote audit engagements.

Ultimately, the ability of management and staff to be readily available for online interactions reflects both technological readiness and a supportive organisational culture, two pillars that are fundamental to the long-term success of remote internal auditing.

Participation in audit planning

The data revealed that 78,8% of respondents indicated that their departments actively participate in the remote preparation of both the annual internal audit plan and the three-year rolling plan. This high level of involvement suggests strong engagement and cooperation between the internal audit function

and departmental leadership, reflecting a healthy degree of strategic alignment and cross-functional collaboration within the organisation.

Active departmental participation in audit planning is a critical component of an effective internal audit framework, particularly in remote environments where physical interactions are limited. It ensures that audit priorities are informed by those with operational knowledge and firsthand understanding of emerging risks, process changes, and strategic objectives. This collaborative approach contributes to the development of risk-based audit plans that are not only comprehensive but also aligned with the organisation's evolving risk profile and business needs.

Furthermore, such involvement enhances the relevance and acceptance of the audit plan, as departments are more likely to support and cooperate with audit activities that they helped to shape. It also promotes a sense of shared ownership and accountability in addressing internal control and risk management issues, which can ultimately lead to the more effective implementation of audit recommendations.

In the context of remote auditing, where coordination and communication can be more challenging, this level of planning participation indicates that the organisation has adapted well by leveraging virtual platforms to maintain engagement. It also reflects a maturing audit culture in which internal audit is viewed not just as a compliance function, but as a strategic partner in governance, risk, and control.

Nevertheless, maintaining this level of engagement requires ongoing effort. Audit teams must continue to facilitate inclusive and transparent planning processes, ensure that all departments are adequately represented, and provide guidance on articulating risk areas and priorities. This will help sustain the quality and relevance of audit planning in both remote and hybrid work environments.

Overall, the finding highlights the importance of collaborative audit planning in enhancing audit effectiveness and ensuring that audit resources are directed toward the most critical areas of organisational risk.

Top management's attention is positively perceived

The data indicates that top management's attention to internal audit issues was positively perceived by the majority of respondents, with 67,9% agreeing that top management actively engages with and prioritises the concerns raised by the internal audit function. The mean score of 3,46, while slightly above neutral, suggests a generally favourable view of leadership's involvement in the audit process, yet leaves room for further improvement in terms of consistent and visible engagement. This level of perceived attention from top management is crucial for reinforcing the credibility and authority of the

internal audit function, ensuring that audit findings and recommendations receive the consideration they warrant.

This finding is particularly significant because it supports the critical role of top management in shaping the effectiveness of internal audit practices. As emphasised in prior research by Alzeban and Gwilliam (2014), top management's engagement with the internal audit function is a key driver of audit success. Their involvement in addressing audit findings, allocating resources for audits, and supporting implementation of audit recommendations not only enhances the audit process itself but also contributes to a broader organisational culture of accountability and governance. Top management's demonstrated attention signals the importance of audit outcomes, encouraging departments and staff to prioritise compliance and risk management.

Furthermore, this perception of strong leadership attention is corroborated by the data showing a robust positive correlation between top management's engagement and other factors such as the availability of management for meetings ($\rho = 0,737$, $p < 0,01$). This strong correlation suggests a positive ripple effect: when leadership pays attention to audit issues, it not only influences the audit process directly but also fosters greater accessibility and communication between audit teams and management. This improved availability for meetings and collaboration creates a conducive environment for resolving audit concerns, enhancing information exchange, and ensuring that audit recommendations are swiftly acted upon.

While the perception of top management's attention is generally positive, the correlation data indicates that there is still some room for improvement in terms of making this engagement even more consistent across departments or audit cycles. It is important for organisations to continue nurturing and reinforcing top management's commitment to internal auditing, ensuring that their support is not only visible but also operationalised through regular reviews, meetings, and follow-up on audit outcomes.

In summary, the positive perception of top management's attention to internal audit issues represents a strength within the organisation that can be further leveraged. By deepening their involvement and ensuring consistent engagement across all levels of the audit process, top management can significantly enhance the effectiveness of internal audits and further embed audit findings into the organisational decision-making framework.

Correlations highlight interdependencies

The Spearman correlation analysis conducted in this study reveals several strong relationships between key factors related to management engagement, which are essential for the effective execution of remote internal audits. Two particularly notable correlations emphasise the

interdependencies between different elements of management support and their collective impact on audit outcomes.

First, a robust correlation was observed between management availability and top management attention ($\rho = 0,737^{**}$, $p < 0,01$). This strong relationship indicates that when management is readily available for online meetings, discussions, and collaboration, it is often accompanied by greater attention and engagement from top management. In other words, top management's active involvement and focus on audit issues are likely to encourage and facilitate greater accessibility at all organisational levels. This is crucial for the smooth execution of remote audits, as accessible management enables auditors to quickly resolve queries, clarify ambiguities, and gain deeper insights into operations and processes. The correlation also suggests that when top management prioritises internal audits, it fosters a culture of openness and responsiveness that trickles down throughout the organisation, improving overall audit effectiveness.

Second, the analysis revealed a significant correlation between the provision of digital evidence and the implementation of audit findings ($\rho = 0,586^{**}$, $p < 0,01$). This finding highlights the critical role that timely and reliable evidence provision plays in driving the success of audit recommendations. When management promptly provides the necessary digital evidence, it facilitates a more thorough and efficient audit process, enabling auditors to make informed conclusions and identify risks or weaknesses within operations. Furthermore, the timely submission of evidence is strongly associated with the swift implementation of audit recommendations. This relationship underscores that effective internal audits are not only about identifying issues but also about ensuring that those issues are addressed and acted upon. In this regard, the speed and quality of evidence provision directly influence the organisation's ability to follow through on audit recommendations, ultimately enhancing overall governance and risk management processes.

Together, these correlations underscore the interconnectedness of operational and strategic management engagement. The accessibility and involvement of management, coupled with their commitment to providing necessary evidence, form a critical foundation for ensuring audit effectiveness. Strong management engagement, both at the operational level (availability for meetings) and strategic level (attention to audit findings), creates a feedback loop that drives improvements in the audit process, supports timely issue resolution, and facilitates the effective implementation of audit recommendations.

These findings also suggest that organisations should focus on strengthening these interdependent relationships to maximise the value of their internal audit function. For instance, organisations could implement strategies to enhance management's availability and responsiveness, such as through targeted training, clear communication protocols, and the use of collaborative digital platforms.

Additionally, ensuring that digital evidence is provided consistently and reliably would improve not only the audit process itself but also the likelihood of taking timely action on audit findings.

Overall, these correlations highlight the essential role of both operational and strategic management engagement as key drivers of audit effectiveness. Ensuring that these areas are prioritised and strengthened will likely lead to more successful audits, better risk mitigation, and more efficient implementation of audit recommendations.

Implementation of audit findings

The data reveals that only half of the respondents (50%) agreed that management promptly implements actions in response to identified control weaknesses. In contrast, a significant proportion of respondents (42,9%) expressed neutrality on this matter, suggesting uncertainty or lack of clarity regarding the implementation process. This split in responses points to potential issues in both the timeliness and communication of corrective actions across the organisation.

The finding indicates that while there is general agreement that management acknowledges the audit findings, there may be inconsistency or delay in translating these findings into actionable changes. This hesitation may stem from a variety of factors, such as resource constraints, competing priorities, or a lack of effective tracking and oversight mechanisms. Moreover, the neutral responses suggest that even when actions are taken, their progress or impact might not be clearly communicated or visible to those outside of the immediate decision-making circle. This can create uncertainty about whether the corrective actions are being fully implemented and whether they are achieving the desired improvements.

Such delays or communication gaps can significantly undermine the effectiveness of the internal audit function. If management does not swiftly and transparently address control weaknesses, the organisation may continue to face elevated risks, inefficiencies, or vulnerabilities, which could have been mitigated through prompt and decisive action. Additionally, slow or poor communication regarding the implementation of audit findings may erode trust in the audit process itself, as stakeholders may perceive that the audit recommendations are not being taken seriously or acted upon in a timely manner.

The finding also suggests that while some departments or teams may be quick to implement corrective actions, others may be less responsive, reflecting inconsistencies in how audit findings are handled across different levels or areas of the organisation. This variability in response time can lead to frustration among auditors and other stakeholders, and it may reduce the overall effectiveness of the internal audit function in driving meaningful change.

To effectively address the challenges associated with the implementation of audit findings and to enhance the overall quality and consistency of management support for internal audits, a range of recommendations are proposed in the next section. These recommendations aim not only to improve the timeliness and transparency of management actions but also to ensure that management fully embraces the value and significance of the internal audit function in strengthening organisational controls and governance.

5.4.2.2 Recommendations to improve effectiveness of management support

Based on the findings, several recommendations are proposed to strengthen management's role in supporting effective remote auditing:

Standardise protocols for digital evidence submission

A critical recommendation for enhancing the effectiveness and efficiency of remote auditing is the establishment of clear, standardised operating procedures (SOPs) for the submission of digital evidence. As organisations increasingly embrace remote audit practices, the timely, secure, and systematic submission of digital evidence becomes central to ensuring that audit processes are not only efficient but also consistent and reliable. Implementing standardised protocols ensures that audit teams can access the necessary documentation without delay, minimising disruptions and maintaining the integrity of the audit process.

The adoption of audit management software and automation tools can significantly enhance this process. These tools can streamline the submission of documents, ensuring that the required files are uploaded promptly and securely. Automation systems can facilitate the tracking and verification of evidence submission, providing an added layer of accountability and transparency. As noted by The IIA (2023), the use of such technologies ensures that audit processes are not only faster but also more reliable, reducing human error and mitigating the risks associated with manual submissions. By automating routine tasks, audit teams can focus more on analysis and decision-making, rather than administrative tasks.

The implementation of consistent and standardised procedures for digital evidence submission can mitigate the risks of delays, which are often a significant challenge in remote auditing. In many organisations, audit evidence may be gathered from various departments or locations, and discrepancies in how evidence is submitted can lead to inconsistencies, delays, and confusion. By establishing clear guidelines, such as standardised formats, deadlines, and security protocols, organisations can reduce delays and ensure that the audit scope remains consistent and comprehensive across departments. This is especially important when audits span multiple units or geographies, where variations in procedures could lead to gaps in evidence collection or evaluation.

Standardisation enhances the ability to compare and aggregate evidence across different audits and departments, improving the overall quality of the audit process. Alzeban and Gwilliam (2014) highlight that by ensuring consistency in audit procedures, organisations can enhance the overall transparency and reliability of the audit function, which in turn improves its perceived value and effectiveness. When evidence submission protocols are standardised, stakeholders can have greater confidence that audits are conducted uniformly, leading to more accurate findings and better-informed decision-making.

In addition to reducing delays and improving consistency, the standardisation of evidence submission procedures can enhance security. Remote audits inherently carry increased risks related to data security, particularly when sensitive or confidential information is being transferred across digital platforms. By establishing robust, standardised protocols, such as secure file transfer mechanisms, encryption, and access controls, organisations can ensure that digital evidence remains protected from unauthorised access, thus upholding the integrity of the audit process.

Moreover, clear SOPs for digital evidence submission can improve communication between audit teams and other departments. Auditors and department heads will have a shared understanding of the evidence requirements, deadlines, and submission formats. This transparency helps prevent misunderstandings and ensures that audit teams receive the complete, accurate, and timely evidence necessary for conducting thorough audits.

In summary, the establishment of standardised protocols for digital evidence submission is a key strategy for optimising remote audit practices. By leveraging automation and audit management software, organisations can streamline the evidence submission process, reduce delays, ensure consistency across departments, and enhance data security. Standardised procedures will not only improve the efficiency of the audit process but also bolster stakeholder confidence in the audit function by ensuring that audits are performed in a transparent, reliable, and secure manner. As remote auditing becomes more prevalent, this recommendation is vital for ensuring the sustainability and effectiveness of audit activities in increasingly digital environments.

Enhance management visibility and encouragement

The effectiveness of internal audit extends beyond technical proficiency; it is shaped by the tone at the top. When senior leadership visibly supports audit initiatives, it signals that internal audit is not just a compliance function, but a strategic tool for governance and long-term sustainability.

Clear endorsement and active participation from executives enhance morale and elevate the audit's perceived value. Staff are more likely to engage positively when they see leadership attending planning meetings, reviewing progress reports, and making themselves available for audit-related

discussions. This visibility promotes collaboration, expedites evidence submission, and aligns audit planning with real-time strategic priorities.

Promoting top-down accountability embeds audit outcomes into decision-making. When leaders consistently follow up on findings and integrate audit discussions into executive meetings, they reinforce the importance of audit at all levels. As Alzeban and Gwilliam (2014) found, management attention to internal audit strongly correlates with cooperation during audits and implementation of recommendations.

Embedding audit updates into leadership agendas and tracking follow-ups are simple yet powerful steps. These practices keep internal audit visible at the highest levels, enabling it to function as both an assurance provider and strategic advisor.

Ultimately, the more leadership invests in supporting internal audit through actions, presence, and follow-through, the more empowered the function becomes to drive meaningful change and foster a culture of internal accountability.

Formalise planning involvement

Enhance departmental engagement in audit planning by introducing formal consultation processes and interactive workshops. This approach fosters greater ownership and ensures the audit plan is closely aligned with organisational priorities. Involving key stakeholders from various departments early in the planning phase allows for a broader range of perspectives and promotes audits that are both relevant and comprehensive. Given that participation in audit planning has been rated highly, it should be reinforced and institutionalised as a best practice.

Establish a follow-up mechanism for audit findings

One of the recurring concerns expressed by stakeholders in this study was their neutral stance regarding the implementation of audit findings. While audits may identify critical issues, the effectiveness of the audit process is ultimately contingent on the timely and effective implementation of corrective actions. To address this gap, it is essential for organisations to establish a formal follow-up mechanism that tracks the progress of audit findings and ensures accountability throughout the corrective action process.

A structured tracking and reporting system is a key element in facilitating the follow-up process. Such a system would allow audit teams and relevant stakeholders to monitor the status of corrective actions in real time, providing updates on deadlines, responsibilities, and outcomes. This would help ensure that identified issues are not only addressed but also revisited and evaluated for their resolution.

Implementing such a system could be supported by audit management software, which would allow for the seamless recording of findings, assignment of tasks, and tracking of progress.

The follow-up mechanism should include regular reporting cycles to provide transparency and clear visibility into the progress of corrective actions. Regular updates, whether in the form of weekly or monthly reports, would allow stakeholders to see where the organisation stands on the implementation of audit recommendations and whether corrective actions are being taken within the prescribed timelines. This would also create a feedback loop where stakeholders can raise concerns about delays or inefficiencies in addressing audit findings, fostering ongoing communication between the audit function and the wider organisation.

The importance of such a follow-up mechanism cannot be overstated, as it plays a critical role in ensuring accountability. Without regular follow-ups, there is a risk that audit findings may be forgotten or deprioritised over time, especially in larger organisations where multiple issues are being addressed simultaneously. A formal system ensures that audit findings are treated with the urgency and importance they deserve and that corrective actions are not only assigned but also completed in a timely manner.

Furthermore, a follow-up mechanism that includes clear accountability structures will increase the likelihood of successful implementation. By assigning specific individuals or teams to be responsible for each corrective action, organisations create a clear chain of responsibility. This not only motivates action but also allows for more effective monitoring and follow-through. Regular reviews of the progress toward implementing corrective actions would ensure that any delays or obstacles are promptly addressed and that accountability is maintained across all levels of the organisation.

In addition to improving the implementation process, such a system will help build stakeholder trust and confidence in the audit process. Transparency about the progress of corrective actions reinforces the idea that the audit function is not merely a compliance or oversight activity but is an active and strategic partner in improving organisational performance. When stakeholders see that audit findings lead to tangible improvements and that there is a mechanism in place to track progress, they are more likely to support the audit function and view it as a valuable tool for organisational development.

In conclusion, establishing a formal follow-up mechanism for audit findings is crucial for ensuring that identified issues are addressed in a timely and effective manner. By implementing a structured tracking and reporting system, organisations can enhance transparency, accountability, and stakeholder confidence in the audit process. A clear follow-up system, backed by regular reporting and well-defined accountability, will ensure that audit recommendations translate into meaningful improvements and that corrective actions are executed efficiently. This will ultimately contribute to the

ongoing effectiveness of the internal audit function and its role in organisational governance and risk management.

Continue and improve remote communication

Effective communication is a cornerstone of a credible and high-impact internal audit function. It ensures that audit findings are clearly understood, that recommended actions are interpreted accurately, and that all relevant stakeholders remain informed and engaged throughout the audit life cycle. One of the key recommendations emerging from this study is the need to strengthen both the quality and consistency of communication related to audit outcomes as well as their implementation.

Neutral or inconsistent perceptions of management support can undermine audit effectiveness. To address this, organisations should implement clear, consistent communication strategies, such as executive messaging and visible senior leadership support, to reinforce the value of internal audits and promote a culture of cooperation.

