

The impact of applying internal auditing standards on banking risk management during crises: a field study on banks operating in Palestine

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Received 10 November 2024

Revised 10 February 2025

10 April 2025

Accepted 12 April 2025

Abstract

Purpose – This study aims to examine the impact of the 2017 Institute of Internal Auditors (IIA) Standards on risk management within Palestinian banks, a sector operating amidst persistent economic instability and conflict since 2020. Focusing on the “Attributes” and “Performance” standards, the research investigates their influence on risk management practices in this challenging environment to understand their effectiveness in mitigating and managing risks.

Design/methodology/approach – Using an explanatory sequential mixed-methods design, this research investigates the influence of IIA Standards on risk management in Palestinian banks. A purposive sample of 160 professionals from internal audit, risk management and related committees participated in the study. Quantitative data were collected through a questionnaire, followed by semistructured interviews with selected participants to provide deeper insights and interpret the quantitative findings. Multiple linear regression analysis was used to test the study's hypotheses, specifically examining the relationship between the implementation of IIA “Attributes” and “Performance” standards and risk management effectiveness.

Findings – This study reveals a significant positive correlation between adherence to IIA Standards and enhanced risk management effectiveness in Palestinian banks during periods of crisis. Adherence to the “Attributes” and “Performance” standards strengthens the internal audit function's ability to proactively manage risk. Notably, the findings highlight the crucial role of “Performance” standards in enabling risk-based

The authors would like to extend their most sincere thanks to the boards of directors of Palestinian banks, the Palestinian Monetary Authority and professionals in internal audit and risk management departments for their invaluable support and collaboration during this research, which has been instrumental in its successful completion. The authors also extend their sincere thanks to all professors at Kairouan University for their insightful comments regarding earlier drafts, and they would like to express their appreciation for the guidance of Professor Anissa Loussir Ben Hassine.



auditing, facilitating proactive risk identification and mitigation, and thereby mitigating the negative impacts of crises on financial stability and organizational performance.

Research limitations/implications – This study is subject to several methodological limitations, including its cross-sectional design restricted to Palestine, which limits the generalizability of findings across time and geographic contexts. The selection of variables was based on a specific body of literature, and the sensitive nature of certain questions may have influenced participant responses. The study did not explicitly isolate the impact of the COVID-19 pandemic, despite being conducted in a crisis-affected environment. Furthermore, it relied on the 2017 internal auditing standards without incorporating the 2024 updates, highlighting the need for future research to assess the implications of the revised framework on audit practices and risk management.

Practical implications – This study underscores the vital role of adherence to internal auditing standards in promoting the long-term sustainability of banking operations, particularly during times of crisis. Compliance is not simply a matter of regulatory adherence but a strategic investment in robust risk management capabilities. By facilitating improved risk identification, measurement, monitoring and mitigation, adherence strengthens banks' ability to maintain financial stability, foster transparency and accountability and achieve operational efficiency, ultimately benefiting stakeholders across the board.

Originality/value – This research makes a novel contribution to the existing literature by examining the impact of implementing IIA Standards on risk management within Palestinian banks, a context often overlooked in prior studies. The study's findings, derived from an analysis of the challenges within Palestine's volatile political and economic landscape, provide valuable insights into the effectiveness of these standards in mitigating risks within other similar crisis-prone environments.

Keywords Internal audit standards, Attribute standards, Performance standards, Risk management, Strategy papers, Financial inclusion, Banking sector, Crisis periods, and the Palestinian context

Paper type Research paper

1. Introduction

The banking sector, driven by rapid technological advancements and the emergence of innovative products, faces an evolving landscape of risks. While banks strive to maximize profits, they must simultaneously prioritize identifying, understanding and mitigating the risks associated with these new products. Technological advancements have heightened the vulnerability of the banking industry to a range of threats, including credit, operational, market and cyber risks. Effective risk management practices are essential for maintaining stability and resilience in this dynamic environment (Obaid, 2020).

The significance of risk management extends beyond individual institutions. Boards of directors, tasked with overseeing the identification, assessment, management and monitoring of risks, play a crucial role in ensuring the financial strength of banks, which is vital for promoting economic growth and financial stability (Abdel Razeq, 2021; Abualhassan *et al.*, 2024). The global financial crisis starkly illustrated the consequences of weak risk management, highlighting the need for robust practices as a first line of defense for banks (Obaid, 2020). Within this context, corporate governance mechanisms, including internal auditing, serve as critical safeguards for effective risk management. Internal auditing, through its consulting and assurance activities, plays a vital role in enhancing risk management processes and providing assurance about the reliability and effectiveness of information and internal control systems (Nour *et al.*, 2024a, 2024b). This aligns with the International Standards for the Professional Practice of Internal Auditing, which emphasize the internal audit function's responsibility to assess and improve the effectiveness of risk management processes (Standard 2120). Oversight bodies widely recognize the significant contribution of internal auditing to the effectiveness of internal controls, risk management and governance frameworks within the banking sector. Although operating under distinct mandates, both internal auditors and regulators share the responsibility for risk identification and assessment; however, their methodologies diverge considerably. Internal auditors

primarily focus on operational and compliance risks specific to the individual banking organization. Leveraging their unrestricted access to institutional systems and records, they provide timely observations and actionable recommendations to the audit committee and the board of directors. These independent assessments complement senior management's oversight function and promote the continuous enhancement of internal control systems ([Basel Committee on Banking Supervision, 2012](#)).

In contrast, regulatory agencies adopt a broader, macro-prudential supervisory perspective. Their core responsibility to identify, assess and mitigate risks stems from their mandate to safeguard the stability of the entire banking system. Regulators actively monitor systemic risks – including liquidity, market, credit and operational risks – across multiple institutions and the financial system at large. Furthermore, they evaluate the adequacy of banks' risk management frameworks and internal audit functions through a combination of off-site analysis, on-site examinations and regulatory stress testing. Regulatory bodies also scrutinize internal audit reports to ascertain compliance with international standards, such as the Basel guidelines, as well as local regulatory requirements. Subsequently, they perform external validations of risk control processes and may issue directives designed to counteract identified weaknesses within the banking sector ([PMA, 2017](#)).

Consequently, internal auditors offer a bottom-up perspective grounded in detailed institutional operations, while regulatory bodies provide a top-down supervisory view focused on systemic stability. These roles are inherently complementary, fostering a synergistic relationship that collectively enhances the resilience, integrity and overall soundness of the banking system.