Senior leadership plays a crucial role in shaping this culture. When executives actively communicate and engage with audit initiatives, it signals that audits are not just compliance tasks but strategic tools for governance and improvement. Digital platforms should be used to clearly communicate audit timelines, scope, and expectations. Ensuring accessibility at all management levels through tools like messaging apps, intranet updates, or virtual office hours fosters engagement and transparency.

Audit reporting should be streamlined for clarity and timeliness, transforming reports from formalities into actionable insights. Regular virtual check-ins and collaborative sessions between auditors and management strengthen relationships and support continuous dialogue.

Finally, training on digital communication tools empowers teams to engage effectively, boosting confidence and participation. In essence, reshaping perceptions of internal audit starts with communication that is transparent, inclusive, and empowering, turning the audit function into a trusted, strategic partner across the organisation.

Leverage strong leadership attention

Strong leadership engagement is critical to maximising the effectiveness of the internal audit function. Leadership involvement fosters a culture of accountability, ensures timely submission of audit evidence, and drives active stakeholder participation throughout the audit process. Without sustained top-level attention, audit activities risk being deprioritised, weakening their overall impact.

Research confirms this link: top management involvement is strongly correlated with successful implementation of audit recommendations and overall audit effectiveness (Alzeban & Gwilliam, 2014).

Leadership attention reinforces the strategic importance of audits, ensuring findings are acknowledged, acted upon, and integrated into decision-making.

To institutionalise leadership engagement, organisations should include audit updates as a standing item in executive meetings. These updates should highlight not only technical findings but also their broader implications for governance, performance, and risk management. This visibility keeps audit priorities aligned with strategic objectives.

Leadership should proactively track the status of audit recommendations and hold responsible parties accountable. This signals that internal audit is a vital part of the organisation's continuous improvement efforts, rather than merely a compliance exercise. Senior involvement in follow-up significantly boosts the timeliness and effectiveness of corrective actions.

A collaborative relationship between leadership and audit teams further enhances audit relevance. When leaders contribute to audit planning and provide feedback on objectives, audits are more likely to address key organisational risks and goals.

In summary, sustained leadership attention strengthens audit effectiveness by driving timely action, improving accountability, and aligning audits with strategic priorities. Regular updates, active follow-up, and collaboration between leadership and audit functions are essential for reinforcing the audit's role in enhancing governance and risk management across the organisation.

Train managers on remote internal audit engagement

While the overall availability and responsiveness of management and staff during remote internal audit engagements were generally rated positively by respondents, the presence of notable variability in responses suggests inconsistency across departments and organisational levels. This inconsistency may hinder the efficiency and effectiveness of remote audits, particularly in cases where managers are unclear about their roles, responsibilities, or the technological tools required to facilitate remote interactions with auditors.

To address this issue, it is recommended that targeted training be provided to departmental and operational managers. Such training should focus on clarifying the expectations for remote audit participation, outlining the audit process, and equipping managers with the necessary skills and knowledge to use virtual communication platforms, document-sharing systems, and audit management software effectively. In doing so, the organisation can promote a more consistent and proactive level of engagement from management across all audit areas.

Standardising managerial understanding and preparedness through training not only improves responsiveness but also helps foster a culture of collaboration and accountability within remote audit

environments. This approach aligns with best practices in change management and digital transformation, where employee readiness is a key factor in the successful adoption of new processes and technologies.

Ultimately, by investing in capacity building for managers, the organisation can enhance the quality and efficiency of remote audit engagements, reduce delays in information exchange, and support the overall goal of maintaining a high-performing internal audit function in a digitally enabled workplace.

Establish clear and specific timelines for actionable audit recommendations

A key finding of this study is the delayed or inconsistent implementation of audit recommendations, which undermines the effectiveness of the internal audit function. Timely execution of recommendations is critical to addressing control weaknesses, mitigating risks, and strengthening the organisation's governance framework.

To resolve this issue, organisations must establish clear, specific, and actionable timelines for each audit recommendation. Realistic but firm deadlines ensure that responsible parties take prompt and deliberate action. Without defined timeframes, ambiguity and lack of urgency can stall progress – especially when ownership of tasks is unclear.

Timelines should reflect the complexity and risk level of each finding. High-risk issues or critical control weaknesses require expedited resolution, while less urgent items may allow for more flexible deadlines. Regardless, all actions must be time-bound and aligned with the organisation's risk management priorities.

In parallel, a robust tracking mechanism should be implemented to monitor progress. Whether manual or software-based, this system must provide real-time visibility into the status of corrective actions. It should allow both internal audit teams and senior management to identify delays, escalate concerns, and intervene where necessary to maintain momentum.

Clear accountability is essential. Each recommendation should be assigned to a designated individual or department responsible for execution and regular status reporting. Ongoing communication – through progress reports or follow-up meetings – helps ensure that obstacles are addressed promptly and that corrective actions stay on track.

Together, these measures enhance the timeliness, consistency, and impact of audit recommendation implementation. By enforcing deadlines, monitoring progress, and assigning ownership, organisations can improve the credibility and value of the audit function. This structured approach supports stronger governance, better risk mitigation, and a culture of accountability and continuous improvement.

In summary, prompt implementation of audit recommendations hinges on three critical enablers: clearly defined timelines, dedicated accountability, and systematic progress tracking. Embedding these practices into audit follow-up processes maximises the audit's contribution to organisational performance and strategic risk management.

Improve tracking and monitoring systems for audit implementation

Improving audit recommendation tracking is essential for ensuring effective implementation and maintaining audit credibility. One of the main challenges in the audit life cycle is the lack of formal, transparent systems to monitor follow-up actions. Without a robust tracking mechanism, corrective actions can be delayed, inconsistently executed, or overlooked, exposing the organisation to ongoing risks.

To address this, organisations should develop or upgrade centralised, automated tracking systems that monitor the status of audit recommendations across all departments. These systems should ideally integrate with broader governance, risk, and compliance frameworks and include features such as:

- Automated alerts for upcoming or overdue items.
- Role-based dashboards for executives, auditors, and managers.
- Audit trail functionality to track the history of actions taken.

Such tools ensure clear accountability, visibility, and timeliness. They help identify implementation bottlenecks, allocate resources efficiently, and escalate unresolved issues. Regular follow-up through management meetings or audit committee reviews, supported by visual dashboards and summary reports, keeps audit implementation a standing priority.

To strengthen oversight, organisations should align tracking with KPIs such as average implementation time, percentage of overdue actions, and recurrence of past issues. These metrics offer insights into responsiveness and operational discipline, informing strategic decisions on resource deployment or training needs.

In summary, enhancing audit tracking systems is a strategic move that supports accountability, risk mitigation, and continuous improvement. When supported by proper infrastructure and leadership attention, audit recommendations become drivers of tangible, organisation-wide progress.

5.4.2.2.1 Promote a culture of accountability

For the internal audit function to be truly effective, it is critical that there is a culture of accountability at all levels of the organisation. Management must lead by example, demonstrating commitment to

following through on audit recommendations and holding employees accountable for implementing corrective actions. One way to instil accountability is through clear ownership of action items assigned to specific departments or individuals. Performance reviews and departmental goals can be aligned with the timely resolution of audit findings, thereby incentivising prompt action and fostering a sense of responsibility among management and staff.

Foster cross-departmental collaboration and ownership

In many organisations, audit findings require the involvement of multiple departments to resolve complex issues. To improve the implementation process, management should foster greater cross-departmental collaboration. Regular interdepartmental meetings can ensure that all relevant stakeholders are on the same page and are actively working toward resolving the issues identified in audit reports. Additionally, ensuring that audit recommendations are integrated into departmental objectives and performance metrics can increase ownership and urgency in addressing control weaknesses.

Encourage regular review and feedback on audit findings

It is crucial for management to not only act on audit findings but also to provide feedback on the outcomes of implemented recommendations. Periodic reviews of previously identified issues will help to assess whether corrective actions have been effective in mitigating the risks or weaknesses they were designed to address. If issues persist, it may signal that further action is needed or that the original recommendations were not fully effective. Providing feedback on the results of implemented actions will allow the organisation to continuously improve its internal audit processes and build a cycle of ongoing learning and adaptation.

Strengthen the role of internal audit in strategic decision-making

To ensure that management fully supports the internal audit function, it is important that internal audit teams are viewed as key strategic partners in the organisation, rather than merely compliance or risk-checking entities. Integrating internal audit findings into broader strategic discussions and decision-making processes will help to elevate the value of audit insights and ensure that corrective actions align with the organisation's overall objectives. This strategic involvement can also help to create a culture where management recognises the importance of proactive engagement with audit recommendations and the positive impact these actions have on organisational effectiveness.

Monitor and evaluate management participation

Sustained management engagement is essential for the success of remote internal audits. To ensure audits are both compliant and strategically aligned, organisations must actively monitor participation

across all audit phases. Tracking who engages, how often, and to what extent offers insights into organisational readiness, collaboration, and potential resistance. Metrics such as timely submission of audit evidence and involvement in planning or updates reflect departmental ownership and accountability.

Leadership sets the tone. When executives participate in planning and endorse audit efforts, they foster a culture of collaboration and commitment. Combining this top-down support with engagement data helps identify gaps, improve communication, and strengthen overall audit impact. Encouraging consistent engagement through clear expectations, streamlined processes, and recognition helps embed audits as a shared responsibility. These practices directly address gaps identified in this study and reinforce management's role in audit effectiveness.

Systematic engagement monitoring improves transparency and ensures that remote audits deliver strategic value, not just compliance. Strengthening management commitment, tracking support metrics, and fostering accountability contribute to better implementation of audit recommendations and stronger governance.

The following section concludes the management support component, summarising insights from internal auditors and chief internal auditors. It highlights how proactive and ongoing management engagement significantly influences the internal audit function's effectiveness and value within the organisation.

5.4.2.3 Conclusions on management support findings

This study's findings indicate that stakeholders generally perceive management as being supportive of remote internal auditing. This support is demonstrated through timely access to digital documents, active participation during planning phases, and responsiveness to audit outcomes. Such engagement contributes to greater audit efficiency, reduces delays, and reinforces the value of the internal audit function.

The results confirm that management support is a critical factor influencing the effectiveness of remote internal audits. These findings are consistent with previous research emphasising the importance of strong managerial involvement in ensuring that internal audit units function optimally and that their recommendations are successfully implemented (Alzeban & Gwilliam, 2014).

Despite the generally positive perceptions, persistent inconsistencies remain, particularly in the timely submission of evidence and the implementation of audit recommendations. The observed variability, reflected in moderate standard deviations, suggests uneven experiences across organisational units. These discrepancies point to possible communication breakdowns and unclear expectations within

remote audit environments. Enhancing management support will require more than improved communication and technology; it also calls for cultural and structural shifts that promote accountability, clarity, and collaboration across functions.

The Spearman correlation analysis further underscores the importance of management engagement, revealing strong relationships between management availability and top-level attention ($\rho = 0,737^{**}$), and between the provision of digital evidence and the implementation of audit findings ($\rho = 0,586^{**}$). These results highlight the need for both operational and strategic involvement by management to drive audit effectiveness.

To maximise the value delivered by internal audit functions, organisations must reinforce management's active and visible involvement, ensuring timely digital support, meaningful participation in audit planning, and accountability in acting on audit findings. Addressing areas of inconsistency while building on current strengths will help internal audits remain a robust mechanism for governance and risk assurance in an increasingly digital work environment (Alzeban & Gwilliam, 2014; The IIA, 2023). Consistent, structured, and visible management support is essential for remote internal audits to be effective and impactful.

The following section discusses remote audit quality, identified as the third key determinant of remote internal audit effectiveness. This section explores the factors that influence the quality of audits conducted in a remote environment, including the adequacy of technological tools, and the auditors' ability to maintain professional standards without physical presence.

5.4.3 Section C: Quality in remote internal audits

Quality is essential in remote internal audits because it ensures the audit remains effective, reliable, and credible despite the physical distance. High-quality audits provide accurate findings, clear recommendations, and strong assurance to stakeholders, helping maintain trust and confidence in the audit process. It also mitigates the risks of miscommunication, oversight, or data errors that can arise from working remotely. Consistent quality demonstrates that remote audits can match or exceed the standards of traditional, in-person audits, supporting their acceptance and long-term success. As more organisations adopt remote audit practices, interest is growing in how this transition affects audit quality.

The next section highlights the primary insights into quality, identified as the third determinant of internal audit effectiveness. The insights gained contribute to a deeper understanding of how remote audit quality supports or hinders the overall effectiveness of the internal audit function in a digital or hybrid working environment.

5.4.3.1 Key findings on quality

This section presents the major findings from the analysis of Section C in the questionnaire (see Section 4.6.3), which examined the quality of remote internal audits. Ten structured questions focused on key quality indicators such as compliance with internal auditing standards, ICT infrastructure, planning and execution, audit scope, and data quality.

This study's findings support the idea that remote internal audits can significantly enhance audit quality. Respondents indicated that remote audits have improved the accuracy of information, broadened audit coverage, and enabled more efficient use of resources. Remote formats offer greater agility and real-time collaboration, allowing auditors to dynamically adjust their procedures in response to emerging risks or concerns (Bhattacharjee *et al.*, 2020).

Proper planning and supervision

A strong majority of respondents (89,7%) confirmed that remote audits are effectively planned, executed, supervised, and reviewed. This high level of agreement demonstrates broad confidence in the internal audit function's ability to maintain procedural integrity and discipline, even when audits are conducted remotely. The high mean score (4,10) supports this perception, indicating that respondents not only agree but strongly agree that core audit processes remain well-structured and consistently applied in remote settings.

Furthermore, this finding is reinforced by a statistically significant and strong positive correlation with internal quality assurance reviews ($\rho = 0,607$, $p < 0,01$). This correlation suggests that effective planning and supervision practices are closely linked to the outcomes of regular internal quality assessments, which serve as key mechanisms for monitoring audit performance and ensuring compliance with professional standards.

Together, these results provide compelling evidence that, despite the shift to remote environments, internal audit teams have largely succeeded in preserving the rigour of their methodologies. Effective planning and supervision are critical to audit quality, as they ensure that audit objectives are clearly defined, risks are properly assessed, procedures are executed systematically, and findings are subject to appropriate oversight and review.

This consistency in process suggests a level of maturity in remote audit operations and highlights the importance of structured internal controls and audit management frameworks. Moreover, it indicates that remote audits, when supported by robust planning, supervision, and quality assurance, can uphold the same standards of reliability and accountability traditionally associated with on-site audits. However, while these results are encouraging, they also imply the need for continued investment in

training, audit technology, and standardised remote audit protocols to ensure these high standards are maintained across all audit teams and engagements.

Compliance with auditing standards

A large majority of respondents (86,2%) confirmed that remote internal audits conform to International Professional Practices Framework (IPPF) standards, indicating strong confidence in their professionalism and methodological rigour. The IPPF, established by The IIA (2023), sets global standards for internal auditing, including principles such as independence, objectivity, competence, and due professional care.

This high perception of compliance is statistically linked to key quality factors:

- QAIP enhancements ($p = 0,570$, $p < 0,01$).
- Annual internal audit reviews ($p = 0,498$, $p < 0,01$).

These correlations suggest that organisations with structured quality frameworks are more likely to maintain IPPF-aligned audit practices.

The findings align with prior studies (D'Onza *et al.*, 2015a; Maletta, 2013), which emphasise that adherence to professional standards enhances audit credibility, effectiveness, and stakeholder trust. Despite the challenges of remote work – such as limited physical presence and reliance on digital records – strong methodological discipline and ethical oversight can be preserved.

This high level of perceived compliance reflects the maturity and adaptability of internal audit functions in transitioning to remote or hybrid models without compromising standards. However, perceived compliance does not guarantee consistency. The links with QAIP and internal reviews highlight the need for ongoing monitoring, regular assessments, and continuous improvement. Sustaining high standards will require continued investment in auditor training, methodology updates, and the integration of quality controls into day-to-day operations.

In summary, strong IPPF compliance, supported by quality assurance metrics, underscores the professionalism and governance maturity of remote audits. It also reinforces stakeholder confidence and the organisation's commitment to maintaining audit integrity in evolving work environments.

ICT infrastructure adequacy

Only 58,6% of respondents agreed that the current ICT infrastructure is adequate for conducting remote audits, indicating a moderate level of satisfaction with the technological tools and systems available to support remote auditing activities. This is further reflected in the moderate mean score of

3,52, suggesting that while the infrastructure may be functional for many users, it is not universally robust or consistently reliable across all audit environments.

Moreover, the absence of significant correlations between ICT adequacy and other key indicators of audit effectiveness implies that the impact of technology may vary significantly across different contexts. This variability may stem from differences in system access, bandwidth, hardware availability, technical support, or digital literacy among auditors and auditees. As a result, the perceived adequacy of ICT infrastructure may not translate uniformly into audit quality or efficiency.

This inconsistency presents a potential barrier to the scalability and sustainability of remote audit practices. As (Turetken, Stevens & Özkan, 2019) suggest, inadequate or unevenly distributed technological infrastructure can impair audit efficiency by limiting auditors' ability to access necessary data, conduct virtual interviews, or utilise audit software effectively. Such limitations can lead to delays, reduced audit depth, and challenges in maintaining professional standards in a remote environment.

Therefore, these findings highlight the need for organisations to invest not only in upgrading ICT infrastructure but also in ensuring its equitable distribution and consistent availability across all audit teams. Standardising access to reliable technology and providing training to maximise its use could enhance the overall effectiveness of remote audits and mitigate the risks associated with technological disparities.

Limitations in scope and depth

A total of 44,8% of respondents acknowledged experiencing limitations in audit scope due to certain procedures that cannot be effectively conducted in a remote environment. This reflects a common challenge in remote auditing, where physical absence restricts the auditor's ability to perform key activities such as on-site observations, physical inspections, inventory counts, and informal in-person interactions that can provide critical audit evidence.

The moderate mean score of 3,07 suggests a generally neutral to slightly negative perception of scope adequacy in remote audits, while the high standard deviation of 1,252, the highest among the measured items, indicates substantial variability in respondent experiences. This variation may be influenced by factors such as audit area, industry type, organisational readiness for remote work, and the maturity of audit technologies in use.

Further reinforcing the concern, a statistically significant positive correlation was observed between audit scope limitations and the risk of uncovered issues ($p = 0,524$, $p < 0,01$). This moderately strong correlation confirms that limitations in audit procedures, when certain tests or evaluations cannot be performed remotely, can materially increase the likelihood of undetected risks. This finding is critical,

as it directly links remote auditing constraints to potential weaknesses in risk identification and assurance quality.

Taken together, these results highlight the need for internal audit functions to develop mitigation strategies for scope-related limitations in remote settings. These may include adopting hybrid audit models, using advanced audit analytics, or developing compensatory controls and virtual testing techniques. Addressing these limitations is essential to maintaining audit effectiveness and ensuring that critical risks are not overlooked due to procedural gaps inherent in remote audit execution.

Perceived effectiveness compared to on-site audits

Respondents were evenly divided in their perceptions of remote audit effectiveness, with 44,8% agreeing that remote audits are more effective, while an equal proportion (44,8%) remained neutral. This lack of a dominant perspective indicates a considerable degree of uncertainty or ambivalence among internal audit professionals regarding the comparative effectiveness of remote audits versus traditional on-site audits. The mean score of 3,38, which falls just above the neutral midpoint on the Likert scale, further reinforces this trend, suggesting that the overall perception leans slightly positive but lacks strong consensus.

This finding reflects the complex and evolving nature of remote audit practices. While some respondents may have experienced efficiency gains, increased flexibility, and enhanced use of technology in remote settings, others may have encountered challenges such as reduced audit visibility, limited interaction with clients, and difficulties in verifying evidence or conducting certain audit procedures remotely. These mixed experiences likely contribute to the polarised and cautious perspectives expressed by respondents.

The high proportion of neutral responses may also point to a transitional phase in the internal audit profession, where organisations are still adapting to the remote audit model and have yet to fully standardise processes, technologies, and methodologies. Furthermore, this uncertainty could reflect varying levels of organisational preparedness, audit complexity, and stakeholder engagement across different contexts.

Overall, the finding underscores the need for further investigation into the conditions under which remote audits are most effective, as well as the development of best practices and performance benchmarks to guide internal audit teams in optimising remote engagements. Strengthening training, investing in robust digital tools, and promoting hybrid models may help address existing limitations and improve the perceived value and reliability of remote audit practices.

Integration into the QAIP

Approximately 65,5% of respondents agreed that enhancements have been integrated effectively into the QAIP, indicating a positive perception of the ongoing efforts to strengthen the internal audit function. This finding suggests that a significant portion of stakeholders believes that improvements in audit processes, methodologies, and performance standards have been successfully implemented as part of the QAIP. The positive perception is further supported by a strong and statistically significant correlation between the integration of these enhancements and the annual quality assurance reviews ($\rho = 0,604$, $p < 0,01$). This correlation points to the effectiveness of internal monitoring mechanisms, as regular quality assurance reviews likely play a central role in ensuring that improvements are not only proposed but also systematically integrated and maintained over time.

However, it is important to note that 34,5% of respondents expressed neutrality or disagreement with this statement, suggesting a potential communication gap regarding the development and implementation of enhancements in the QAIP. This lack of consensus may reflect a need for better communication strategies, ensuring that all stakeholders, including auditors, management, and audit committee, are fully informed of the changes and improvements being made. The findings highlight the importance of bridging this communication gap to foster greater alignment and support for the ongoing enhancements to the QAIP. Addressing this issue could strengthen the overall impact of the QAIP and contribute to the continued effectiveness and improvement of the internal audit function.

External service provider evaluation

The evaluation of external service providers, particularly through quality assurance reviews, revealed that only 55,1% of participants believed that external quality assurance review reports accurately reflect positively on remote audit practices. This indicates that just over half of the respondents viewed the external assessment of remote audit activities as favourable, suggesting that the majority of external evaluations recognise the quality and effectiveness of remote audit practices. However, the remaining 37,9% of participants expressed neutrality on this matter, indicating a degree of uncertainty or ambivalence regarding the findings of external reviews.

This mixed response highlights a potential gap in the communication and dissemination of quality assurance review results to internal stakeholders. The fact that nearly 40% of respondents were neutral suggests that there may be a lack of clarity, transparency, or engagement when it comes to communicating the outcomes and recommendations from external assessments. This communication gap could affect stakeholders' ability to fully appreciate the strengths and weaknesses of remote audit practices as identified by external evaluators.

Given the importance of quality assurance review in providing an independent and objective assessment of audit quality, it is crucial to enhance the process of communicating these findings to internal stakeholders. Effective communication can foster greater understanding, buy-in, and alignment on areas for improvement, thereby reinforcing the value of external assessments and ensuring that any identified gaps are addressed in a timely and systematic manner. In turn, this can contribute to strengthening the overall quality and credibility of remote internal audits within the organisation.

Annual internal quality assurance reviews

A strong majority of respondents (76,4%) confirmed that internal quality assurance reviews are conducted annually within the organisation. These reviews, which are a core component of the internal audit quality system, provide a systematic mechanism for assessing the effectiveness and consistency of audit processes. The findings show that these annual quality assurance reviews are closely correlated with most other quality indicators, highlighting their pivotal role in maintaining high standards across the audit function. Specifically, the reviews are linked to key areas such as audit planning, execution, reporting, and stakeholder communication, suggesting that they act as a foundational element in ensuring the overall quality and reliability of remote audits. The strong correlation with other quality indicators implies that regular internal reviews not only help identify areas for improvement but also reinforce a culture of continuous improvement, thereby enhancing the effectiveness, efficiency, and credibility of the remote internal audit function. These reviews, by serving as a benchmark for audit performance, contribute to the consistency of audit practices and provide valuable feedback to internal auditors for refining their methodologies and approaches.

Uncovered risks due to limitations

A notable finding from the study revealed that 48,3% of respondents agreed that limitations in the scope of internal audits can lead to significant risks remaining unidentified or unaddressed. This perception points to a potential gap in the comprehensiveness of audit coverage, raising concerns about the internal audit function's ability to provide complete assurance across all critical areas. The concern is further validated by a statistically significant positive correlation between perceived audit scope limitations and perceived limitations in audit depth ($p = 0,524$, $p < 0,01$). This moderate to strong correlation indicates that when the scope of an audit is restricted, it often results in a shallower examination of key processes and controls. As a result, there is a heightened risk of overlooking material weaknesses or emerging threats. These findings underscore the importance of implementing targeted process improvements, such as risk-based audit planning and enhanced stakeholder collaboration, to ensure that the internal audit function is both sufficiently broad in scope and deep in execution.

Access to data and data quality

The study revealed that a substantial majority of respondents (82,7%) believed that access to data and the quality of that data are sufficient to support the effective conduct of remote internal audits. This finding underscores the pivotal role that data availability and integrity play in enabling comprehensive and high-quality audit work in virtual environments. In the context of remote auditing, where physical verification is often constrained, auditors rely heavily on timely, accurate, and complete digital data to carry out risk assessments, control evaluations, and substantive testing.

Moreover, this perception of sufficient data access and quality is statistically validated by a positive correlation with key audit quality indicators, particularly with improvements in the QAIP ($\rho = 0,433$, $p < 0,05$). This correlation suggests that where data systems are robust and accessible, internal audit functions are more likely to demonstrate continuous quality enhancement, thereby reinforcing the relationship between data infrastructure and overall audit performance.

This finding aligns with existing literature on digital transformation in auditing, which emphasises the centrality of high-quality data to audit accuracy, speed, and depth (Alles, 2015; Yigitbasioglu, 2017). In remote audits, data not only serves as evidence but also enables automated procedures, analytics, and real-time decision-making, making it an indispensable resource for modern internal audit practices.

Furthermore, strong access to high-quality data can mitigate some of the traditional limitations of remote auditing, such as the inability to observe processes in person or to inspect physical documentation. When internal auditors are granted secure, timely access to structured and unstructured data from across the organisation, including financial records, operational databases, and compliance reports, they are better positioned to conduct thorough analyses, identify anomalies, and provide meaningful recommendations.

The high level of agreement on data access may also reflect the maturity of the organisation's IT infrastructure, including investments in enterprise resource planning systems, secure cloud storage, and data governance policies. These enablers are especially crucial in supporting remote work environments, where audit teams must navigate across multiple digital platforms to collect and verify information.

However, it is worth noting that despite this overall positive perception, the reliance on digital systems also introduces new risks. Data security, completeness, and integrity must be monitored continuously to ensure that audit conclusions remain valid and defensible. Inconsistencies in data formats, restricted access in certain departments, or delays in data extraction can still pose challenges that undermine audit efficiency and scope.

In conclusion, the finding that 82,7% of respondents perceive data access and quality as sufficient reaffirms the critical enabling role of digital infrastructure in supporting remote audits. The significant correlation with QAIP improvements further emphasises that effective data access is not merely a technical issue but a strategic asset for maintaining and enhancing internal audit quality.

The next section presents targeted recommendations aimed at strengthening the quality of remote internal auditing. These recommendations are informed by the findings of the study and are designed to address the challenges and limitations identified in remote audit practices.

5.4.3.2 Recommendations to strengthen the quality of remote internal auditing

Based on the study's findings, the following recommendations are proposed to improve the quality, reliability, and sustainability of remote internal auditing. These recommendations are informed by the literature and best practices in internal audit governance, remote auditing, and quality assurance. Nonetheless, certain concerns remain, particularly around limitations in audit scope, technological inconsistency, and unclear communication regarding QAIP.

To address these challenges, audit functions must continue to invest in hybrid approaches, targeted training programmes, and technology upgrades while maintaining transparency and engaging stakeholders in quality assurance efforts. Remote audits are increasingly supported by advanced technologies and digital platforms that streamline evidence collection, documentation, and communication. These tools enable auditors to securely access records, conduct virtual interviews, and maintain comprehensive audit trails, which are key elements in preserving audit integrity. Technologies such as data analytics, video conferencing, cloud-based storage, and workflow management systems contribute to more thorough and efficient audits. These tools allow auditors to analyse large datasets remotely, identify anomalies, and concentrate on high-risk areas with greater precision. As a result, both the efficiency and effectiveness of audits are enhanced. Despite these advantages, maintaining high audit quality in remote environments requires the consistent application of best practices, clear communication, strong IT support, and a commitment to continuous improvement.

Standardise remote audit protocols

To address inconsistencies and improve coordination, organisations should develop comprehensive SOPs for remote audits. These SOPs should outline expectations regarding document formats, engagement protocols, and timelines (Deloitte, 2021; The IIA, 2020a). Standardisation enhances comparability across audits and reduces variability in execution quality.

In light of the findings that reveal variability in the execution and follow-up of remote internal audits, it is recommended that organisations develop and implement SOPs specifically tailored for remote audit engagements. Standardising remote audit protocols is a strategic response to the challenges introduced by decentralised audit environments, inconsistent practices across departments, and varying interpretations of audit requirements.

The development of remote audit SOPs should aim to establish clear, repeatable, and scalable frameworks for conducting audits in virtual or hybrid contexts. These protocols should articulate expectations around document submission formats, communication timelines, digital evidence standards, and stakeholder engagement processes, ensuring that all parties involved in the audit are aligned from the outset.

As supported by guidance from The IIA (2020a) and insights from global professional services firms such as Deloitte (2021), structured remote audit procedures are essential for enhancing audit efficiency, transparency, and comparability across functions. Without standardisation, remote audits risk becoming fragmented, inconsistent in quality, and vulnerable to delays or miscommunications, factors that can undermine the effectiveness of the internal audit function.

The recommendation to standardise remote audit protocols through the development of comprehensive SOPs directly addresses the inconsistencies observed in the findings. It reflects a proactive, forward-looking approach to professionalising the remote audit function and aligning it with the internal auditing standards and best practices advocated by The IIA and leading audit practitioners. Ultimately, this step will enhance audit quality, reduce execution risk, and enable the internal audit function to remain agile, consistent, and value-adding in a digitally enabled audit landscape.

Strengthen ICT infrastructure

The effectiveness of remote auditing depends heavily on the strength of an organisation's ICT infrastructure. As remote audits become standard practice, secure, stable, and user-friendly systems are essential, not optional. Auditors now collect digital evidence and collaborate remotely. To support these activities, organisations must invest in purpose-built audit platforms offering (PwC, 2020):

- End-to-end encryption.
- Secure file sharing.
- Real-time analytics.
- Digital signatures.
- Integration with enterprise systems.

Collaboration tools, like video conferencing, chat, and shared editing, are also critical for seamless auditor-auditee interaction. Reliability is key. Downtime, poor connectivity, or limited data access can delay or compromise audits. Infrastructure must provide high uptime, strong bandwidth, and cross-border accessibility, while complying with data privacy laws.

Security is non-negotiable. As per The IIA (2021c), remote audit systems must protect sensitive data using multi-factor authentication, encryption (in transit and at rest), and role-based access controls to ensure audit integrity and confidentiality.

System integration enhances efficiency. Linking audit tools with enterprise resource planning systems, document management, and risk systems allows for real-time access, automated testing, and faster insight generation, thereby reducing manual effort and duplication.

A strong ICT foundation boosts audit agility, enabling responses to disruptions, supporting distributed teams, and providing scalability across geographies. It also prepares audit functions for future technologies such as artificial intelligence, machine learning, and automation.

In summary, a robust ICT infrastructure underpins a modern, secure, and agile remote audit function. It improves efficiency, ensures compliance, strengthens data security, and enables strategic value in an increasingly digital business environment.

Address audit scope limitations

Remote auditing, while efficient, may encounter limitations in contexts that require physical verification, observation of controls, or the secure handling of sensitive information. To mitigate these challenges, a hybrid audit model, combining remote and on-site procedures, is recommended, particularly for high-risk, high-complexity, or compliance-sensitive audits (ACCA, 2020b).

This blended approach allows auditors to leverage the efficiency of remote tools while preserving the depth and integrity of audit evidence through targeted in-person verification when necessary. As highlighted by The IIA (2020a), ensuring evidence completeness is essential for maintaining audit quality and stakeholder confidence, regardless of the delivery format.

Enhance communication on QAIP and quality assurance review

Improving the communication surrounding the QAIP and external quality assessment reviews is essential to foster transparency, strengthen accountability, and enhance the overall effectiveness of the internal audit function. According to The IIA (2017b), clearly communicating the outcomes of QAIP activities, particularly the results of external quality assurance reviews, not only fulfils professional

requirements but also builds trust with key stakeholders, including senior management and the audit committee.

QAIP is designed to assess and improve the efficiency, effectiveness, and overall quality of internal audit activities. However, its true value is realised only when its findings are shared and understood across all levels of the audit team and relevant organisational stakeholders. Transparent communication of quality assurance review outcomes provides assurance that the audit function adheres to the ISPPIA while also highlighting areas for improvement and professional growth. This openness reflects a commitment to continuous improvement and reinforces the credibility of the audit function within the organisation.

Sharing quality assurance review findings should extend beyond formal reporting. Internal communication strategies should ensure that audit teams receive actionable insights and clear guidance derived from these reviews. This can be achieved through follow-up workshops, targeted training sessions, and the integration of quality assurance review recommendations into internal audit planning and performance management systems. As emphasised by Sawyer *et al.* (2019), aligning QAIP outcomes with everyday audit practices helps embed quality and consistency into the audit culture, making it a continuous process rather than a periodic evaluation. Enhanced QAIP and quality assurance review communication also play a critical role in stakeholder engagement. When audit clients and executives are aware of the audit function's commitment to quality and observe evidence of self-assessment and external validation, it reinforces the audit team's professionalism, objectivity, and value contribution.

In conclusion, strengthening communication around QAIP and quality assurance reviews transforms them from compliance exercises into powerful tools for performance enhancement and stakeholder confidence. By making quality assurance an open and inclusive process, internal audit functions can drive meaningful improvements and reinforce their strategic relevance in a rapidly evolving business environment.

Integrate remote audit enhancements into quality assessment programmes

Lessons learned from remote audits – particularly insights from quality assurance reviews – should be systematically integrated into the organisation's broader quality assurance and improvement strategy. Embedding these findings into a continuous improvement framework ensures that effective remote audit practices are not only captured but institutionalised across the audit function (The IIA, 2021c).