Palestinian banks operate within an instable political and economic environment. This complex landscape, marked by domestic and international pressures, significantly influences lending and investment activities. The concentrated nature of banking operations amplifies these vulnerabilities, making Palestinian banks particularly susceptible to external shocks that can impact their financial performance. To mitigate these challenges, Palestinian banks have established specialized risk management committees in accordance with the directives of the Palestinian Monetary Authority (PMA). These committees aim to enhance financial performance and maintain capital strength. Internal audit departments play a vital role in evaluating and improving the effectiveness of risk management and governance, contributing to the overall efficiency and effectiveness of banking operations ([PMA, 2022](#); [Nour et al., 2024a, 2024b](#); [Basalat et al., 2023](#)).

This study examines the impact of implementing internal auditing standards on risk management practices within Palestinian banks during periods of crisis, particularly focusing on the wars and global crises that have unfolded since 2020. The study investigates the influence of both "Attributes" and "Performance" standards, aiming to determine the relative significance of each dimension in enhancing risk management effectiveness. A mixed-methods approach, incorporating both quantitative and qualitative data, is used to provide a comprehensive understanding of how internal auditing standards contribute to improved banking risk management performance during crisis periods. The study used a sequential explanatory design, beginning with a structured questionnaire distributed to a purposive sample of 160 respondents from internal audit and risk management departments, as well as members of the audit and risk management committees in Palestinian banks. The findings are then further enriched through follow-up interviews with participants, providing a deeper understanding of the relationships identified through the questionnaire.

The research yielded significant insights into the banking sector, demonstrating a positive impact of both attribute and performance standards on risk management practices within Palestinian banks during periods of crisis. The study revealed that adherence to these

standards enhances the effectiveness of internal auditors in forecasting banking risks, assisting managers in developing risk matrices, and implementing strategies to mitigate their potential consequences. Notably, the researchers discovered that performance standards exhibited a greater influence on risk management in Palestinian banks during crises compared to attribute standards.

This study makes several significant contributions to the field of banking and risk management, particularly within the context of Palestine. It is the first to comprehensively examine the impact of applying internal auditing standards on risk management within Palestinian banks. The study uses a mixed-methods approach, integrating both quantitative and qualitative methodologies to provide a holistic understanding of the research topic. Furthermore, it delves into the specific challenges faced by the Palestinian banking sector, which is characterized by political and economic instability. The study underscores the critical role of internal auditing in risk management for Palestinian banks, particularly during periods of crisis, such as the global conflicts that have emerged since 2020. These events have significantly impacted the banking sector, highlighting the need for robust risk management practices. The study offers valuable feedback for bank boards, providing insights that can contribute to enhancing the performance of internal audit departments and increasing their technical capabilities, ultimately leading to more effective risk management and reduced losses. This research also advocates for the improvement of internal control systems to keep pace with evolving economic and technological landscapes. It emphasizes the need to effectively manage a diverse range of risks, including digital risks arising from the ongoing digital transformation. The study encourages the adoption of best practices and international standards in auditing and risk management, offering recommendations to policymakers and decision-makers for developing these areas and enhancing their effectiveness in addressing the unique economic challenges faced by Palestine.

This study is motivated by the imperative to enhance internal auditing performance in banks, recognizing the persistent challenges posed by rapid technological advancements and complex regulatory environments (Al-Rubaidi and Al-Diya, 2022; Zainal Abidin, 2021). While the relationship between internal auditing standards and risk management has been explored in prior studies (Assas and Hour, 2020; Radwan, 2012), a significant research gap persists regarding the specific influence of attributes and performance standards on risk management efficacy, particularly within developing economies such as Palestine. Accordingly, this study aims to address this gap by examining the impact of attributes and performance standards on risk management in Palestinian banks. These findings are anticipated to provide practical guidance for internal auditors and regulatory bodies, ultimately fostering improved risk management practices and promoting greater financial stability.

This paper is structured in four sections. Section 1 provides a review of the relevant literature and develops the research hypotheses. Section 2 outlines the methodology used. Section 3 presents the results of the analysis. Finally, Section 4 concludes the paper, summarizing the key findings and implications.

2. Literature review

Before delving into previous research and formulating hypotheses, it is crucial to establish a clear understanding of the study's key terms.

2.1 Banking risks management

Banking risks encompass the potential for financial or reputational losses arising from activities characterized by irregularity and fluctuating returns, driven by uncertainties

regarding their outcomes. To effectively manage these inherent risks and transform them into opportunities, banks implement risk management frameworks. It provides a comprehensive and standardized approach to risk management, encompassing oversight measures and analytical models to ensure a holistic approach. This framework begins with the identification of risks associated with each banking product or service, using tools such as risk self-assessment and categorization to identify gaps and implement corrective actions. Once identified, risks are measured based on their magnitude, duration and likelihood of occurrence. Banks then implement strategies to avoid or minimize potential losses, which may involve refraining from entering certain markets or imposing activity restrictions. The framework also includes a robust monitoring phase, using accurate information systems to track changes in risk exposure levels and ensure effective control throughout the process (Lam, 2014; BCBS, 2006; Ismail, 2021; Jalal *et al.*, 2023).

2.2 *Internal audit standards issued by the Institute of Internal Auditors*

Internal auditing plays a crucial role in enhancing the quality and effectiveness of organizational operations and activities. To effectively fulfill their responsibilities, internal auditors must possess a distinct set of qualities, characteristics and skills, commonly known as attribute standards. These standards, developed by the Institute of Internal Auditors (IIA), outline the essential personal and professional attributes required of internal auditors (Sawyer *et al.*, 2003). Attribute standards are categorized into four key areas: purpose, authority and responsibility; independence and objectivity; and proficiency and due professional care, along with the Quality Assurance and Improvement Program. These standards, numbered from 1000 to 1300, establish the fundamental requirements for institutions and auditors engaged in internal audit functions [The Institute of Internal Auditors (IIA), 2017].

Complementing the attribute standards are the performance standards for internal auditing, which form an integral part of the International Standards for the Professional Practice of Internal Auditing. These standards define the nature of internal audit activities and serve as quality benchmarks to evaluate internal audit practices. Their purpose is to provide a comprehensive framework for guiding and enhancing a wide range of value-added internal audit services, ultimately contributing to improved institutional operations and practices (Al-Rumahi, 2017). Performance standards are structured into seven categories: managing the internal audit activity, nature of work, engagement planning, engagement execution, communicating results, monitoring progress and communicating the acceptance of risk. These standards, numbered from 2000 to 2600, aim to delineate the scope of internal audit activities and offer qualitative metrics against which audit performance can be measured [The Institute of Internal Auditors (IIA), 2017].

2.3 *Previous studies and hypothesis development*

Over the past years, numerous studies and research have explored the topic of internal audit standards at local, regional and international levels, underscoring the significance of their implementation across institutions. These studies draw upon various theoretical frameworks, primarily agency theory, stakeholder theory and signaling theory. To illuminate the importance of internal audit standards, agency theory posits that the application of effective internal audit standards can mitigate conflicts of interest between shareholders (principals) and management (agents) by providing a control framework that guides management toward making decisions aligned with shareholders' best interests. This, in turn, enhances banking governance, particularly during crises (Jensen and Meckling, 1976). Stakeholder theory, on the other hand, emphasizes the importance of considering the interests of all stakeholders

associated with the bank, including employees, customers and the community. Internal auditing, within this framework, promotes social responsibility and transparency, fostering trust and contributing to a balanced approach that enhances the bank's sustainability during crises (Freeman, 1984). Signaling theory highlights the role of internal audit standards as a tool for conveying positive signals to stakeholders. Adherence to these standards demonstrates a bank's commitment to high levels of control and efficiency in risk management, thereby building stakeholder confidence. This adherence also reduces the impact of information asymmetry between bank management and stakeholders, a crucial factor during crises (Myers and Majluf, 1984).

2.3.1 Attribute standards. This study is underpinned by a theoretical framework that integrates agency, stakeholder and signaling theories to explain the influence of internal audit attribute standards on risk management within banks operating in Palestine. Agency theory posits that the internal audit function acts as a control mechanism, mitigating agency risks between management and shareholders and thereby enhancing the effectiveness of risk management practices (Ninson and Tetteh, 2022; Mohammad *et al.*, 2024). Conversely, stakeholder theory suggests that improvements in risk management benefit a broad range of stakeholders, including depositors, clients and regulatory bodies (Freeman, 1984). Signaling theory provides an interpretive lens through which to understand how internal audit activities send positive signals concerning the quality of risk management to the market, consequently bolstering the confidence of investors and depositors (Myers and Majluf, 1984). This theoretical framework is further supported by empirical evidence from prior research.

Previous studies have illuminated the multifaceted effects of attribute standards on internal auditing, particularly within the banking sector. A significant body of research points to the positive influence of internal auditor independence on audit quality and risk governance. Tanbour *et al.* (2024a) found a strong positive correlation between independence and enhanced IT governance in Palestinian insurance companies. Conversely, Samagaio and Felício (2023) demonstrated that a lack of independence can lead to lower audit quality due to external influences. Further evidence supporting the positive impact of independence comes from studies by Khan (2023) in the Bangladeshi banking sector, which identified a positive association between independence and the quality of financial reporting. Darwesh *et al.* (2023) showed that independence enhances accountability and improves institutional performance. Korankyawaa (2018) found that the independence of internal auditors positively influences the effectiveness of internal auditing, aligning with the International Standards for the Professional Practice of Internal Auditing, which mandates independence and objectivity.

Al-Anazi (2023) emphasized the significance of independence and objectivity as key drivers for effective internal control. Anugraheni *et al.* (2022) and Nagriwum and Frimpong (2023) also concluded that independence and objectivity contribute to improved audit quality and the effectiveness of internal audit departments. Hassan (2021) highlighted the role of independence in promoting professional auditing practices within Sudanese banks, while Al-Surayhi and Al-Shaibani (2021) found that internal audit independence positively impacts the evaluation of external audit risks and risk governance. The study by Alwi and Yuyetta (2020) demonstrated a significant relationship between Risk-Based Internal Audit (RBIA) and independence. They conceptualized independence as the degree to which communication and access to information are enabled across all organizational divisions or departments. The study found that such access is critical for enhancing the internal audit function and bolstering its overall effectiveness. Afzal's (2023) findings indicate that competence, objectivity, performance audit committee support and independence are vital

for improving the quality of internal auditing in Pakistani commercial banks, with a consequent positive impact on overall governance.

Regarding due professional care, [Berisha et al. \(2023\)](#) demonstrated that adherence to due care standards effectively reduces credit risks in commercial banks. [Bilal et al. \(2018\)](#) identified a positive correlation between professional care and corporate governance. [Astuty et al. \(2022\)](#), [Wahyuni et al. \(2020\)](#) and [Ardillah and Chandra \(2022\)](#) showed that due care enhances the quality of internal audits, leading to improved IT governance, a conclusion supported by [Nour and Tanbour \(2023\)](#). The influence of attribute standards on risk management and internal control is further highlighted by [Al-Rubaidi and Al-Diya \(2022\)](#), who affirmed that adhering to these standards minimizes occupational fraud. [Zainal Abidin \(2021\)](#) stressed the role of high-quality internal audits in promoting risk management disclosure. [Radwan \(2012\)](#) and [Assas and Hourri \(2020\)](#) found a positive impact of attribute standards on banking risk management. [Abdieva \(2023\)](#) highlighted the crucial role of internal auditors' skills and knowledge in managing fraud risks. [Nagriwum and Frimpong \(2023\)](#) demonstrated that the competence of internal audit staff is a key determinant of audit effectiveness. This conclusion aligns with findings from studies by [Katal and Zarafawi \(2022\)](#) and [Chang et al. \(2019\)](#), which indicated that professional competence enhances internal audit quality. The research of [Febriansyah and Oktaviana \(2023\)](#) showed that due professional care and audit evidence are critical for ensuring accurate audit opinions among auditors at the East Bandung Public Area Accounting Firm. Separately, [Baatwah, Omer, and Aljaaidi \(2022\)](#) demonstrated that outsourcing the internal audit function (IAF) to providers with deep firm-specific knowledge results in significant gains in audit efficiency, including faster financial statement releases and reduced audit costs. Based on the extensive body of research reviewed and the theoretical framework, the following hypothesis is formulated as follow:

- H1.* The application of attribute standards in internal auditing has a positive effect on risk management in banks operating in Palestine during crises.

2.3.2 Performance standards. This study uses a theoretical framework that integrates agency, stakeholder and signaling theories to examine the impact of internal audit performance standards on risk management in Palestinian banks. Agency theory posits that the internal audit function serves as a crucial control mechanism, mitigating agency conflicts between management and shareholders and thereby fostering more effective risk management ([Ninson and Tetteh, 2022](#)). By contrast, stakeholder theory contends that improved risk management benefits a diverse range of stakeholders, including depositors, clients and regulatory bodies ([Freeman, 1984](#)). Complementing these perspectives, signaling theory provides an interpretive lens, suggesting that internal audit activities act as credible signals to the market regarding the quality of risk management, consequently reinforcing investor and depositor confidence ([Nour and Momani, 2021](#)). This integrated theoretical framework is further supported by empirical research.