This approach promotes the refinement of audit methodologies, tools, and processes based on real-world experience, enhancing adaptability and resilience. Moreover, it supports ongoing alignment with

the IPPF and ensures that audit activities continue to meet both global standards and evolving organisational objectives.

By formalising these lessons, audit functions can drive consistency, increase efficiency, and reinforce a culture of learning and innovation, critical for maintaining audit relevance and quality in dynamic operating environments.

Standardise data access protocols

Timely and reliable access to high-quality data is fundamental to the effectiveness of remote internal auditing. To address inconsistencies in data availability and reduce delays, organisations should develop and enforce standardised data access protocols. This includes the implementation of centralised data repositories and clearly defined data governance frameworks that outline who can access what data, when, and under what conditions. Standardisation in this area ensures that audit teams can consistently obtain the necessary evidence without prolonged requests or departmental bottlenecks. Furthermore, aligning these protocols with data protection regulations helps safeguard sensitive information while supporting audit integrity and transparency.

By formalising access procedures and improving data quality controls, institutions not only enhance the reliability of audit findings but also strengthen the overall efficiency of the remote audit process. As noted by KPMG (2020b), integrated and governed data systems are key to building a resilient, technology-enabled audit environment.

Provide training on remote auditing standards

To maintain audit quality and uphold professional integrity in a remote audit environment, it is essential that internal auditors receive targeted training on how to effectively apply the ISPPA in virtual settings. The IIA (2021b) emphasises that while the core principles of auditing remain unchanged, the remote delivery of audit activities introduces new complexities that demand tailored guidance and skill development.

Remote audits, by their nature, present unique challenges, including reduced physical access to records, reliance on digital communication tools, and greater dependence on IT systems and cybersecurity controls. These factors require auditors not only to understand the traditional application of auditing standards but also to interpret and apply them within a digitally mediated context. For instance, gathering sufficient and appropriate evidence, maintaining confidentiality, and ensuring effective engagement with stakeholders are tasks that can be more nuanced and technically demanding when done remotely.

As such, continuous professional development is crucial. According to ISACA (2020), staying current with evolving technologies, risk landscapes, and digital audit methodologies is a fundamental component of maintaining audit effectiveness. Regular training on remote auditing standards ensures that auditors are proficient in leveraging digital tools (such as secure video conferencing, data analytics platforms, cloud-based audit management systems) while still adhering to established professional guidelines.

Moreover, formal training can help address potential knowledge gaps and inconsistencies in practice, thereby promoting standardisation and reducing variability in audit quality across teams and geographies. It fosters confidence among stakeholders, who expect internal auditors to demonstrate not only technical proficiency but also an understanding of how to navigate and assess modern, digitally enabled operating environments.

Ultimately, providing targeted training on remote auditing standards will help ensure that internal audit functions remain resilient, agile, and aligned with both professional requirements and organisational expectations contributing to the sustained credibility and value of internal audit in an increasingly digital business world.

Regularly evaluate remote audit effectiveness

The effectiveness of remote internal audits should not be assumed as static; instead, it requires ongoing evaluation and adaptation. Establishing a structured feedback loop, incorporating KPIs, internal auditor reflections, and auditee input, is essential for identifying areas for improvement and enhancing audit practices over time (Deloitte, 2021).

Regular evaluations support agility in audit methodologies, enabling the internal audit function to remain responsive to technological advancements, changing risk environments, and stakeholder expectations. This approach aligns with The IIA's (2017b) QAIP, which emphasises continuous assessment to maintain the relevance, efficiency, and reliability of audit activities.

In addition to ensuring alignment with best practices, consistent evaluation fosters a culture of accountability and learning, helping internal audit teams adapt to the unique challenges posed by remote engagement, such as limited physical verification, communication lags, or reliance on digital evidence.

Therefore, integrating regular reviews into the audit cycle not only improves operational performance but also reinforces audit quality, stakeholder trust, and the strategic value of internal audit within the organisation.

Enhance ICT support during remote audits

Effective ICT support is crucial for the seamless execution of remote audits. Given the reliance on digital platforms for communication, data sharing, and evidence gathering, dedicated technical support is essential to address any real-time issues that may arise during the audit process. As noted by EY (2021), audit disruptions due to technical glitches or system failures can severely hinder productivity, delay timelines, and potentially compromise the quality of audit outcomes.

To mitigate these risks, institutions should implement responsive IT helpdesks that are readily available to resolve technical issues promptly. Additionally, contingency protocols should be established to quickly address common technical failures, such as platform downtimes, connectivity issues, or cybersecurity threats. Ensuring that these support structures are in place will enhance user confidence, allowing audit teams to focus on the substantive aspects of the audit rather than troubleshooting technical challenges.

By reinforcing ICT infrastructure and providing timely support, organisations can minimise disruptions, maintain audit momentum, and ultimately improve the overall efficiency and effectiveness of remote audits.

Ensure reliable access to high-quality data

Secure, centralised platforms that facilitate efficient data exchange are essential. Readiness checklists and automated workflows can help streamline evidence submission and verification (PwC, 2020a). These systems support data integrity and reduce the administrative burden on both auditors and auditees. By adopting the recommended strategies, organisations can cultivate a more cohesive and responsive management approach to remote auditing – one that improves audit quality, ensures timely action on findings, and contributes to a more resilient and accountable organisational culture.

The next section provides a conclusion on the quality of remote internal auditing, synthesising the key insights and findings derived from the study. The conclusion highlights the implications of these findings for internal audit practices, emphasising the need for continuous improvement, adaptability, and adherence to professional standards. Ultimately, this section underscores the critical role that audit quality plays in ensuring the overall effectiveness and credibility of remote internal audit engagements.

5.4.3.3 Conclusions regarding quality

This study concludes that remote internal audits are generally effective and closely aligned with professional standards, particularly in the areas of planning, execution, and internal quality assurance.

However, notable challenges remain, especially regarding ICT readiness, constraints in audit scope, and lingering concerns about the comparative effectiveness of remote versus on-site audits.

The presence of strong positive correlations among key quality indicators underscores the importance of an integrated quality management approach. This includes annual quality assurance reviews, implementation of a QAIP, and regular performance evaluations. To maintain and enhance the credibility and effectiveness of remote audits, organisations must continue investing in ICT infrastructure, auditor training, and the development of comprehensive quality assurance systems.

The analysis further reveals strong stakeholder confidence in the overall quality of remote internal audits, particularly in areas such as audit planning, compliance with standards, and data reliability. These findings are consistent with existing research, which suggests that remote audits can meet professional standards and provide reliable assurance, provided they are supported by robust technological frameworks and active organisational involvement (The IIA, 2020a; Vasarhelyi Kuenkaikaew & Little, 2015).

In summary, the transition to remote internal auditing has been largely successful. However, further refinement is required to ensure its long-term sustainability and continued value. Internal audit functions must address current limitations through targeted technological enhancements, process optimisation, and ongoing stakeholder engagement. These efforts are essential to uphold the audit function's core mandate of adding value and improving organisational performance (Moraa, 2012; Tureken Stevens & Özkan, 2019).

The next section addresses the findings on communication the fourth determinant of internal audit effectiveness.

5.4.4 Section D: Communication in remote auditing

Effective communication is crucial to the success of internal auditing, particularly in remote environments. With the shift to virtual operations, remote auditors have quickly embraced digital tools to communicate audit objectives, define scopes, share interim findings, and present final reports. This shift has been largely facilitated by advancements in ICT, which have transformed how audit functions are conducted.

Previously dependent on in-person interactions, internal audit communication is now conducted through platforms such as Microsoft Teams, video conferencing, chat applications, and cloud-based project management systems. These tools enhance collaboration between audit teams and stakeholders, enabling real-time interactions, swift issue resolution, and efficient tracking of requests and follow-ups, especially when direct, face-to-face engagement is not possible. Respondents in this

study noted that digital communication is faster, more flexible, and, when managed effectively, does not compromise audit quality.

The next section highlights the primary insights related to communication, which has been identified as the fourth key determinant of internal audit effectiveness. Effective communication is essential for ensuring that audit objectives, findings, and recommendations are clearly understood by all relevant stakeholders. This section examines how internal auditors convey information to management and the audit committee, the timeliness and clarity of audit reports, and the overall responsiveness of stakeholders to audit communications. Additionally, it explores how communication influences the implementation of audit recommendations and the perceived value of the internal audit function. By analysing these aspects, the section underscores the critical role of communication in fostering transparency, accountability, and collaboration within the audit process.

5.4.4.1 Key findings on communication

This research explored the role of communication in the effectiveness of the internal audit function, particularly within remote audit environments. Building on the work of Chambers and McDonald ,(2013), Karagiorgos *et al.* (2011), and Mihret and Yismaw (2007b), the study evaluated both the clarity and timeliness of communication between auditors and auditees.

Communication of audit scope, timelines, and objectives

The survey revealed that a substantial majority of respondents (84%) agreed or strongly agreed that the scope, timelines, and objectives of internal audits are communicated effectively prior to the commencement of remote audits. This high level of agreement indicates that organisations have largely succeeded in transitioning their audit communication processes to accommodate remote or virtual environments, maintaining clarity and alignment despite the physical distance.

This finding reinforces the widely accepted view that clear and timely communication is a critical success factor for effective audit execution. According to EY (2016), transparent communication ensures that stakeholders understand the purpose and expected outcomes of the audit, which in turn fosters better cooperation, enhances audit efficiency, and reduces the risk of misunderstandings or resistance during the audit process.

Furthermore, the high mean score (4,28) associated with this item underlines the consistency and reliability of pre-audit communication across organisations. This score reflects a generally positive perception among respondents, suggesting that audit teams are not only providing the necessary information in a timely manner but are also doing so in a manner that resonates with and is understood by stakeholders. These practices are consistent with the best-practice frameworks proposed by

Dejnaronk ,A.*et al.* (2016), who emphasise the importance of structured communication in setting clear expectations and fostering engagement.

The effectiveness of pre-audit communication is particularly significant in the context of remote auditing, where reliance on digital tools and virtual meetings necessitates a greater emphasis on precision and clarity. In remote environments, any ambiguity in audit scope or objectives can be exacerbated by the lack of in-person interactions. Therefore, the ability of audit teams to clearly define and convey audit parameters in advance is a testament to their adaptability and professionalism in the evolving audit landscape.

Overall, these results highlight that pre-audit communication has remained a strong point, even amidst changes in audit delivery methods. This supports the broader conclusion that well-communicated audit planning contributes directly to audit preparedness, stakeholder alignment, and the overall effectiveness of the internal audit function.

Clarity and timeliness of audit reports

The survey findings reveal that a significant majority of respondents (approximately 88%) are satisfied with the clarity, accuracy, and timeliness of remote audit reports. This high level of satisfaction reflects strong confidence in the ability of the internal audit function to deliver well-structured, comprehensible, and timely information, which is essential for enabling effective and informed decision-making at the management level.

The reported mean score of 4,20 further underscores the perceived quality of remote audit communication. Such a high average indicates not only consistency in performance but also a general alignment with stakeholder expectations regarding the delivery of audit findings. In the context of remote audits, where delays or miscommunication can hinder responsiveness, this finding suggests that the internal audit function has successfully adapted to virtual delivery formats without compromising the effectiveness of its outputs.

This result supports the assertions of Mihret and Yismaw (2007b) and Pule,N. (2014), who emphasise that timely and clearly communicated audit results significantly enhance the uptake and implementation of audit recommendations. Clear reporting helps bridge the gap between auditors and management, ensuring that findings are not only understood but also viewed as relevant and actionable. Moreover, timely reporting ensures that risks are addressed promptly, thereby increasing the value-added impact of the internal audit function.

From a practical perspective, this finding highlights that the audit team's reporting practices, including the use of standardised templates, executive summaries, and prioritised recommendations, may be

contributing to the perceived clarity and usefulness of audit outputs. It also suggests that remote audits, when supported by robust digital tools and effective communication protocols, can maintain or even enhance reporting quality.

Overall, the high satisfaction with the clarity and timeliness of remote audit reports demonstrates that the internal audit function is not only meeting its communication responsibilities but is also fostering greater management trust and responsiveness. By maintaining these strengths, the audit function can continue to serve as a strategic partner in governance, risk management, and performance improvement.

Preferred mode for follow-up communication

The findings indicate a divided preference regarding communication modes used during audit follow-up. While 44% of respondents preferred face-to-face interaction, 40% disagreed, and 16% were neutral, resulting in a lower mean score of 3,08. This distribution suggests no dominant consensus and reflects the complexity of auditor-auditee communication preferences in remote or hybrid environments.

This variation highlights the importance of flexibility in communication strategies, especially during the follow-up phase where clarification and collaboration are critical. Face-to-face interaction may be preferred for complex or sensitive issues, as it fosters immediacy, trust, and clearer dialogue, a view supported by Conteh (2021). However, the strong presence of digital communication advocates likely reflects increasing technological proficiency and the practical benefits of remote tools, such as scheduling ease and reduced travel costs.

The findings underscore the need to adapt communication methods to context, audit complexity, and stakeholder needs. A hybrid approach, combining digital and in-person interaction where appropriate, can help ensure that follow-up communications remain both effective and efficient.

ICT's role in remote communication

A significant majority of respondents (80%) agreed that ICT tools facilitate effective communication between auditors and auditees with minimal disruption during remote audits. This finding highlights the central role of digital communication technologies in ensuring the continuity, responsiveness, and coordination of audit activities in environments where physical presence is limited or not possible.

The high level of agreement, supported by a strong mean score (3,96) and low standard deviation (0,889), indicates that perceptions of ICT support are not only positive but also relatively consistent across the respondent group. This suggests that the tools and platforms used, such as video conferencing (e.g., Zoom and Microsoft Teams), secure file-sharing systems (e.g., SharePoint and

OneDrive), and real-time collaboration platforms (e.g., Google Workspace), have been effectively integrated into audit processes and are meeting user expectations.

From a theoretical standpoint, this finding aligns with socio-technical systems theory, which posits that the effectiveness of organisational processes is enhanced when technological systems are harmoniously aligned with social and work processes (Trist & Bamforth, 1951). In the context of remote internal auditing, this means that well-implemented ICT infrastructure not only supports the technical execution of audit procedures but also sustains essential human interactions, such as planning meetings, clarification sessions, and exit interviews.

The reliance on ICT for communication in remote auditing reflects a broader shift in contemporary audit practice. As noted by Karagiorgos *et al.* (2011), digital tools have become increasingly integral to audit workflows, enabling auditors to conduct engagements with greater efficiency and flexibility. Particularly during and after the COVID-19 pandemic, organisations have adapted by embedding virtual communication channels into their core audit operations, allowing for sustained oversight without compromising audit quality.

This finding also signals that both auditors and auditees are becoming more digitally literate and adaptable, enabling them to engage effectively through virtual platforms. This enhances collaboration, reduces delays, and enables real-time problem-solving, all of which are vital for maintaining audit momentum and meeting deadlines. Moreover, effective ICT-enabled communication reduces the risk of misinterpretation or information silos, thereby strengthening clarity and mutual understanding between auditors and auditees.

However, while the finding demonstrates a high level of satisfaction with ICT support, it is important to recognise that technological adequacy is not uniform across all organisations or departments. Factors such as internet stability, access to secure networks, digital training, and the complexity of communication platforms may still pose challenges for some stakeholders. Therefore, to sustain this strength, organisations must ensure continuous investment in ICT infrastructure and provide targeted training to enhance user proficiency.

In conclusion, the positive perception of ICT's role in facilitating effective communication in remote audit settings reinforces its value as a strategic enabler of audit effectiveness. The consistency of satisfaction across respondents, supported by quantitative metrics, suggests that digital communication tools have been successfully integrated into the internal audit process, contributing to both efficiency and audit quality. Continued investment and innovation in this area will be essential for the long-term sustainability of remote auditing.

Timeliness and follow-up on audit recommendations

The survey findings indicate that 64% of respondents agreed that remote audit reports are followed up in a timely manner, with adequate reporting on findings that remain unresolved. This suggests a generally positive perception of the organisation's ability to act on audit outcomes but also reveals notable scope for enhancement in ensuring consistency in follow-up and documentation procedures.

The moderate mean score (3,84) reflects a satisfactory baseline performance, yet it also signals room for improvement. While most respondents perceived the follow-up process as timely, the fact that over a third of participants were either neutral or disagreed points to variability in practices across departments or audit cycles. This variability could stem from differing levels of commitment among management teams, a lack of standardised reporting templates, or insufficient audit trail mechanisms to verify whether actions have been completed.

This finding partially aligns with existing literature, such as Pule, M. (2014b), which emphasises the follow-through phase as a critical component of the internal audit life cycle. The value of an audit does not end with the issuance of the report; its effectiveness is only fully realised when the recommended actions are implemented, monitored, and verified. Without robust follow-up, even the most well-conducted audits may fail to translate into tangible improvements or risk mitigation.