Previous research indicates that performance standards have a demonstrably positive impact on the effectiveness of internal auditing and risk governance. This evidence suggests that adherence to these standards enhances internal audit effectiveness, thereby positively impacting organizational risk management. [Tanbour et al. \(2024a\)](#) found that the nature of internal audit work positively impacts IT governance effectiveness in Palestinian insurance companies. [Abdul Rahman \(2024\)](#) demonstrated a positive effect of standards related to audit scope, audit tasks and internal audit management on audit quality. [Joshi and Marthandan \(2023\)](#) highlighted that risk-based planning and guidelines enhance internal audit activity effectiveness in Indian institutions, with risk-focused approaches contributing

to overall performance improvement. [Al-Anazi \(2023\)](#) observed that applying performance standards affects internal control effectiveness, with the influence ranked as follows: audit task execution, audit activity management, work nature and task planning. [Anugraheni et al. \(2022\)](#) found that risk-based audit tasks improve internal audit quality by focusing on high-risk programs and activities. Similarly, [Tien and Thanh \(2023\)](#) observed that performance standards positively impact the effectiveness of internal control systems in small and medium-sized firms.

[Berisha et al. \(2023\)](#) identified a positive relationship between the internal audit work and credit risk management in commercial banks. [Atta and Shaqra \(2023\)](#) demonstrated the statistical impact of executing audit tasks according to Standard 2300 on the performance efficiency of industrial companies listed on the Amman Stock Exchange. Meanwhile, [Al-Madhwahi \(2021\)](#) found a strong relationship between audit activity management standards and internal audit quality in Yemeni banks. Emphasizing the multifaceted benefits of internal audit, [Noviani and Trisnarningsih \(2024\)](#) highlighted its role in enhancing organizational operational efficiency via reviews of internal systems and procedures. Similarly, [Nisaka and Rochayatun \(2023\)](#) underscored the importance of internal auditing in universities for detecting and preventing fraud through the design and evaluation of internal controls. Reinforcing these findings, [Azizah et al. \(2023\)](#) reported that internal auditing assists companies in identifying control weaknesses and recommending process improvements, thereby preventing fraud and promoting transparency and integrity.

[Shaban and Barakat \(2023\)](#) indicated that most Jordanian telecommunications companies adhere to international internal audit standards, thereby enhancing internal audit functions despite partial compliance. [Zunaedi et al. \(2022\)](#) stressed the need for auditors to develop toward risk-based auditing, while [Jassem \(2022\)](#) noted that auditors perform 70% of their core roles in risk management. [Setyaningrum et al. \(2022\)](#) emphasized the importance of internal audit standards and their significant impact on auditor performance. [Hussaina and Abdulahad \(2022\)](#) found that applying performance standards contributes to the development of risk management systems and enhances audit operations' effectiveness. [Praise and Rapina \(2022\)](#) revealed that internal auditing plays a crucial role in identifying and assessing risks, thus improving risk management in organizations. [Almgrashi and Mujalli \(2024\)](#) demonstrated significant relationships between several key elements of risk management: internal auditors' role in risk management, training in risk management and management support for risk management. Furthermore, they found a significant link between effective risk management and the implementation of risk-based internal auditing.

In the banking sector, [Ahmed \(2021\)](#) found that managing and organizing the internal audit department is the most used standard, while [ElHaddad et al. \(2020\)](#) underscored the role of internal auditing in mitigating risks within Libyan higher education institutions. [Feghali and Hallak \(2019\)](#) demonstrated that performance standards enhance audit quality and support internal audit practices, while [Bilal et al. \(2018\)](#) highlighted the importance of audit work nature and audit activity management in corporate governance. [Al-Za'abi \(2019\)](#) pointed to the positive impact of audit performance standards on improving bank profitability, and [Fatah et al. \(2021\)](#) confirmed the positive correlation between financial performance and internal audit performance standards. [Alimoradi and Ahmad \(2019\)](#) underscored the clear impact of the internal audit profession on risk management within banks, noting its prominent role as an independent control and advisory function guided by strong governance principles. Supporting this, [Ali and Akter \(2023\)](#) emphasized that effective internal auditing hinges on the availability of appropriate resources – qualified personnel, adequate budgets and modern tools – to enhance risk management and optimize internal processes, while also cautioning about the potential risks to independence associated

with outsourcing. Reinforcing these ideas, [Bonrath and Eulerich \(2024\)](#) found that a strong governance framework, effective management relationships and technology significantly contribute to the effectiveness of the internal audit function in fraud prevention and detection.

Based on this extensive body of research and the theoretical framework, the following hypothesis is developed:

- H2.* The application of performance standards in internal auditing has a positive effect on risk management in banks operating in Palestine during crises.

This study aims to bridge a critical gap in risk management research within Palestinian banks by examining the practical utility of the 2017 IIA Standards in mitigating and managing risks during periods of crisis. Specifically, the research will focus on the unique geopolitical and economic environment that has prevailed since 2020, shedding light on the effectiveness of these standards in high-risk contexts. By exploring the practical application of these standards within Palestinian financial institutions during such tumultuous times, this study will contribute valuable insights to the field of risk management and offer practical recommendations for enhancing resilience in the face of future challenges.

3. Design research

This study used a mixed-method approach, integrating both quantitative and qualitative research methodologies and data, to comprehensively address the research problem, subquestions, and test the proposed hypotheses. According to [Creswell and Creswell \(2018\)](#), a mixed-method approach is a research strategy that combines quantitative and qualitative data within a single study. This approach provides a holistic understanding of the research topic by leveraging the strengths of both methodologies ([Jalabi, 2012](#)). The integration of quantitative and qualitative data in this study offers complementary insights with which quantitative data provides precise statistical insights into the relationships between variables, while qualitative data offers rich descriptions, interpretations and contextual understanding of the phenomena under investigation. Combining both methodologies helps mitigate potential biases that may arise from using only one approach, leading to a more balanced and comprehensive understanding of the research problem. The triangulation of data from both quantitative and qualitative sources strengthens the validity and reliability of the research findings, providing a more robust and defensible account of the relationships observed. By adopting this mixed-method approach, the study aimed to gain a deeper and more nuanced understanding of the impact of internal audit standards on risk management in Palestinian banks during crises.

3.1 Sample selection and data

The study's population comprised all members of audit committees, risk management committees and middle management employees in banks operating in Palestine. According to the Palestinian Banking Association data as of May 31, 2024, this population totaled 1,348 individuals.

The researchers used a nonprobability, purposive sampling method to select a total of 160 participants for the study. This sample consisted of 33 members of audit and risk management committees and 127 employees from internal audit and risk management departments in Palestinian banks. The purposive sampling approach was chosen because these individuals possess a high level of knowledge and understanding of banking operations in Palestine, making them ideal participants for the study. Their insights and perspectives

were considered crucial for accurately addressing the research questions and providing valuable data for analysis (Nour and Tanbour, 2023). To further enrich the study's findings and enhance credibility, the researchers conducted qualitative interviews with a purposive sample of 25 participants. This qualitative component aimed to provide a deeper understanding of the quantitative results, offering valuable insights and contextualization. The selection of 25 participants aligns with the recommended range of 20–30 participants for qualitative research, as suggested by Zadem (2021). Saturation was achieved at participant number 17, indicating that no new information or insights were being gathered from subsequent interviews. This ensured that the researchers collected adequate data to fully explore the research questions and achieve the study's objectives. The study relied on both primary and secondary data sources to comprehensively address the research questions. Researchers gathered information from a variety of sources, including books, academic journals, specialized reports and online databases, to provide a solid foundation of existing knowledge on internal auditing standards, risk management and the Palestinian banking sector. Primary data was collected through a structured questionnaire designed to measure the study's variables. The questionnaire used a five-point Likert scale to gauge participants' perceptions and attitudes toward internal auditing standards and its influence on risk management.

3.2 Questionnaire design

The survey instrument used in this study was developed based on established prior research and underwent a rigorous, multistage process to ensure its content validity and reliability. Initially, drafts of the questionnaire were reviewed by academic experts and practitioners specializing in auditing and risk management to gather feedback on relevance and clarity. Subsequently, a pilot test was administered to a sample of employees from the target banks to assess comprehensibility and identify potential issues in administration.

Furthermore, face validity was specifically evaluated by presenting the instrument to nine independent expert reviewers possessing both academic and practical banking backgrounds. Feedback from this stage led to refinements in the questionnaire's introduction, enhanced clarity of specific response options and the correction of minor linguistic ambiguities.

The finalized questionnaire was structured into two main sections. Section 1 collected essential demographic information from participants, providing data necessary for characterizing the respondent sample. Section 2 focused on the core research variables, comprising 54 carefully constructed items measuring the study's key constructs. This section was further divided into two subsections:

- (1) Internal auditing standards (32 items): Designed to evaluate the extent of application of internal auditing standards within the participating banks.
- (2) Risk management practices (22 items): Aimed at assessing the perceived effectiveness of risk management practices within these institutions.

All items within Section 2 used a five-point Likert scale, anchored from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). This scale was selected based on its established utility in capturing nuanced perceptions and attitudes quantitatively, thereby facilitating robust statistical analysis and the generation of reliable research findings (Saunders *et al.*, 2019).

Table 1 outlines the foundational studies and theoretical frameworks on which the questionnaires were based. This table offers a detailed analysis of the variables, their sources and number of items used for the measurement. The methodology presented in the table reflects a holistic and rigorous approach, integrating established frameworks, such as COSO 2017, supported by citations to pertinent prior literature.

Table 1. Definitions and measurements of study variables

Variables	Sources	No. of items
Internal audit standards		32
Attribute standards	(Al-Mari, 2016; Tanbour <i>et al.</i> , 2024a; Berisha <i>et al.</i> , 2023)	17
Performance standards	(Al-Mari, 2016; Abdul Rahman, 2024; Tanbour <i>et al.</i> , 2024a)	15
Risk management during crises	(Tanbour and Nour, 2024b; COSO, 2017)	22

Source(s): Authors' own work

3.3 Validity and reliability results

Table 2 presents the results of the reliability and validity assessments of the three constructs: attribute standards, performance standards and risk management. These three constructs demonstrate strong internal consistency and reliability, as evidenced by Cronbach's alpha values ranging from 0.932 to 0.961 and composite reliability scores (ρ_A and ρ_C) consistently exceeding 0.930. Furthermore, the average variance extracted (AVE) values, ranging from 0.603 to 0.639, demonstrate that the constructs exhibit good convergent validity. Collectively, these results indicate that the measures are highly reliable and precise and, therefore, suitable for use in subsequent analyses (Hair *et al.*, 2019).

3.4 Construct validity

To further ensure the validity of the research instrument, a rigorous process of item analysis was conducted to assess construct validity. This involved calculating Pearson's correlation coefficients to determine the relationship between each item in the scale and the overall scale score. Items exhibiting a correlation coefficient below 0.25 or those with a direction opposite to the overall scale score were systematically removed from the questionnaire. This process effectively eliminated items that did not align with the intended construct, strengthening the instrument's construct validity. The revised questionnaire, after removing irrelevant items, demonstrated strong construct validity, indicating that the remaining items effectively represent the constructs they are designed to measure. **Table 3** provides a detailed presentation of the item analysis results.

Table 3 demonstrates that all items within the study instrument exhibit correlation coefficients greater than 0.25 and have a positive direction. This finding provides strong evidence for the construct validity of the instrument, indicating that the items effectively measure the constructs they are intended to assess. The positive correlation coefficients suggest that the items are consistently aligned with the overall scale score, confirming their

Table 2. Reliability and validity results

Construct	Cronbach's alpha	Composite reliability (ρ_A)	Composite reliability (ρ_C)	Average variance extracted (AVE)
Attribute standards	0.932	0.938	0.942	0.621
Performance standards	0.953	0.955	0.958	0.639
Risk management during crises	0.961	0.963	0.965	0.603

Source(s): Researcher's output using Smart PLS4

Table 3. Correlation of scale items with their constructs*Independent variable: internal auditing standards*

Attribute standards

Item	1	2	3	4
Correlation	0.394**	0.438**	0.506**	0.501**
Item	5	6	7	8
Correlation	0.498**	0.508**	0.492**	0.481**
Item	9	10	11	12
Correlation	0.479**	0.375**	0.375**	0.375**
Item	13	14	15	16
Correlation	0.518**	0.432**	0.453**	0.480**
Item	17			
Correlation	0.468**			

Performance standards

Item	18	19	20	21
Correlation	0.512**	0.510**	0.515**	0.411**
Item	22	23	24	25
Correlation	0.509**	0.425**	0.518**	0.491**
Item	26	27	28	29
Correlation	0.492**	0.395**	0.500**	0.481**
Item	30	31	32	
Correlation	0.567**	0.470**	0.461**	

Dependent variable: bank risk management during crisis

Item	33	34	35	36
Correlation	0.377**	0.466**	0.368**	0.448**
Item	37	38	39	40
Correlation	0.446**	0.443**	0.49**	0.541**
Item	41	42	43	44
Correlation	0.535**	0.567**	0.518**	0.514**
Item	45	46	47	48
Correlation	0.607**	0.495**	0.355**	0.393**
Item	49	50	51	52
Correlation	0.499**	0.502**	0.502**	0.491**
Item	53	54		
Correlation	0.468**	0.386**		

Source(s): Researcher's output using SPSS,27

measurement of the same underlying construct. Notably, the fact that all items exhibit correlations exceeding the acceptable threshold of 0.25 further strengthens the construct validity of the instrument, ensuring that it accurately captures the intended dimensions of the study variables.

3.5 Normality distribution test

To ensure the appropriateness of parametric statistical tests, the normality of the data distribution was assessed using the Kolmogorov–Smirnov (K-S) test. The K-S test determines whether a sample distribution significantly deviates from a normal distribution (Hair *et al.*, 2018). Table 4 presents the results of the K-S test. As the significance value (Sig.) for all study variables is above 0.05, this indicates that the data distribution for each variable does not significantly deviate from a normal distribution. This finding supports the use of parametric statistical tests for analyzing the relationships between the study variables.