Additionally, this result corresponds with The IIA Standards, particularly Standard 15.2: Monitoring Progress, which requires internal auditors to establish and maintain a system to monitor the disposition of audit results and ensure that management actions are completed as agreed. Gaps in follow-up may therefore indicate an area of non-conformance or a weakness in quality assurance practices.

Implications for remote auditing contexts

In remote audit environments, the challenge of timely follow-up is often exacerbated by communication lags, decentralised access to information, and difficulties in verifying corrective actions without physical presence. These factors necessitate a more structured and digitally supported follow-up process, using tools such as audit management software, workflow trackers, or automated reminders to ensure accountability and visibility across all levels of the organisation.

Moreover, timely follow-up is closely tied to organisational culture and the tone at the top. If senior leadership emphasises the importance of audit recommendations and regularly seeks updates on their implementation, departments are more likely to prioritise follow-up activities. Conversely, in organisations where audit recommendations are viewed as optional or where communication is fragmented, delays and inconsistencies in follow-through are more common.

While the majority perception (64%) suggests that the organisation performs reasonably well in following up on remote audit recommendations, the moderate mean score and observed variability point to a need for enhanced standardisation, documentation, and transparency. Given the critical role of follow-up in closing the audit loop and delivering lasting improvements, strengthening this process is essential for optimising the overall effectiveness of the internal audit function in a remote or hybrid environment. Robust and timely follow-up not only ensures the implementation of risk mitigation strategies but also reinforces the credibility and impact of the internal audit function across the organisation.

5.4.4.2 Statistical interpretation

The communication dimension of remote internal auditing was examined through both descriptive and correlational analysis to better understand which practices contributed most to audit effectiveness. The findings revealed compelling trends that both reinforce known best practices and offer new insights into the dynamics of remote audit communication.

Descriptive statistics showed that pre-audit communication emerged as the highest-rated practice among respondents, with a mean score of 4,28, closely followed by report clarity with a mean score of 4,20. These results suggest that when auditors establish clear expectations early and deliver well-structured reports, it significantly enhances the perceived quality and usefulness of the audit process. These two practices, setting the stage and delivering the outcome, form critical anchors in the communication life cycle of a remote audit.

In contrast, follow-up communication and the mode of interaction (e.g., virtual vs face-to-face) received more varied responses, indicating inconsistency in how these are experienced or perceived by stakeholders. This variability points to potential gaps in engagement or technological reliability during the post-audit phase, which could undermine the momentum built earlier in the process.

To explore these patterns further, Spearman's correlation analysis was conducted, uncovering statistically significant relationships that provide deeper context. The analysis revealed a strong positive correlation between pre-audit communication and timely, clear reporting ($\rho = 0,884$, $p < 0,01$), underscoring the importance of early engagement in setting the tone for the entire audit. When communication is proactive and transparent from the outset, it appears to pave the way for smoother reporting processes and clearer deliverables.

Additionally, there was a moderate to strong correlation between ICT effectiveness and timely follow-up ($\rho = 0,462$, $p < 0,05$), suggesting that reliable digital infrastructure plays a critical role in sustaining communication after the audit fieldwork has concluded. These findings highlight that post-audit

engagement, which is often underemphasised, depends significantly on the functionality and accessibility of digital platforms.

Interestingly, the analysis found no significant correlation between face-to-face interaction and other communication metrics, suggesting that physical presence may not be a decisive factor in remote audit success. This challenges traditional assumptions and supports the growing evidence that well-executed virtual communication can be equally effective, if not superior, in the context of modern internal auditing.

These findings support a growing body of literature that positions communication as a strategic enabler of remote audit success. Strong communication not only enhances operational efficiency but also strengthens trust, transparency, and alignment with stakeholders – outcomes that are essential to the legitimacy of the audit function (Chambers & McDonald, 2013; Linyelo, 2018; Mihret & Yismaw, 2007b).

Moreover, the strong relationships observed between pre-audit communication, reporting quality, and ICT-driven follow-ups highlight that effectiveness in remote auditing hinges less on physical presence and more on the coordination, consistency, and clarity of message delivery. Well-managed communication, underpinned by reliable digital platforms, becomes a critical differentiator in stakeholder satisfaction and audit impact.

As remote audits become more widespread in the post-pandemic landscape, communication strategies must evolve. The insights from this study point to the need for proactive, technology-enabled communication frameworks that prioritise stakeholder engagement across all phases of the audit life cycle.

In response to the findings presented, recommendations are proposed in the next section to enhance the effectiveness of communication within the internal audit function and to address the specific gaps that were identified during the study. These recommendations aim to improve the clarity, consistency, and timeliness of audit-related communications between internal auditors, management, and the audit committee. The proposed actions are aligned with best practices in corporate governance and are intended to support continuous improvement in audit performance and organisational transparency.

5.4.4.3 Recommendations to address communication findings

Effective communication is the cornerstone of successful remote internal auditing. To enhance communication practices and ensure audit effectiveness, the following actionable recommendations are proposed:

Standardise communication protocols

In the complex and fast-paced environment of modern organisations, inconsistent communication remains one of the most persistent challenges in executing effective internal audits, particularly in remote or hybrid settings. Misunderstandings, delayed responses, and scattered information can significantly undermine audit efficiency and stakeholder confidence. To address these challenges, organisations must move beyond ad hoc messaging and adopt standardised communication protocols.

Establishing a clear, organisation-wide communication framework is the first step. Such frameworks should define preferred communication channels, expected response times, and clear escalation procedures. When expectations are standardised and transparent, the risk of confusion is reduced, and accountability is strengthened across all levels.

Standardisation involves the use of consistent tools. Templates and checklists for outlining the audit scope, objectives, timelines, and deliverables provide clarity and ensure that all essential details are communicated uniformly. These tools not only reduce administrative errors but also help align understanding between audit teams and stakeholders from the outset.

Moreover, communication methods should be consistent across all stages of the audit. Whether it is through emails, video conferencing, or instant messaging, using a defined mix of written and verbal methods ensures that all parties remain on the same page. This becomes especially critical in remote environments where casual, in-person check-ins are no longer the norm.

By embedding standardised communication protocols into the internal audit process, organisations can improve transparency, reduce delays, and foster stronger collaboration. Ultimately, speaking the same language, both literally and procedurally, allows the audit function to operate with greater precision, clarity, and strategic impact.

Strengthen follow-up and reporting processes

An effective internal audit process does not end with the issuance of findings. In fact, the real value of an audit is often realised during the follow-up phase, where recommendations are translated into corrective action. However, without structured follow-up procedures, even well-founded audit findings risk being overlooked or indefinitely delayed, ultimately diminishing the impact of the audit function.

To ensure accountability and timely resolution, organisations must implement clear and standardised follow-up procedures. This includes assigning ownership for each audit finding, setting specific deadlines for resolution, and defining escalation mechanisms for unresolved or overdue items.

According to The IIA (2023), consistent follow-up practices are critical for reinforcing management accountability and enhancing organisational responsiveness to risk. Technology plays a key role in this process. Integrating follow-up tracking into audit management software allows for real-time visibility of recommendation statuses. Automated reminders, progress dashboards, and audit trails help audit teams and management alike monitor whether actions are being taken as planned. This digital integration transforms the follow-up process from a manual chore into a strategic oversight tool.

Periodic check-in meetings with auditees are another vital component. These sessions create opportunities to clarify implementation challenges, adjust timelines if needed, and keep momentum going. Regular dialogue not only improves transparency but also reinforces a culture of continuous improvement.

By formalising follow-up procedures and embedding them into both systems and schedules, organisations ensure that audit recommendations result in meaningful change. In doing so, the audit function becomes a driver of accountability, one that does not just identify issues, but ensures they are resolved effectively and sustainably.

Enhance ICT capabilities

In the shift toward remote and hybrid internal auditing, technology has become the backbone of success. Without reliable digital infrastructure, even the most well-designed audit processes risk falling short. Seamless communication, real-time collaboration, and secure information sharing are no longer optional, they are essential. To meet these demands, organisations must invest in dependable digital platforms that can support the unique requirements of modern audit teams.

Adopting secure, user-friendly tools such as Microsoft Teams or cloud-based audit management systems enables auditors and stakeholders to collaborate efficiently across locations. These platforms not only facilitate document sharing and virtual meetings but also ensure that audit activities remain traceable, secure, and compliant with organisational standards.

However, technology must evolve alongside organisational needs. Regular assessments of ICT tools are critical to ensuring continued effectiveness. Evaluating functionality, security, and user experience helps identify whether platforms remain fit for purpose or require upgrades. Such evaluations allow organisations to respond proactively to emerging risks, regulatory changes, and user feedback.

Equally important is equitable access to technology. High-speed internet, webcams, microphones, and other essential hardware must be available to all team members to ensure productive and inclusive virtual engagement. The absence of these resources can lead to communication breakdowns and uneven participation, undermining audit outcomes.

Ensure adequate access to technology: by investing in the right digital platforms, regularly assessing their performance, and ensuring broad access to necessary technology, organisations can build a resilient and responsive audit environment. In this way, technology becomes more than a tool, it becomes a strategic enabler of audit quality, accountability, and trust in a digital-first world.

Provide communication and technology training

Offer training on remote communication best practices. In the era of remote and hybrid work, the success of internal audits increasingly depends not only on technical proficiency but also on how well auditors and stakeholders communicate in digital environments. While platforms and tools form the foundation, it is human interaction – how people present themselves, engage, and collaborate online – that ultimately determines the effectiveness of remote audits. Recognising this, organisations must invest in targeted training that empowers audit professionals to communicate with clarity and professionalism in virtual settings.

Training on remote communication best practices should be a cornerstone of this effort. Auditors and stakeholders alike benefit from structured guidance on how to write concise and purposeful emails, conduct efficient virtual meetings, and use collaborative tools effectively. Platforms like Microsoft Teams and cloud-based audit software offer real-time document sharing, interactive dashboards, and secure file storage, but their impact hinges on users knowing how to fully utilise these features. Without training, even the most advanced digital tools can fall short.

However, technical skills alone are not enough. Remote auditing requires a strong digital presence, and that depends on soft skills. Training must therefore extend to areas like active listening, virtual presentation techniques, and digital empathy. These skills help auditors ask the right questions, interpret subtle cues in online meetings, and build trust despite physical distance. According to The IIA (2023), soft skills are increasingly critical in enabling auditors to navigate complex stakeholder dynamics and maintain engagement in remote contexts.

Ultimately, when organisations equip their audit teams with both technical and interpersonal skills, they are not just improving communication, they are fostering a more confident, agile, and connected audit culture. In a digital-first environment, where relationships and results are shaped through screens, this kind of training is not optional; it is essential.

Adapt communication modes based on audit phase

In the evolving landscape of remote internal auditing, how messages are delivered can be just as important as the messages themselves. As organisations embrace digital communication tools, striking the right balance between efficiency and empathy has become a critical component of audit

success. Routine updates, progress tracking, and formal documentation can be managed effectively through digital channels such as email, instant messaging, and video conferencing. These tools allow audit teams to stay connected with stakeholders across locations, maintain momentum, and document exchanges with clarity and consistency.

However, not all conversations are created equal. When addressing sensitive topics, such as high-risk findings, disagreements over recommendations, or corrective actions that may affect strategic decisions, purely digital communication can fall short. In such instances, allowing flexibility for face-to-face or hybrid interactions becomes essential. These more personal formats help build trust, reduce the risk of misinterpretation, and provide space for nuanced dialogue. According to recent guidance from The IIA (2023), tailoring communication methods to the nature of the message can significantly enhance stakeholder engagement and cooperation.

Equally important is understanding how stakeholders prefer to communicate. By taking the time to assess and respect these preferences, audit teams can increase the likelihood that their messages are not only heard but also understood and acted upon. Some executives may prefer concise email summaries, while others may value real-time discussions via video calls. A one-size-fits-all approach to communication can unintentionally alienate key stakeholders or slow down audit progress.

By integrating routine digital updates with flexible, context-sensitive communication strategies, internal audit functions can foster transparency, responsiveness, and trust. This adaptability ensures that communication remains not only efficient but also human, one of the most important qualities in a remote audit environment.

Monitor and evaluate communication effectiveness

In the realm of internal auditing, the quality of communication can shape the entire audit experience, from initial planning to final reporting. Yet, communication effectiveness has often remained an intangible element, evaluated informally or overlooked altogether. To professionalise and improve this critical aspect, organisations are beginning to treat communication not just as a skill but as a measurable performance indicator.

Include communication metrics in performance reviews. One effective approach is to incorporate communication metrics directly into audit performance reviews. Metrics such as stakeholder satisfaction scores, clarity of reports, and turnaround times provide quantitative insights into how well audit teams are engaging with their stakeholders. These data points offer an objective way to evaluate what was once considered subjective, linking communication success to accountability and continuous development.

Conduct post-audit feedback surveys, which are a valuable tool in this process. Administered after each audit, these surveys collect stakeholder perspectives on the clarity, responsiveness, and tone of communication throughout the engagement. As supported by best practices outlined by The IIA (2023), stakeholder feedback is not only a measure of past performance but also a roadmap for improvement.

Collecting data is only the beginning. The real value lies in using this feedback to identify gaps, refine communication strategies, and implement changes that enhance future audit interactions. For example, if survey responses highlight delays in report delivery or unclear messaging during meetings, audit leaders can respond with targeted training, updated templates, or revised communication protocols.

Use the feedback for continuous improvement. By embedding communication metrics into performance reviews and adopting a feedback-driven improvement cycle, internal audit functions move closer to becoming not just effective monitors of risk, but trusted advisors. This shift reinforces the idea that communication is not an auxiliary task, it is central to audit impact and credibility.

The following conclusion combines the key findings and implications of communication practices within remote internal auditing, offering final reflections and recommendations for strengthening this critical pillar of audit performance.

5.4.4.4 Conclusions regarding communication

This research underscores the pivotal role that effective communication plays in the success of remote internal auditing. As internal audit functions increasingly rely on digital tools to replace traditional face-to-face interactions, this study affirms that clear, timely, and well-structured communication is both achievable and essential in remote settings.

The findings indicate that internal auditors have successfully transitioned to using platforms such as Microsoft Teams, video conferencing, and cloud-based systems to communicate objectives, clarify scope, and present audit findings. High levels of satisfaction among respondents regarding the clarity and timeliness of audit communications suggest that digital methods are not only viable but can also maintain, and even enhance, audit quality when appropriately managed.

Statistical analysis reinforced the importance of early and effective communication, revealing strong correlations between well-communicated audit objectives and the clarity and timeliness of reporting. However, areas such as follow-up communication and the consistent tracking of audit recommendations were identified as needing further attention. The mixed preferences regarding

communication modes for follow-up discussions suggest that a flexible, context-driven approach should be adopted.

Moreover, the study highlights that while ICT is a key enabler of effective remote communication, its success depends on user competence, infrastructure quality, and clearly defined communication protocols. These findings support broader recommendations for standardising communication frameworks, investing in digital infrastructure, and providing training tailored to remote audit environments.

In conclusion, communication is not merely a supporting function but a strategic pillar in remote internal auditing. Strengthening communication practices through technology, policy, and training will be critical in enhancing audit effectiveness and stakeholder confidence, particularly as the profession continues to evolve toward more hybrid and flexible audit models.

5.5 Discussion of findings in relation to the conceptual framework and theoretical perspective

This section discusses the study's findings by linking the empirical results to the study context, conceptual framework, and underlying theoretical perspectives in order to explain how and under what conditions remote internal auditing achieves effectiveness.

The findings indicate that stakeholder perception provides a comprehensive measure of remote internal audit effectiveness, reflecting the combined influence of audit quality, communication, management support, and ICT infrastructure. Remote internal audit quality emerged as a central explanatory factor, exerting both a direct effect on stakeholder perception and an indirect effect through communication effectiveness. This underscores that high-quality audit work alone does not guarantee perceived effectiveness; it must be complemented by clear, timely, and useful communication, as well as by supportive organisational conditions.

Communication effectiveness was found to partially mediate the relationship between audit quality and stakeholder perception. Effective communication ensures that audit outcomes are understood, interpreted, and valued by stakeholders, which is particularly critical in remote auditing contexts where face-to-face interaction is limited. This finding aligns with communication theory, highlighting that information must be transmitted effectively to influence decision-making and stakeholder assurance.

Management support and ICT infrastructure were identified as important moderators, shaping the strength of these relationships. Visible and sustained management commitment legitimises audit activities, facilitates stakeholder engagement with audit outputs, and enhances confidence in the assurance provided. Similarly, robust ICT infrastructure enables auditors to perform their tasks

effectively and ensures that audit findings are communicated efficiently. These results reflect the contingency theory perspective, demonstrating that organisational effectiveness depends on contextual factors rather than universal practices.

From a stakeholder theory perspective, the study shows that stakeholders evaluate the internal audit function not only on technical competence but also on the clarity, usefulness, and credibility of communicated outputs. In the South African public-sector context, these findings emphasise the importance of aligning remote audit practices with stakeholder expectations to sustain trust and assurance. Collectively, the results provide an explanatory understanding of remote internal audit effectiveness, showing how audit quality, communication, management support, and ICT infrastructure interact to shape stakeholder perceptions in remote working environments.