Table 4. Data normality based on the (K-S) test

Type of variables	Independent variables		Dependent variable
	Attribute standards	Performance standards	Risk management during crises
K-S	0.924	0.973	1.131
Sig	0.360	0.301	0.155

Source(s): Researcher's output using SPSS,27

3.6 Multicollinearity test

To assess the presence of multicollinearity, a common issue in multiple regression analysis, the researchers examined the tolerance values and variance inflation factor (VIF) for the independent variables. Table 5 shows that all tolerance values for the independent variables are less than 1 and greater than 0.2, while the VIF values are less than 5. These findings indicate that multicollinearity is not a significant concern in this study. As per Hair *et al.* (2018), tolerance values below 1 and above 0.2, along with VIF values below 5, suggest that the independent variables are not highly correlated with each other, allowing for a reliable multiple linear regressions analysis.

To further confirm the absence of multicollinearity among the independent variables, Pearson's correlation coefficients were calculated. This analysis aimed to assess the level of linear association between the two dimensions of internal audit standards (attribute standards, performance standards). Table 6 presents the results of the Pearson's correlation analysis. The correlation coefficients between the dimensions of internal audit standards are all below the threshold for high multicollinearity, providing additional confirmation that the independent variables are not highly correlated. Table 6 shows that the correlation coefficient observed among the independent variables is 0.746. This value is below the commonly accepted threshold of 0.80 for indicating high multicollinearity (Gujarati *et al.*, 2017).

Table 5. Multicollinearity test results

Model	Tolerance	VIF
Attribute standards	0.443	2.258
Performance standards	0.443	2.258

Source(s): Researcher's output using SPSS,27

Table 6. Pearson correlation matrix for independent variables

	Attribute standards	Performance standards
Attribute standards	1	
Performance standards	0.746**	1

Note(s): ** Pearson correlation significant at 0.01; * Pearson correlation significant at 0.05

Source(s): Researcher's output using SPSS,27

3.7 Qualitative data

The qualitative data gathered through interviews was analyzed using a thematic analysis approach. A deductive analytical pattern was applied, whereby the researchers focused on specific concepts guided by the research questions and objectives. This approach allowed for the identification of multiple themes and a deeper interpretation of the subject matter. Thematic analysis involves organizing and categorizing qualitative data into meaningful groups or themes. This process facilitates the understanding and interpretation of the data, revealing patterns, insights and key findings. The researchers manually analyzed the qualitative data without using computerized programs (Alsaleh, 2017).

We followed a series of steps, drawing inspiration from the works of Braun and Clarke (2006), Alsaleh (2017), Al Momani *et al.* (2021) and Saunders *et al.* (2019): First, we personally conducted the interviews, transcribed the recordings and repeatedly listened to and reviewed the transcripts, immersing themselves in the data to gain a deep understanding of the participants' perspectives. Second, we coded the data based on a preexisting coding framework derived from relevant theories, previous studies and the researchers' analytical insights. A total of three codes were developed to represent the key themes emerging from the data. We identified core themes directly from the research questions and objectives, ensuring that the analysis addressed the study's key areas of interest. We developed then detailed specifications for each theme, outlining its specific characteristics and demonstrating how it related to both the theoretical framework and the research questions. We reviewed the identified themes carefully to confirm their significance and ensure that they reflected meaningful patterns relevant to the study questions, objectives and theoretical framework. Finally, we presented the findings of the thematic analysis in a comprehensive report, including detailed descriptions of the identified themes and their subthemes; discussion of the themes in light of the theoretical framework and existing literature and an interpretation of the quantitative results in conjunction with the qualitative data, providing a comprehensive and integrated understanding of the research findings.

4. Empirical results

4.1 Descriptive analysis

Table 7 presents the frequency and percentage distribution of demographic characteristics collected through the first part of the questionnaire. The table provides a summary of the respondents' answers related to personal data, allowing for a better understanding of the sample's composition and characteristics.

Table 7 reveals that internal auditors constitute the largest participant group (36.5%, 58 individuals), followed by risk management employees (28.5%, 45 individuals). This emphasizes the study's focus on professionals directly engaged in internal audit and risk management within the Palestinian banking sector. The majority of participants (64.4%, 103 individuals) possess a bachelor's degree, while 35% (56 individuals) hold a master's degree or higher, signifying a high level of educational attainment. In addition, 44.4% (71 individuals) have over 15 years of experience in the banking sector, reflecting substantial practical knowledge. Another 38.8% (62 individuals) possess 5–15 years of experience, contributing to the diversity of expertise within the sample. Furthermore, 56.9% (91 individuals) hold professional certifications, indicating a commitment to professional development. However, 43.1% (69 individuals) lack specialized certifications, highlighting opportunities for further professional growth within the sector.

4.2 Quantitative data analysis

4.2.1 Descriptive statistics. To delve deeper into the study sample's perceptions regarding the study variables and their dimensions, the researchers calculated means, standard deviations, ranks and impact degrees. The degree of impact was determined according to the following formula: $\text{Length of Category} = (\text{Upper Limit of the Alternative} - \text{Lower Limit of the Alternative}) / \text{Number of Levels}$. Thus, $\{5-1\}/\{5\} = 0.80$. If the mean falls between 4.2 and 5, it is considered within the very high level of impact; if it ranges between 3.4 and less than 4.2, it falls within the high level; if it is between 2.6 and less than 3.4, it is within the medium level; if it ranges between 1.8 and less than 2.6, it is within the low level; and if it is less than 1.8, it is considered within the very low level of impact (Nour & Tanbour, 2023).

Table 8 shows that the participants in the study believe that the application of internal auditing standards has a high impact on risk management in banks operating in Palestine during crises. The mean score for the impact of attributes was 4.20, with a standard deviation of 0.487, indicating a significant impact, supported by a t -test value of 31.070 and a significance level (sig) of 0.00, reflecting a strong statistical significance at the level of ($\alpha \leq 0.05$). In addition, performance standards demonstrated a high impact with a mean score of 4.15 and a standard deviation of 0.538, with a t -test value of 26.917 and a significance level (sig) of 0.00, confirming strong statistical significance. The overall score for the impact of applying internal auditing standards was 4.17, with a standard deviation of 0.500, and a t -test value of 29.715 with a significance level (sig) of 0.00, indicating a comprehensive and high impact of these standards on risk management in banks, particularly during crises. The dependent variable (efficiency of banking risk management during crises) achieved a mean score of 4.12, with a standard deviation of 0.535, reflecting a high level of agreement from the study sample. It is noteworthy that the standard deviations for all dimensions are closely aligned, indicating minimal dispersion in the responses of the study participants toward the items in the study tool.

4.2.2 Empirical findings. Multiple linear regression analysis was used to investigate the impact of several independent variables on a single dependent variable. Table 9 presents the results of the multiple linear regression test, indicating that the application of internal auditing standards significantly affects banking risk management during crises. This is evidenced by the F -value of 40.700, which is significant at the 0.000 level of significance. The R -squared value of 0.341 suggests that the application of internal auditing standards, along with its dimensions, explains approximately 34.10% of the variation in risk management in banks operating in Palestine during crises, while the remaining 65.9% of the variations in risk management are attributed to other variables not included in the model. Furthermore, the correlation coefficient (R) of 0.584 indicates a moderate to strong positive relationship between the independent variables and banking risk management during crises.

Considering the partial analysis results regarding the effects of the independent variable dimensions (attributes and performance standards) on banking risk management during crises, Table 9 reveals that the dimension of performance standard has the most substantial impact among the internal auditing standards in risk management, with a beta coefficient of 0.322, which is statistically significant at the 0.05 level. The calculated T -value for this dimension is 3.304, with a significance level (Sig) of 0.001. The dimension of attributes ranks second in terms of its impact on banking risk management during crises, with a beta coefficient of 0.304, also statistically significant at the 0.05 level. The calculated T -value for this dimension is 3.121, with a significance level (Sig) of 0.001.

Based on the above findings, we accept the hypotheses, as there is a statistically significant effect at the 0.05 level for the application of internal auditing standards,

Table 8. Variables' description

Type of variable	Variable	Mean	Standard deviation	Impact degree	t-test value	Significance value (sig)	Rank
Independent	Attribute standards	4.20	0.487	High	31.070	0.00	1
	Performance standards	4.15	0.538	High	26.917	0.00	2
Dependent	Application for internal audit standards	4.17	0.500	High	29.715	0.00	-
	Risk management during crises	4.12	0.535	High	96.177	0.000	-
Source(s): Researcher's output using SPSS,27							

Table 9. Impact of applying internal auditing standards on banking risk management during crises

Dependent variable	Correlation coefficient (<i>R</i>)	Coefficient of determination (<i>R</i> ²)	Adjusted <i>R</i> ²	<i>F</i> -value	Sig
Bank risk management during crises	0.584	0.341	0.333	40.700	0.000
Model	Unstandardized coefficients		Standardized coefficients	<i>T</i> -value	<i>p</i> -value (sig)
	B	Standard error			
Constant	1.407	0.311		4.529	0.00
Attribute standards	0.334	0.107	0.304	3.121	0.002
Performance standards	0.326	0.099	0.322	3.304	0.001

Source(s): Researcher’s output using SPSS,27

encompassing both the attributes and performance standard, on banking risk management during crises.

4.3 Qualitative data analysis

This section presents findings derived from a thorough analysis of interview data. Using [Braun and Clarke’s \(2006\)](#) thematic analysis framework, a deductive approach was adopted to identify and analyze key themes within the interview transcripts. This systematic exploration of qualitative data provided deeper insights into the impact of internal auditing standards on bank risk management during crises.

4.3.1 *Applied internal audit standards.* The researcher posed the following question during the interviews: “What standards does the internal auditor apply in banks operating in Palestine?”

All interview participants, representing a 100% consensus, agreed that the standards applied by internal audit departments in Palestinian banks are those issued by the Institute of Internal Auditors, under the International Professional Framework for Internal Auditing. These standards embody the highest levels of quality and professionalism, ensuring that all audit processes are conducted with a high degree of integrity, objectivity and confidentiality. Auditors rely on these standards to ensure precise and effective evaluation of internal control and risk management systems, which in turn enhances trust in the banking system and improves financial operational efficiency. As a result, audit processes align with global best practices, supporting financial sustainability and transparency within Palestinian banks.

In this context, participant 1 (P1) explained that “adherence to the standards issued by the Institute of Internal Auditors enhances the credibility of audit reports and aids in identifying potential gaps in internal control systems. This commitment also contributes to improving corporate governance practices within banks.” P2 affirmed that “following the international professional framework provides clear guidance for internal auditors, making it easier for them to carry out their tasks efficiently and accurately. These standards contribute to improving transparency and accountability within financial institutions.” P3 highlighted that “relying on international standards guarantees quality, as these standards are regularly updated to reflect changes and developments in internal auditing. He emphasized the importance of continuous training for auditors to maintain a high level of competence.” P4 stated that “applying these standards enhances customer and investor confidence in banks, as it reflects the bank’s commitment to principles of integrity and transparency. This approach also helps to reduce operational risks and improve financial performance.” P5 confirmed that

“using international standards in internal auditing strengthens the bank’s ability to detect risks and fraud early, enabling prompt and effective corrective actions. Additionally, these standards ensure the unification of procedures and practices across all bank branches, which enhances the effectiveness and efficiency of audit operations.”

4.3.2 *The relationship between applying internal audit standards and risk management.*

The researcher posed the following question during interviews: “How does the application of internal audit standards affect risk management in banks operating in Palestine?”

The interview participants provided varied perspectives on the impact of applying internal audit standards on risk management. In total, 70% of participants emphasized that these standards significantly improve risk management within banks. They highlighted that adherence to the standards provides an integrated framework for identifying and assessing potential risks, aiding in making informed and well-considered decisions to mitigate these risks. Meanwhile, 30% of participants noted that the standards help unify internal audit procedures across all bank branches, facilitating systematic risk identification and tracking. They further stated that adherence to these standards enables early detection of risks, allowing the bank to take preventive measures before problems escalate.

In this context, P1 observed that “internal audit standards affect risk management in banks by improving the quality of internal audit work, ensuring clear work methodology and strategy, thus positively influencing risk management operations.” P2 added, “Internal auditors’ compliance with these standards significantly reduces risks and enhances their management, improving processes and adding value to the bank, as these standards enable auditors to work with clear visions that contribute to expected improvements and development.” P3 stated, “By adhering to standards, auditors work on sound foundations, focusing on any significant control gaps in specific activities and addressing them to limit negative impacts on the bank. This positively impacts risk management through proposing new measures and effective control mechanisms to mitigate these risks.”

P4 explained, “When adhering to standards, internal audit provides corrective and improvement recommendations to the audit committee, which the board approves, regarding identified risks.” P5 added, “To understand the effect of applying internal audit standards, we need to recognize the role of internal audit in providing reasonable, objective, and independent assurances on risk management and the executive management’s reports to the board. Thus, internal auditors’ compliance with standards means they practice according to best professional practices, directly enhancing risk management in banks.”