5.6 Secondary Objective 4: To examine the relationship between remote internal auditing and stakeholders' assurance expectations

The fifth secondary objective was addressed in Section A of Chapter 4, under stakeholder perceptions (see Section 4.6.1), which discusses the determinants of remote internal audit effectiveness.

5.7 Secondary Objective 5: To formulate evidence-based recommendations and methodology for improving remote internal auditing practices to enhance audit effectiveness and value addition.

Remote internal auditing has proven to be a viable and efficient alternative to on-site audits; however, its success depends heavily on management support, IT readiness, clear communication, and continued stakeholder engagement. With appropriate investment in these areas, remote auditing can not only match the quality of traditional audits but also provide increased flexibility and resilience for the future.

To formulate recommendations, the following aspects were addressed under the specific determinant of internal effectiveness:

- Stakeholder perception: Section 5.4.1.
- Management support: Section 5.5.2.
- Quality: Section 5.4.3.
- Communication: Section 5.4.4.

The following framework was developed to enhance the overall efficiency, accuracy, and reliability of the remote audit process by addressing common challenges, streamlining communication, leveraging digital tools, and promoting a structured approach to audit planning, execution, and reporting.

5.8 Framework for improving remote internal auditing

This framework is structured around two interdependent components: a six-phase methodology cycle and eight foundational pillars. Together, they enhance the effectiveness, efficiency, and resilience of remote internal audit practices.

The six-phase methodology cycle provides a practical, feedback-driven roadmap that guides organisations through the planning, execution, and continuous refinement of remote audits. This cyclical process ensures a systematic and adaptive approach to implementation and improvement.

In parallel, the eight foundational pillars act as critical enablers that reinforce each phase of the methodology. These pillars address essential thematic areas such as digital capability, stakeholder engagement, audit quality, and risk-based planning, ensuring remote audits remain high-quality, strategically aligned, and future-ready.

Together, the methodology cycle and the pillars form a comprehensive, adaptable, and stakeholder-centric framework that supports not only the effective implementation of remote audit practices but also their long-term sustainability in a dynamic digital landscape. The next section discusses the methodology in more detail.

5.8.1 Methodology: Integrated framework for enhancing remote internal audit effectiveness

The six-phase methodology offers a structured, yet flexible framework tailored to the evolving demands of internal audit functions. It was designed in response to increasing digital transformation, decentralised operations, and heightened expectations for transparency and agility. The approach aligns with international auditing standards and accommodates organisations across varying levels of digital maturity.

5.8.1.1 Objectives of the methodology

The key objectives of this methodology are to:

- Align remote internal audit practices with stakeholder expectations and organisational strategy.
- Implement an integrated framework through a step-by-step, feedback-driven approach.
- Evaluate audit effectiveness using defined KPIs, stakeholder satisfaction, and audit quality metrics.

At the core of the framework is a six-phase methodology cycle, providing a clear and systematic path for implementing and enhancing remote internal audits. The next section discusses the six-phase methodology cycle.

5.8.1.2 Six-phase methodology cycle

This iterative process encourages continuous improvement and strategic alignment with organisational goals. The cycle consists of the following phases: planning, designing, implementing, monitoring, evaluating, and improving. Each phase builds on the previous one, fostering adaptability and a culture of learning. This enables remote audits to evolve and mature in response to emerging challenges and technological advancements.

Serving as a practical roadmap, the cycle supports both the transition from traditional to remote auditing and the enhancement of existing remote practices. It integrates critical components such as strategic planning, stakeholder engagement, quality assurance, and real-time feedback, all of which are essential for ensuring audit relevance and effectiveness in a digital environment.

A breakdown of the six phases and their corresponding activities is presented in Table 5.1.

Table 5.1: Six-phase methodology cycle

Phase	Description	Key Activities
1. Plan	Establish audit goals, engage stakeholders, and assess organisational readiness for remote auditing.	Ensure that stakeholder mapping, maturity model assessment, risk prioritisation and planning workshops are conducted.
2. Design	Tailor the framework to organisational needs and audit objectives.	Develop remote audit policies, digital workflows, training plans, and change management strategies.
3. Implement	Execute remote audits using defined protocols and tools.	Conduct remote audits using enhanced protocols, deploy dashboards, and assign change agents to oversee adoption.
4. Monitor	Track audit progress and identify issues in real-time using digital tools.	Use KPIs and audit dashboards to monitor quality and adherence to timelines.
5. Evaluate	Collect feedback and assess audit effectiveness.	Conduct post-audit surveys, quality reviews, and management evaluations.
6. Improve	Refine tools, training, and processes based on feedback.	Update SOPs, integrate feedback, enhance training, and recognise high-performing teams.

This cycle enables organisations to continually adapt and refine their remote audit practices, ensuring responsiveness to evolving risks, technologies, and stakeholder expectations. It offers a structured yet adaptable roadmap that supports implementation across diverse operational contexts and digital maturity levels.

In the following section, the eight foundational components that underpin and strengthen each phase of the cycle are introduced and discussed in detail.

5.8.1.3 Methodology components

Each pillar addresses a distinct but critical domain essential for achieving high audit quality, strong stakeholder engagement, and effective operational performance in a virtual environment. Collectively, they provide a strategic structure to support the systematic implementation of the six-phase cycle.

More than just isolated elements, these eight pillars operate in synergy, reinforcing one another to create a cohesive and high-performing internal audit function. This integrated approach ensures that remote audits remain not only technically sound and compliant with professional standards but also strategically aligned, adaptable, and capable of delivering meaningful value, even in complex, decentralised, or rapidly changing organisational contexts. Together, they form a comprehensive, stakeholder-centric, and future-oriented framework for transforming the internal audit function to thrive in the digital era. These components are introduced in the following subsections.

i) Process optimisation

This pillar involves reengineering the audit processes to promote efficiency, consistency, and adaptability in remote and hybrid settings. In an era defined by digital transformation and hybrid work models, internal audit functions must adapt by reengineering their processes to remain effective and resilient. Traditional audit methodologies, designed for face-to-face environments, can struggle to meet the demands of distributed teams, virtual communication, and cloud-based documentation. As such, process optimisation has emerged as a critical enabler of audit success in remote and hybrid settings.

At the core of this optimisation is standardisation. Establishing uniform workflows for remote audits, including digital evidence collection, communication protocols, and documentation practices, promotes consistency across engagements, regardless of location or audit team composition.

According to The IIA (2023), standardisation reduces the likelihood of process errors and ensures that audit quality remains high, even when conducted virtually. To support this transformation, digital tools must be integrated into everyday audit operations. Platforms offering checklists, templates, and project management functionalities streamline repetitive tasks, reduce administrative overhead, and

improve visibility across audit activities. These tools not only enhance efficiency but also enable real-time collaboration and tracking, features critical to the success of remote audits.

Yet, efficiency must be balanced with ethical responsibility. Remote auditing introduces new risks, such as data security vulnerabilities and reduced in-person oversight. To mitigate these, it is essential to embed ethical guidelines and digital safeguards into the audit process, tailored specifically to remote environments. These measures help preserve confidentiality, maintain objectivity, and uphold trust.

Process optimisation is not a one-time initiative; it requires ongoing reflection and refinement. By conducting post-audit evaluations and actively soliciting stakeholder feedback, audit teams can identify bottlenecks, uncover opportunities for improvement, and ensure that processes evolve in line with organisational needs and technological advances.

Ultimately, optimising audit processes for remote and hybrid contexts enables audit functions to be more efficient, adaptable, and strategically aligned. It transforms internal audit from a reactive control mechanism into a proactive, value-adding partner in governance and risk management.

ii) People and capability building

Foster digital readiness, continuous learning, and change resilience among auditors and auditees. As the landscape of internal auditing undergoes rapid digital transformation, the most significant enabler of success is not just technology, it is people. In remote and hybrid audit environments, the ability of auditors and auditees to adapt, innovate, and remain resilient in the face of change becomes paramount. Organisations must therefore invest in building digital readiness and fostering a culture of continuous learning, equipping their teams with the skills and mindset needed to thrive.

To start, targeted training is essential. Auditors and stakeholders must become fluent in remote auditing tools, cybersecurity protocols, data analytics, and digital ethics. These skills are no longer optional. According to The IIA (2023), digital competencies are now considered core capabilities for the modern audit professional, enabling more efficient, secure, and insightful engagements.

However, traditional training methods often fall short in virtual environments. To maintain engagement and combat digital fatigue, organisations should adopt innovative learning approaches such as microlearning, interactive webinars, and simulations. These formats provide flexible, bite-sized learning experiences that align with how today's professionals absorb information, especially in remote contexts where attention spans are often tested.

Change management is equally important. Identifying and empowering remote audit champions, individuals who advocate for and model best practices, can accelerate adoption and inspire others.

These champions, drawn from various departments, serve as liaisons between audit teams and stakeholders, helping to demystify processes and encourage participation.

Underlying all these efforts must be a broader cultural shift toward continuous professional development and innovation. By promoting a learning mindset and celebrating curiosity, organisations build resilience not only to technological change but also to evolving regulatory, strategic, and operational challenges.

In essence, capability building is not just a support function; it is a strategic imperative. The future of internal audit will depend on people who are not only digitally capable but also agile, collaborative, and committed to lifelong learning.

iii) Stakeholder engagement and communication strategy

Proactive engagement builds stakeholder trust, demonstrates audit value and alignment, and ensures positive perception of remote audits. In the world of remote internal auditing, trust is not built by proximity; it is earned through transparency, responsiveness, and clear communication. Stakeholder engagement is no longer a peripheral task but a central strategy that shapes how audits are perceived, valued, and supported. Proactive and structured communication not only fosters stakeholder trust but also reinforces the audit function's role as a strategic partner in governance and risk management.

A well-designed communication strategy begins before the audit itself. Pre-audit briefings that clearly outline the scope, expectations, and timelines set the tone for cooperative and informed engagement. Tailoring communication plans to different stakeholder roles, such as executives, department heads, and audit teams, ensures that the right messages reach the right people at the right time. Scheduled touchpoints, including weekly check-ins and formal closing meetings, maintain momentum and reinforce alignment throughout the audit process.

Post-audit engagement is equally critical. Structured debriefs and feedback sessions provide stakeholders with an opportunity to reflect on the audit experience, share concerns, and suggest improvements. According to The IIA (2021c), gathering this feedback not only enhances future audits but also demonstrates a commitment to continuous improvement and stakeholder satisfaction.

Transparency plays a vital role in shaping stakeholder perception. Sharing summarised audit outcomes, notable improvements, and success stories helps humanise the process and illustrates the value of the audit function beyond compliance. Creating stakeholder-specific dashboards can further enhance this transparency, offering real-time insights into audit status, open actions, and responsiveness.

Finally, feedback should not end with collection. Analysing communication trends and satisfaction data can inform audit methodology refinements and targeted training efforts. In this way, the audit function becomes a learning system, one that evolves in response to its stakeholders and strengthens relationships with every engagement.

In short, a strategic stakeholder communication plan does more than keep people informed; it cultivates trust, enhances audit impact, and positions internal audit as a valued contributor to organisational success.

iv) Digital capability and IT infrastructure

Technology is a key enabler of effective remote audits. Organisations should build a secure and scalable digital foundation to support seamless and real-time remote audit execution. The evolution of internal auditing into remote and hybrid models has fundamentally reshaped how audit functions operate. Technology has emerged not as a peripheral tool but as a strategic enabler, integral to ensuring the effectiveness, reliability, and credibility of audit outcomes. In this new landscape, a secure, scalable, and resilient digital infrastructure is no longer optional; it is the bedrock upon which remote audits are built. Without it, even the most competent audit teams may struggle to deliver timely insights or maintain stakeholder confidence.

To support seamless audit execution across dispersed teams, organisations must prioritise the deployment of secure, cloud-based platforms for document management, evidence collection, and collaboration. These platforms do more than centralise information; they ensure that audit records are accessible, traceable, and protected from unauthorised access. The importance of this is underscored by leading frameworks such as ISO 27001:2018 and ISACA's (2020) cybersecurity guidance, which stress the critical role of data security and integrity in sustaining trust in digital operations.

However, the presence of advanced systems alone is not sufficient. Technology must be supported by a robust ecosystem of user support. Audit teams and stakeholders require onboarding sessions, dedicated helpdesks, and ongoing IT assistance to navigate tools effectively and minimise disruption. Without this support, the benefits of digital transformation may be undercut by usability issues or disengagement.

In parallel, more advanced digital capabilities, such as data analytics and automation, are redefining audit value. These tools enable faster risk assessments, smarter sampling, and transparent progress tracking, turning static reports into dynamic, actionable insights. Real-time dashboards offer a window into the audit's status, allowing stakeholders to engage more proactively and make informed decisions as the audit unfolds.

Supporting all of this is the less visible but equally essential digital foundation: high-speed connectivity, reliable backup systems, and enforced cybersecurity protocols. These elements keep operations running smoothly and protect against the disruptions that could compromise audit quality or stakeholder trust.

Ultimately, digital capability is not just a component of remote auditing; it is its cornerstone. Organisations that invest in scalable infrastructure, security, and user support are not merely adapting to remote work trends. They are building a future-ready internal audit function – one that is agile, transparent, and aligned with the digital direction of modern enterprise governance.

v) Risk-based remote audit planning

Embed dynamic risk assessment into audit planning to prioritise areas that maximise value and reduce exposure. In a business environment defined by uncertainty, complexity, and rapid change, traditional audit planning models, often rigid and retrospective, no longer suffice. Instead, risk-based remote audit planning has emerged as a forward-looking approach that ensures internal audits remain relevant, strategic, and value-driven. By embedding dynamic risk assessment into the planning process, organisations can prioritise audit activities that not only reduce exposure but also maximise impact.

The foundation of this approach lies in proactive, data-driven risk identification. Pre-audit risk assessments now leverage advanced analytics, scenario modelling, and heat maps to visualise risk concentrations and pinpoint critical vulnerabilities. Real-time dashboards further enhance visibility, offering continuous monitoring of emerging threats and shifting risk landscapes. These tools enable audit teams to go beyond static annual plans and respond with agility to fast-evolving risks.

Predictive analytics play a particularly transformative role. By identifying patterns and forecasting potential disruptions, auditors can zero in on high-priority areas before issues escalate. This is especially valuable in industries facing rapid regulatory change or technological disruption, where yesterday's controls may be obsolete by tomorrow. As highlighted by Deloitte (2021), the ability to adjust audit scopes dynamically in response to evolving risk trends ensures that internal audit functions stay aligned with the most pressing organisational needs.

Flexibility is key. Risk-based audit planning must allow for the continual reshaping of audit scopes and timelines as new information becomes available. Rather than adhering strictly to a predefined schedule, audit resources are allocated to where they are most needed, whether that be cybersecurity vulnerabilities, third-party risk, or supply chain disruptions.

Ultimately, risk-based planning empowers internal audit to serve as a strategic advisor, not just a compliance mechanism. By focusing resources on high-risk, high-impact areas, remote audits become more than just exercises in oversight, they become integral to risk management and organisational resilience in an era where uncertainty is the only constant.

vi) Management support and change enablement

Secure leadership involvement to champion remote audits, ensure resources, and reinforce strategic relevance. In the evolving landscape of remote internal auditing, leadership support is not a supplementary advantage; it is a strategic imperative. The effectiveness and acceptance of remote audits are significantly enhanced when senior management is visibly involved, actively supportive, and aligned with audit objectives. Leadership engagement signals organisational commitment, drives participation, and ensures that internal audit remains relevant in the broader context of governance, risk, and strategy.

Securing early involvement of management during the audit planning phase lays the foundation for successful execution. When executives contribute to defining scope, aligning priorities, and setting expectations, audit teams gain not only strategic direction but also cross-departmental buy-in. According to Sawyer *et al.* (2019), transparent communication with leadership about audit progress, emerging risks, and operational challenges strengthens accountability and reinforces trust in the audit process.

Change enablement also hinges on internal advocacy. Identifying and empowering change champions—trusted individuals within departments who support audit efforts—can accelerate adoption of remote audit practices. These champions help translate strategic intent into local action, bridging the gap between auditors and operational teams.

Equally important is ongoing transparency. By providing management with timely updates, progress dashboards, and candid reporting on obstacles, audit functions maintain leadership engagement and secure continued resourcing. This openness ensures that audits are not perceived as isolated technical reviews, but as dynamic, organisation-wide efforts that contribute to continuous improvement and risk mitigation.

Ultimately, when leaders not only endorse audits but also actively participate in their evolution, remote auditing shifts from a logistical necessity to a strategic advantage. With strong management support and structured change enablement, organisations position internal audit as a trusted advisor—one that is agile, integrated, and capable of guiding change in an increasingly complex operational environment.

vii) Audit quality assurance and ethical standards

Ensure consistent oversight, high audit quality, and adherence to international standards to ensure credibility. As remote internal auditing becomes an established component of modern governance frameworks, ensuring its consistency, reliability, and integrity is paramount. To maintain the credibility and effectiveness of audit activities conducted beyond traditional office environments, organisations must embed formal governance structures and quality assurance mechanisms tailored specifically for remote execution.

At the heart of this transformation is the need for a formal remote audit policy. This policy should outline SOPs, compliance expectations, and ethical standards aligned with the IPPF. Establishing clear protocols not only reduces operational ambiguity but also ensures uniformity across geographically dispersed audit teams. It creates a shared understanding of what constitutes acceptable audit conduct in virtual settings, safeguarding the profession's credibility even in decentralised environments.

Quality assurance must also evolve to reflect the remote audit context. This involves conducting annual internal quality assessments alongside periodic external validations, as recommended by The IIA (2021a). Such reviews not only benchmark performance against industry standards but also identify areas for improvement, reinforcing a culture of accountability and excellence.

Measuring performance is another critical pillar. Implementing KPIs, such as audit cycle time, data accuracy, and stakeholder satisfaction, ensures that the audit function is evaluated not just on technical output but also on responsiveness, collaboration, and value delivery. These metrics can be tied directly to the foundational elements of the audit framework, enabling targeted enhancements over time.

In parallel, alignment with globally recognised standards, including IIA guidance, ISO 19011:2018 for auditing management systems, and ISACA's IT assurance frameworks, ensures that remote audit practices meet international benchmarks. Maintaining a robust QAIP specific to remote audits further reinforces this commitment to continual advancement.

Ultimately, remote auditing is not a temporary adaptation; it has become the new operational norm. By formalising governance structures, embedding ethical safeguards, and instituting rigorous quality assurance, organisations can elevate remote auditing from a reactive necessity to a proactive strategic function, capable of delivering value with the same rigour and trust as traditional audits.

viii) Feedback loop and continuous improvement

Sustainable improvement requires continuous feedback: in an era where agility and responsiveness define organisational resilience, internal audit functions must adopt a mindset of continuous learning and adaptation. Remote auditing, with its unique challenges and opportunities, particularly benefits from a structured feedback loop that fosters reflection, innovation, and sustainable improvement.

The foundation of this improvement process lies in the intentional collection of feedback from all participants. Structured post-audit surveys, debrief sessions, and stakeholder interviews serve as essential tools for capturing perceptions, identifying friction points, and gauging satisfaction with the audit process. This data provides more than just a performance snapshot; it serves as the diagnostic foundation for strategic enhancement.

When this feedback is actively analysed and acted upon, it becomes a catalyst for transformation. Adjustments to training content, refinements to audit templates, and updates to procedural guidelines all emerge from listening closely to the experiences of auditors and auditees. According to PwC (2020b), organisations that integrate feedback into their audit cycles are more likely to experience improved audit efficiency, stakeholder engagement, and alignment with enterprise risks.

Crucially, feedback loops also offer an opportunity to reinforce a culture of recognition and motivation. Acknowledging departments or individuals who contribute meaningfully to audit success, whether through timely evidence submission, active participation, or support in implementing recommendations, can elevate morale and promote continued cooperation. Recognising high-performing teams not only rewards excellence but also sets behavioural standards across the organisation.

Ultimately, the feedback loop is not a postscript to the audit process, it is a vital component of audit governance. It enables a cycle of reflection, refinement, and reinforcement, allowing the remote audit function to evolve continuously in line with stakeholder expectations, emerging risks, and technological advances. In embedding this practice, organisations ensure that internal auditing remains not only effective and compliant, but also forward-looking and adaptive.

To ensure that remote internal audit processes remain effective, transparent, and aligned with strategic objectives, it is essential to implement a robust evaluation framework, which is discussed in the next section.

5.8.2 Evaluation metrics

Evaluation not only enables performance tracking but also fosters accountability, guiding continuous improvement and supporting data-driven decision-making. KPIs across several domains provide a structured lens through which audit functions can assess both operational efficiency and stakeholder value.

Table 5.2: Areas with related key metrics

Area	Key Metrics
Audit quality	% of findings resolved, % compliance with standards
Stakeholder satisfaction	Post-audit survey scores, communication effectiveness
Timeliness	Audit cycle time, time to evidence submission
IT effectiveness	Downtime, number of support incidents
Management support	Participation rate, response time to audit requests
Maturity level	Movement across remote audit maturity model stages

Audit quality can be gauged through metrics such as the percentage of audit findings that are resolved within agreed timelines and the level of compliance with professional standards, including those set by The IIA and ISO. These indicators reflect the credibility and rigour of audit outcomes.

Stakeholder satisfaction is another critical area of evaluation. Post-audit survey scores, alongside qualitative feedback on communication clarity and responsiveness, help assess how well audit processes are received by those involved and whether expectations were met.

Timeliness remains a core operational metric. Tracking the overall audit cycle time and the average time taken to submit evidence offers insights into process efficiency and the level of coordination between auditors and departments.

IT effectiveness is particularly important in remote settings. Metrics such as system downtime and the number of technical support incidents highlight the reliability of digital infrastructure and the sufficiency of support mechanisms in place.

Management support can be measured through participation rates in audit planning and execution phases, as well as the average response time to audit requests. These figures indicate the extent of executive engagement, and the organisational priority placed on internal audit functions.

Finally, the overall maturity of the remote audit function can be assessed through movement across defined stages of a remote audit maturity model. This includes evaluating progression from ad hoc practices to more integrated, strategic, and optimised approaches.

By systematically monitoring these metrics, organisations can gain a comprehensive understanding of the performance and evolution of their remote audit practices. This approach ensures that the internal audit function remains not only compliant but also value-adding in a dynamic risk and operational environment.

The next section discusses the triangulated data collection approach employed by the methodology.

5.8.3 Data collection tools

To ensure a comprehensive and balanced understanding of remote audit performance, this study adopts a triangulated data collection approach. By drawing on multiple sources, the methodology enhances the reliability and depth of the findings, allowing for both quantitative measurement and qualitative insights.

One key instrument is the use of stakeholder feedback surveys, which are administered both before and after audit engagements. These surveys capture perceptions regarding communication effectiveness, engagement levels, and overall satisfaction, offering critical data on how audits are experienced across the organisation. In parallel, internal KPI dashboards provide real-time visibility into performance metrics aligned with the key pillars of the audit framework, such as audit quality, timeliness, and management support.

To assess the strategic evolution of remote auditing capabilities, maturity model self-assessment checklists are employed. These tools enable audit teams and stakeholders to reflect on their current practices and identify progress toward more advanced, integrated audit functions. Complementing this, the audit team debrief reports offer internal perspectives on each engagement by documenting challenges faced, lessons learned, and suggested improvements, thereby fostering continuous development and enhanced audit effectiveness.

Finally, the inclusion of external audit or quality review outcomes, conducted by independent reviewers, adds a crucial layer of objectivity. These assessments validate internal findings and ensure alignment with global auditing standards and best practices.

Together, these tools form a robust data collection system, providing a multi-faceted view of audit performance, stakeholder engagement, and organisational readiness for remote and hybrid audit environments. This triangulated approach not only supports rigorous analysis but also informs continuous improvement efforts across the audit life cycle.

This methodology is aligned with internationally recognised frameworks to ensure global relevance and internal consistency as is discussed in the section that follows.

5.8.4 Alignment with global standards

The internationally recognised frameworks that ensure global relevance and internal consistency are as follows:

- The IIA's (2023) IPPF.
- ISO 19011:2018: Guidelines for Auditing Management Systems.
- ISACA's (2020) Remote Audit Guidelines.

The expected outcome of implementing an enhanced remote internal audit framework is addressed in the next section. This section outlines the anticipated benefits and improvements resulting from adopting a more robust, technology-driven audit process.

5.8.5 Expected outcomes

The implementation of an enhanced remote internal audit framework represents more than just a response to operational disruption, it marks a strategic shift toward a more agile, data-informed, and stakeholder-centric audit function. At the heart of this transformation is a clear and replicable methodology, designed to be scalable across departments and adaptable to evolving risk landscapes. This structured approach ensures that remote auditing is not ad hoc but rather grounded in consistent, evidence-based practice.

One of the key outcomes is stronger alignment between internal audit and organisational strategy. By embedding dynamic risk assessment into audit planning and leveraging real-time analytics, audit activities are prioritised based on enterprise risk exposure, ensuring that the function adds value where it is most needed. This in turn supports a repeatable and standardised approach to remote internal auditing, fostering consistency and reliability in audit execution regardless of geography or modality.

Moreover, the framework contributes to improved audit quality and efficiency, resulting in measurable gains in stakeholder trust and satisfaction. As audit cycles become faster and more focused, organisations report lower operational costs and reduced turnaround times. Structured communication protocols and transparent reporting mechanisms have been instrumental in promoting a culture of accountability and openness, which is critical for long-term governance resilience.

Real-time feedback loops and performance dashboards fuel continuous innovation, allowing audit teams to refine tools, procedures, and engagement methods on an ongoing basis. This emphasis on adaptability enhances digital resilience, positioning the audit function to respond effectively to future disruptions, whether they are technological, regulatory, or economic.

Perhaps most significantly, the framework has led to greater stakeholder acceptance and satisfaction. When audits are conducted with clarity, consistency, and strategic alignment, they are not seen as intrusive checks but as collaborative tools for improvement. In this environment, internal audit evolves into a trusted advisor, helping organisations navigate risk with confidence and clarity.

To ensure both academic rigour and practical relevance, the enhanced framework for improving remote internal auditing is grounded in well-established theoretical models, international auditing standards, and evidence from empirical research. This multi-layered foundation strengthens the framework's applicability by ensuring it is conceptually sound, operationally viable, and adaptable across diverse organisational contexts.

The framework's applicability is demonstrated through its alignment with four key theoretical foundations: systems theory, stakeholder theory, institutional theory, and change management theory, which are discussed in the next section.

5.9 Theoretical and practical grounding of the framework

These theories provide a conceptual lens through which the complexities of remote auditing, such as technological integration, stakeholder communication, professional compliance, and organisational change, can be addressed effectively. Each of the following theoretical foundations informs specific components of the framework, ensuring that it is not only comprehensive but also responsive to the real-world challenges of remote auditing.

5.9.1 Systems theory

This framework adopts a systems thinking approach (Von Bertalanffy, 1968), recognising that effective remote auditing is dependent on the integration and coordination of various subsystems, technology, governance, communication, people, and processes. The eight pillars are interdependent, meaning improvements in one area (e.g., IT infrastructure) influence others (e.g., stakeholder communication), creating a cohesive and adaptive audit ecosystem.

5.9.2 Stakeholder theory

The inclusion of stakeholder engagement as a core pillar stems from stakeholder theory (Freeman, 1984), which posits that organisational success is tied to effectively addressing the needs of all stakeholders. Remote auditing, which inherently creates physical and relational distance, must actively cultivate trust, clarity, and involvement through structured engagement strategies.

5.9.3 Institutional theory

Organisations adopt practices that conform to industry norms, professional standards, and external expectations. The integration of international auditing standards (e.g., The IIA IPPF and ISO 19011) into the framework pillars supports institutional legitimacy and compliance, aligning remote audit practices with globally recognised norms.

5.9.4 Change management theory

The transition from traditional to remote audits constitutes a significant organisational change. The management support and change enablement pillar draws directly from change management principles (Kotter, 1996), emphasising leadership involvement, visible support, communication and the use of 'change champions' to reduce resistance and drive adoption.

The framework is validated through multiple dimensions as discussed in the next section: it is research-informed and future-ready, aligned with established auditing standards and best practices, and supported by both empirical findings and literature-based evidence. Furthermore, its relevance is reinforced by real-world developments, particularly the post-COVID transformation of remote audit practices.

5.10 Validation of framework

Overall, the framework is not a theoretical abstraction but a research-informed, standards-aligned, and contextually grounded model. It provides organisations with a structured and flexible pathway to enhance remote internal audit effectiveness, while also supporting continuous improvement, resilience, and strategic alignment in an increasingly digital environment.

5.10.1 Research-informed, future-ready framework

By combining academic theory, professional standards, and real-world audit experience, the framework offers a balanced, evidence-based model for driving excellence in remote internal auditing. It is designed not only to improve current audit practices but also to evolve with emerging risks, technologies, and stakeholder expectations, making internal audit more resilient, transparent, and strategically aligned.

5.10.2 Alignment with auditing standards and best practices

To ensure credibility, usability, and consistency, the remote audit framework was designed not only with theoretical foundations but also in alignment with internationally recognised auditing standards and professional guidance. This alignment strengthens the framework's legitimacy, making it more practical for adoption across diverse organisational contexts and jurisdictions.

At its core, the framework reflects the principles and requirements outlined by The IIA through its IPPF. The IPPF serves as the cornerstone of professional internal auditing, offering clear expectations for planning, execution, supervision, and quality assurance. The framework mirrors these core elements, ensuring that audits conducted remotely uphold the same professional standards as those carried out in traditional, in-person environments.

Further integration is seen with ISO 19011:2018, the international standard for auditing management systems. This standard emphasises risk-based thinking, consistent methodologies, and continuous improvement principles embedded throughout the framework's structure. By incorporating ISO guidelines, the framework reinforces its commitment to systematic, scalable, and repeatable processes that can be applied across remote and hybrid settings.

Contemporary guidance from professional bodies such as ISACA and ACCA (2020–2023) also played a critical role in shaping the framework's digital components. Their insights into remote audit practices, particularly in areas such as virtual evidence collection, remote risk assessments, IT governance, and cybersecurity, were essential for adapting traditional audit procedures to digital-first environments. These contributions ensured that the framework addressed not only procedural and ethical dimensions but also the technological realities and security demands of remote work.

By aligning with these globally accepted standards and professional bodies, the framework bridges theory and practice. It offers a well-structured, adaptable model that meets the high bar of international audit expectations, promoting not just compliance but excellence in remote internal audit performance.

5.10.3 Empirical and literature-based validation

The development of the enhanced remote audit framework did not occur in isolation. It is grounded in both empirical findings and established literature, ensuring its relevance, credibility, and applicability in real-world settings. By drawing from a diverse range of academic studies and professional industry reports, the framework not only reflects theoretical insights but also the lived experiences and practical challenges of audit professionals navigating remote and hybrid environments.

A core pillar of the framework is technology enablement, which has been widely recognised as essential to remote audit quality. Research by Mahzan and Veerankutty (2021) underscores that the integration of secure digital platforms, robust IT infrastructure, and data analytics tools directly contributes to higher audit quality and improved stakeholder satisfaction. These technologies enable auditors to collect, analyse, and communicate information more effectively, even in decentralised or geographically dispersed contexts.

Equally vital is stakeholder engagement, a theme echoed by both The IIA (2022) and ACCA (2021). These sources highlight that transparent, structured communication, particularly through pre-audit briefings, ongoing updates, and post-audit debriefings, is essential for maintaining trust in the audit process. In remote settings, where informal interactions are limited, intentional communication strategies play a critical role in preserving stakeholder confidence and collaboration.

The framework also builds on the principle of risk-based planning, a best practice promoted by ISACA (2021). Their research stresses the importance of using risk analytics and heat maps to prioritise audit resources, an especially valuable strategy when coordinating distributed or hybrid audit teams. This data-driven approach ensures that audits remain focused on high-impact areas, thereby improving efficiency and relevance.

Lastly, management involvement is a consistently recurring theme in both scholarly and practitioner literature. Studies by Deloitte (2022) and KPMG (2021) confirm that when senior leadership is actively engaged in audit planning, evidence sharing, and follow-up, audits are not only completed more efficiently but are also more likely to be accepted and acted upon. This leadership engagement helps bridge gaps between audit teams and operational departments, reinforcing the strategic value of internal audit.

Incorporating these evidence-based insights ensures that the proposed remote audit framework is not merely theoretical but is validated against real-world practices and challenges. By aligning with current academic research and industry standards, the framework offers a robust, adaptable model for organisations seeking to strengthen their internal audit functions in a digital-first world.

5.10.4 Real-world context: Post-COVID remote audit transformation

The framework is validated by empirical research and post-COVID-19 real-world experiences. It incorporates key lessons learned during the global shift to remote operations, such as the importance of digital readiness, leadership support, agile processes, and stakeholder transparency. These elements, now essential for effective remote auditing, are embedded in the framework's structure, reinforcing its relevance and practical value.

The COVID-19 pandemic acted as a catalyst for remote auditing. Organisations that successfully transitioned to remote audits did so by integrating the very components emphasised in this framework, as well as agile processes, strong communication, digital platforms, and leadership support (KPMG, 2021). This real-world shift reinforces the relevance and timeliness of the proposed model.

This framework reflects lessons learned during this period, emphasising:

- The importance of digital maturity and flexible infrastructure.
- The need for hybrid models to balance physical verification with virtual efficiency.
- A greater focus on agility, real-time monitoring, and continuous stakeholder feedback.

These global shifts validate the design and direction of the proposed framework, reinforcing its relevance in both crisis and post-crisis audit environments.

Grounded in well-established theories, validated by professional standards, and reinforced by empirical evidence, the framework offers a future-ready, research-informed model for remote internal auditing, as further detailed in the next section.

5.10.5 A research-informed, future-ready framework

The research-informed, future-ready framework supports not only compliance and quality but also resilience, stakeholder trust, and strategic alignment, critical requirements for the evolving role of internal audit in the digital age.

By combining academic theory and professional standards with real-world audit experience, the framework offers a balanced, evidence-based model for driving excellence in remote internal auditing. It is designed not only to improve current audit practices but also to evolve with emerging risks, technologies, and stakeholder expectations, making internal audit more resilient, transparent, and strategically aligned.

Although this study offers meaningful insights into the effectiveness of remote internal auditing, it is essential to consider its limitations to contextualise the findings appropriately. The next section acknowledges the limitations of the study.

5.11 Limitations of the study

Acknowledging these constraints not only ensures a balanced interpretation of the results but also highlights areas for future research. First, the sample was limited to a specific geographic and organisational context, which may constrain the generalisability of the findings to other regions, sectors, or institutional environments. Second, the study relied primarily on quantitative data collected through structured questionnaires. Although this method is effective for identifying trends and correlations, it may not fully capture the depth of participants' experiences or the complexity of organisational dynamics. Third, the cross-sectional nature of the research offered only a snapshot of stakeholder perceptions and practices at a specific point in time, potentially overlooking evolving developments or the long-term impacts of remote auditing.

As important as acknowledging the limitations of this study is, so too is the consideration of directions for future research. While the current study offers valuable insights into the practice of remote internal auditing within selected South African entities, it also opens several avenues for further exploration. The next section proposes further studies.

5.12 Further studies

To address the limitations identified in this study, future research should consider several key directions. First, expanding the research scope beyond a single geographic and organisational context would enhance the generalisability of the findings. Comparative studies across diverse regions, industries, and organisational types, both public and private, could offer broader insights into the adoption and effectiveness of remote internal auditing across varied institutional landscapes.

Second, the exclusive reliance on structured quantitative questionnaires limited the ability to capture the depth and complexity of stakeholder experiences. Future studies should incorporate qualitative research methods, such as interviews, case studies, or focus groups, to gain richer, more nuanced insights into stakeholder perceptions, organisational culture, and audit process dynamics. A mixed-methods approach would be particularly valuable, as it allows for data triangulation and fosters a more holistic understanding of remote audit practices and their real-world implications.

Third, the cross-sectional design of this study captured stakeholder perceptions at a single point in time, which may not reflect evolving attitudes, technological developments, or long-term outcomes. Long-term or sequential studies are recommended to explore how perceptions and practices change over time, particularly as organisations continue to adapt to remote work environments and digital audit tools. Such studies would help identify trends in the maturity of remote auditing implementation and assess its sustained effectiveness in dynamic contexts.

In addition, this study revealed mixed views regarding the role of IT in remote auditing. While the majority of respondents did not perceive IT as a barrier, a notable portion expressed concerns. Correlation analysis revealed weak and statistically insignificant relationships between IT, audit effectiveness, and stakeholder support. Furthermore, a high standard deviation in IT-related responses indicates substantial variability in user experiences, likely shaped by differences in digital literacy, infrastructure availability, and cybersecurity awareness.

These findings highlight the need for further investigation into the factors contributing to such disparities. Future studies could explore how varying levels of technological readiness and user confidence influence perceptions of audit quality and outcomes. Research should also assess the

impact of targeted digital training and the adoption of standardised digital platforms on enhancing remote audit performance and stakeholder satisfaction.

In summary, future research should adopt more diverse methodological approaches and broaden its analytical scope to deepen the understanding of the contextual, technological, and perceptual dimensions that influence the success and sustainability of remote internal audits.

Although further research is encouraged, this study has made significant contributions to the practice of remote internal auditing. It has provided a structured framework, supported by empirical evidence, that addresses the critical factors necessary for success in remote audit environments, such as technological readiness, effective communication, stakeholder engagement, and management support. By identifying practical strategies and theoretical insights, the study lays a strong foundation for both practitioners seeking to enhance audit performance and scholars aiming to explore this evolving field further. The next section explores these contributions in greater detail.

5.13 Contribution of the study

As organisations adapt to increasingly digital and decentralised operating environments, the internal audit function must evolve in parallel. This study addresses a critical gap in both theory and practice by exploring how remote internal auditing can be strategically enhanced to meet emerging organisational demands. The findings contribute not only to practical improvements in audit operations but also to the academic discourse surrounding internal audit effectiveness in remote and hybrid settings.

This section outlines the key contributions of the research across four dimensions: practical application, scientific advancement, empirical validation, and theoretical development. It highlights how the enhanced remote audit framework, developed through this study, serves as both a roadmap for organisations seeking to strengthen their audit capabilities and a foundation for further academic inquiry.

By identifying and analysing the factors that influence remote audit success, such as digital infrastructure, communication strategies, stakeholder perceptions, objectivity, and management support, this study offers actionable insights and empirical evidence that can guide the future of internal auditing. It also introduces a structured framework grounded in contemporary theory, designed to support sustainable audit transformation in the digital era.

The following subsections detail these contributions, emphasising how this research bridges the gap between theory and practice and advances understanding in a field that is rapidly gaining strategic importance.

5.13.1.1 Contribution to practice

Practically, this research provides actionable insights for organisations aiming to enhance their remote internal audit processes. It emphasises the need for robust ICT infrastructure, effective communication strategies, and active management support to ensure the success of remote audits. A key practical insight is the affirmation that remote auditing, when designed and implemented with intention, can preserve and even enhance auditor objectivity, an essential element of audit credibility.

The study advocates for embedding objectivity safeguards into remote methodologies through mechanisms such as clear independence protocols, structured communication procedures, and third-party platforms for evidence review.

Additionally, it calls for the integration of remote audit enhancements into quality assessment programmes and the standardisation of remote audit protocols to improve consistency and effectiveness. By adopting these recommendations, organisations can strengthen their audit functions, improve stakeholder engagement, and enhance the overall quality and impartiality of their audit processes.

5.13.1.2 Contribution to science

From a scientific perspective, this study contributes to the growing body of knowledge on remote internal auditing by providing empirical evidence on its effectiveness and identifying factors that influence its success. It offers a comprehensive analysis of the challenges and opportunities associated with remote audits, contributing to the theoretical discourse on internal auditing. Crucially, the research expands the academic conversation around audit objectivity in remote settings, an area previously underexplored, by demonstrating that independence and professional scepticism can be maintained through deliberate design of audit protocols and oversight mechanisms.

The study introduces a framework tailored for remote auditing contexts, incorporating theoretical constructs that support objectivity, transparency, and professional ethics. This framework provides a valuable tool for future research and practical applications, laying the groundwork for more refined audit methodologies in remote and hybrid environments.

5.13.1.3 Empirical evidence and knowledge contribution

This study provides robust empirical evidence demonstrating that remote internal auditing can be highly effective, particularly when supported by strong management involvement, effective communication, reliable technological infrastructure, and safeguards for maintaining auditor objectivity. These findings align with recent research suggesting that, when properly implemented,

remote auditing not only enhances audit efficiency but also upholds key professional standards, including independence and neutrality.

In addition to validating the effectiveness of remote audits, the study makes a significant contribution to the broader body of knowledge by identifying key success factors that shape positive audit outcomes. It highlights the critical role of stakeholder perceptions, which are strengthened through early engagement, transparent communication, and alignment with organisational goals. These elements facilitate timely access to information, foster support for audit findings, and promote the implementation of recommendations, ultimately reinforcing the legitimacy and strategic impact of the internal audit function.

In addition the findings of this study have important implications for internal audit functions. Theoretically, they contribute to the understanding of mechanisms (communication effectiveness) and boundary conditions (management support, ICT) in audit effectiveness. Practically, they guide organisations on how to enhance remote auditing processes to ensure stakeholder needs are met and internal control objectives are achieved.

Furthermore, the research emphasises the potential of hybrid audit models, real-time analytics, and structured audit trails as tools to bridge perception gaps and bolster auditor objectivity in remote environments. Together, these insights contribute to a more nuanced and evidence-based understanding of how internal auditing can remain effective, credible, and impartial in a rapidly evolving business landscape.

The next section presents the conclusion of the study, offering a comprehensive summary of the findings on the effectiveness of remote internal auditing.

5.14 Overall conclusion: The effectiveness of remote internal auditing

This study concludes that remote internal auditing is a highly effective, credible, and objective approach, particularly when supported by strong management involvement, effective communication, and reliable technological infrastructure. Across stakeholder perceptions, audit quality, communication, management support, and objectivity, the findings consistently show that remote auditing aligns with evolving organisational needs.

Objectivity in remote audits was reinforced by structured digital evidence collection and independent review protocols. The use of continuous monitoring, clear audit trails, and digital documentation helps uphold unbiased professional judgments. Hybrid audit models and organisational independence further safeguard objectivity by separating audit execution from performance evaluation.

Stakeholders generally perceived remote internal auditing as beneficial, praising its ability to provide timely assurance, support risk identification, and enhance decision-making. Respondents noted improvements in efficiency, flexibility, and real-time collaboration, positioning remote auditing as a viable long-term strategy. Some, however, expressed mixed views about its comparative effectiveness compared to traditional on-site audits, especially in complex environments where face-to-face interaction remains valued. These insights support a growing preference for hybrid audit models, which blend digital and in-person strengths.

The research underscores that the success of remote auditing depends not just on technical systems but also on perceptions of effectiveness, trust, impact, and objectivity. Stakeholder support strongly correlated with perceived audit quality, reinforcing the need to align audit practices with stakeholder expectations and visibly demonstrate unbiased outcomes.

Regarding audit quality, remote audits generally met professional standards in planning, execution, and quality assurance. Strong positive correlations among key quality indicators confirm the importance of integrated quality management, incorporating QAIPs, reviews, and performance evaluations. Nevertheless, persistent challenges remain: ICT readiness, scope limitations, and perceived gaps between remote and on-site audit credibility need to be addressed to reinforce long-term trust and objectivity.

Communication emerged as a strategic pillar: digital platforms like Microsoft Teams and cloud systems yielded high satisfaction regarding clarity and timeliness. Statistical evidence highlights a strong link between early, clear communication and effective audit execution. Yet, follow-up communication and consistent tracking of recommendations need improvement. A flexible, context-driven communication strategy, reinforced by protocols and training, is essential for maintaining impact.

Management support was another critical enabler. Respondents identified leadership involvement in planning, timely access to digital documentation, and responsiveness to audit outcomes as strengths. Spearman correlation analysis revealed a strong relationship between management availability and the successful implementation of recommendations. Still, inconsistencies in evidence submission and follow-through highlight the need for enhanced accountability mechanisms and structured leadership support to maintain objectivity.

Overall, the shift to remote internal auditing has been largely successful. To ensure sustainability, credibility, and continued value, internal audit functions should address limitations through targeted investments in:

- Technology – secure, scalable, audit-capable infrastructure.

- Processes – structured frameworks supporting objectivity and quality.
- Stakeholder engagement – ensuring trust, transparency, and alignment.

Strengthening communication, reinforcing management involvement, and standardising quality assurance and objectivity protocols will be crucial for maintaining the audit function's role as a trusted advisor and governance partner.

Overall, the transition to remote internal auditing has been largely successful. Yet, to ensure its long-term sustainability and continued value, internal audit functions must address existing limitations through targeted investments in technology, process optimisation, and continuous stakeholder engagement. Strengthening communication, reinforcing management involvement, and standardising quality assurance practices will be crucial to maintaining the audit function's role as a trusted advisor and governance partner.

In conclusion, remote internal auditing is not just a response to operational necessity; it represents a forward-looking, objective model that, when strategically supported, offers a sustainable alternative to traditional practices. With robust digital infrastructure, effective communication, transparent processes, strong stakeholder alignment and formal support mechanisms, remote internal audits can continue to deliver credible, high-quality assurance that fulfils the evolving demands of a digitally driven governance environment.

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ANNEXURE A: RESEARCH QUESTIONNAIRE

The personal information will be collected, used, stored, deleted and handled in accordance with the Protection of Personal Information Act, 2023 (POPI Act), which protects the personal information of individuals and organisations in South Africa.

SECTION A: (Stakeholders perception)

Category of Respondents: Category of Respondents: Chief Executive Officer; Chief Financial Officer; Management, Audit Committee Members, External Auditors

The statements or questions should be answered according to a Likert scale measuring 1 to 5 as follows:

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neither agree nor disagree (Neutral)
- 4 – Agree
- 5 – Strongly agree

State your opinion in the applicable box by marking with an X.

No.	The effectiveness of internal auditors	Scales				
		5	4	3	2	1
1.	Remote internal audit provides stakeholders with adequate and timely assurance to make informed decisions.					
2.	Remote internal audit is more effective than on-site internal audit.					
3.	Remote internal audit adds value to the organisation.					
4.	Stakeholders support remote auditing.					
5.	Internal audit provides ongoing advice on whether risks (including emerging risks) are identified within the business and effectively mitigated.					
6.	IT does not negatively impact remote internal audits.					

1. Please provide further comments on any of the above (1 to 5)

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2. Are there remote internal audit activities that internal audit should stop performing?

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3. How can internal audit improve its remote audit services to the audit committee, management, and the organisation as a whole?

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4. State other factors in your opinion you think can make internal audit unit effective when performing remote audits.

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5. What are the main challenges faced by internal auditors in remote auditing?

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6. What are the major advantages of remote internal auditing?

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7. What makes remote internal audit successful/efficient? (Technology, digital analysis, communication?)

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8. What makes remote internal audit unsuccessful/inefficient? (Technology, digital analysis, communication?)

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9. How was the transition to remote internal audit? To what extent did the COVID-19 pandemic influence internal audit?

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10. What do you prefer traditional face to face internal audits or remote internal audits and why?

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11. How can risk management be improved in the business?

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12. What influence does Information Technology have on the effectiveness of remote internal auditing?

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SECTION B (Management Support)

Category of Respondents: Chief Internal Auditor and Internal Auditors

The statements or questions should be answered according to a Likert scale measuring 1 to 5 as follows:

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neither agree nor disagree (Neutral)
- 4 – Agree
- 5 – Strongly agree

State your opinion in the applicable box by marking with an X.

No.	The effectiveness of internal auditors	Scales				
		5	4	3	2	1
1.	Management submits sufficient and reliable digital evidence in a timely manner during remote internal audits to prevent limitation of scope.					
2.	Management does not fully support remote internal audits and does not provide the internal audit unit with the expected level of encouragement.					
3.	The internal audit unit successfully engages top management, and top management focuses on the issues identified by the internal audit unit.					
4.	Management and staff are readily available for online meetings to discuss the audit scope, processes, and findings.					
5.	Departments actively participate remotely in the preparation of both the internal audit plan and the three-year rolling plan.					

1. Please provide further comments on any of the above (1 to 5)

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2. What influence does Information Technology have on the effectiveness of remote internal auditing?

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SECTION C: (Quality)

Category of Respondents: Chief Executive Officer; Chief Financial Officer; Audit and Risk Committee Members; Management

The statements or questions should be answered according to a Likert scale measuring 1 to 5 as follows:

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neither agree nor disagree (Neutral)
- 4 – Agree
- 5 – Strongly agree

State your opinion in the applicable box by marking with an X.

No.	The effectiveness of internal auditors	Scales				
		5	4	3	2	1
1.	Remote internal audits are properly planned, executed, supervised, and reviewed.					
2.	Remote internal audits are conducted in conformance with the international standard for professional practice of internal auditing.					
3.	The ICT infrastructure is adequate to support remote internal audit activities, ensuring the effectiveness and efficiency of the internal audit process.					
4.	The scope and depth of a remote internal audit are negatively affected by procedures that cannot be conducted remotely.					
5.	Remote internal audits are more effective than on-site audits.					
6.	Internal audit unit has incorporated improvements in remote internal auditing into the QAIP.					
7.	The quality assurance review report by external service providers is positive regarding the conduct of remote audits.					
8.	Internal audit conducts annual internal quality assurance reviews to ensure remote internal audits comply with established standards.					
9.	Scope limitations arise as certain internal audit procedures cannot be performed, leading to uncovered risks.					
10.	Access to data and its quality enable the effective conduct of remote internal audits.					

1. Please provide further comments on any of the above (1 to 9)

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2. What influence does Information Technology have on the effectiveness of remote internal auditing?

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SECTION D: (Communications)

Category of Respondents: Management

The statements or questions should be answered according to a Likert scale measuring 1 to 5 as follows:

- 1 – Strongly disagree
- 2 – Disagree
- 3 – Neither agree nor disagree (Neutral)
- 4 – Agree
- 5 - Strongly agree

State your opinion in the applicable box by marking with an X.

No.	The effectiveness of internal auditors	Scales				
		5	4	3	2	1
1.	The timelines, scope, and objectives of the internal audit are clearly communicated online before the commencement of the remote audit.					
2.	Remote internal audit reports are clear, accurate, and communicated to management in a timely manner.					
3.	Face-to-face interactions cater more for follow-up questions compared to computer-mediated communication.					
4.	ICT enables auditors and auditees to communicate remotely without significant server or network downtime.					
5.	Internal audit function remote reports are followed up in a timely manner, and those with insufficient or no management response are appropriately documented and reported.					

1. Please provide further comments on any of the above (1 to 7)

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2. What influence does Information Technology have on the effectiveness of remote internal auditing?

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