P6 highlighted, “The standards influence bank risk management by improving work quality and internal audit performance, as tasks are executed according to international professional standards approved by the board. This builds stakeholder confidence, reducing conflicts and enhancing trust in audit-related tasks, which reflects positively on evaluating and improving bank risk management operations.” P7 emphasized, “The internal audit report, based on internationally accepted standards, strengthens trust in its findings and positively impacts bank operations, including risk management.” P8 remarked, “Applying standards to risk management ensures that assessments and analyses are accurate and comprehensive, which helps identify potential risks before they become significant problems. Additionally, standardized and documented processes facilitate effective activity monitoring and evaluation. This documentation provides a crucial reference for risk management, identifying weaknesses and establishing a robust internal control system to detect risks early and minimize their effects.”

P9 noted, “These standards represent an accumulation of global expertise, offering the best practices for risk management when applied correctly.” P10 concluded, “Internal audit’s standardized approach allows auditors to rely on documented evidence, proving the validity

of their findings to management, unlike unaudited outcomes that may lack supporting documents.” P11 stated, “Working according to internal audit standards ensures effective, meaningful outputs; failure to comply affects internal audit outcomes and bank operations, including risk management.” P12 added, “Internal audit serves as a monitoring tool for the board over executive management. Proper compliance with standards positively reflects on the bank’s operations, procedures, and policies, with risk management benefiting the most.”

P13 pointed out, “These standards guarantee internal audit independence from senior management, ensuring a transparent perspective that positively impacts risk management, as the independent auditor’s reports are clear and candid. Sufficient resources empower auditors, directly reducing banking risks. Therefore, banks should invest in internal audit departments, as standards help close control gaps in various bank operations.” P14 emphasized, “Internal audit standards allow internal auditors to evaluate and improve risk management, with their compliance providing positive impact through shedding light on risks and bank management strategies.” P15 noted, “The standards increase report credibility by relying on international standards, enhancing confidence in audit outputs, which management uses to refine risk management policies and procedures.”

The viewpoints expressed underscore the importance of applying internal audit standards and their positive influence on risk management in banks. Participants agree that adherence to internal audit standards enhances the quality and effectiveness of bank operations through improving internal audit quality and independence, thus enabling objective and transparent risk management recommendations. Compliance with international standards bolsters stakeholder trust and reduces conflicts, as these standards facilitate precise and comprehensive risk assessments and standardized documentation, which eases activity monitoring and evaluation.

Adhering to international internal audit standards strengthens the internal control system and enables early risk detection, enhancing confidence in internal audit reports and supporting management decisions to refine policies and procedures. Interview participants emphasized that banks should invest in internal audit departments and adopt international standards to ensure effective and valuable outputs that improve risk management. Therefore, properly applying internal audit standards ensures improved banking operations and risk reduction, enhancing sustainability and efficiency in the banking sector.

4.3.3 The most important standard in risk management. The researcher posed the following question: “What is the most impactful standard on risk management in banks operating in Palestine?”

The interview participants provided varied opinions on the internal audit standards that most significantly influence the effectiveness of the risk management framework in Palestinian banks. In total, 30% of participants indicated that the standards of independence and objectivity (Standards 1100 and 1110) are the most impactful. They highlighted that maintaining the independence of the internal audit function and the objectivity of auditors are critical factors that directly enhance the accuracy and effectiveness of risk management.

Approximately 20% of participants pointed to the standards of proficiency and due professional care (Standards 1200 and 1210) as significant contributors to improved risk management efficiency. They explained that the presence of necessary knowledge and skills among auditors ensures the precise and effective execution of audit tasks, which, in turn, facilitates better identification and management of risks. Meanwhile, 25% of participants emphasized that planning and audit task performance standards (Standards 2000 and 2010) have a substantial impact, as effective audit planning and task execution contribute to the early identification and mitigation of potential risks.

Around 15% of participants stated that communication and reporting standards (Standards 2400 and 2410) play an important role in risk management, asserting that effective communication between auditors and management provides the necessary information for timely and informed decision-making. Finally, 10% of participants considered the supervision and work follow-up standards (Standards 2100 and 2120) to directly influence risk management efficiency, noting that focusing on risk assessment in banks could enhance risk management processes.

In this context, participant P10 confirmed, “The independence standards (Standard 1100) are the most impactful, as the independence of the internal audit function ensures that neither management nor any other party influences audit outcomes, thereby enhancing the objectivity and reliability of risk assessments.” Participant P11 stated, “Objectivity standards (Standard 1110) play a crucial role, as auditors must remain objective and unbiased in all audit tasks, which aids in the precise identification and evaluation of risks.” Participant P12 emphasized the importance of proficiency and due professional care standards (Standard 1210), noting that auditors must possess the skills and expertise required to identify and assess risks effectively, thus ensuring efficient risk management.

Participant P13 explained, “The planning and audit task performance standards (Standard 2000) are the most influential, as effective audit planning contributes to the early identification of potential risks and the establishment of strategies to address them.” Participant P14 affirmed, “The communication and reporting standards (Standard 2400) play a significant role, as effective communication between auditors and management provides accurate and timely information on potential risks and how to handle them.” Finally, participant P17 noted, “The policies and procedures standards (Standard 2040) have a major impact, as they ensure the existence of clear and well-defined policies and procedures for audit tasks, facilitating systematic and effective risk identification and management.”

Collectively, these standards contribute to a comprehensive and systematic approach to risk management, enhancing the quality of internal auditing and supporting effective and sustainable decision-making in banks’ risk management processes.

4.4 Discussion

This study used a mixed-methods approach, integrating quantitative and qualitative data to analyze the impact of internal audit standards implementation on bank risk management during crises.

Quantitative findings revealed a statistically significant positive correlation between attribute standards and enhanced bank risk management, though the underlying mechanisms remained unclear. To gain deeper insights, qualitative interviews were conducted with a purposive sample of internal audit professionals from Palestinian banks.

The qualitative data provided a unanimous consensus (100% of participants) that the attribute standards of internal auditing play a crucial role in crisis-related risk management. These standards ensure the internal audit function possesses the necessary characteristics and competencies to effectively assess and improve risk management practices within Palestinian banks. Moreover, they contribute to enhancing the quality and efficiency of internal audit processes, facilitating early identification and resolution of potential issues, thus improving overall bank performance.

The adherence to attribute standards reflects a commitment by internal audit departments to achieve the highest levels of performance and compliance, ultimately supporting financial sustainability in dynamic economic environments. These findings align with previous research conducted by [Al-Anzi \(2023\)](#), [Al-Rabadi and Al-Dai’a \(2022\)](#), [Zainal Abidin \(2021\)](#), [Ardillah and Chandra \(2022\)](#), [Abdieva \(2023\)](#) and [Chang et al. \(2019\)](#).

Concerning performance standards, the results indicated a statistically significant positive impact on bank risk management during crises. All participants (100%) agreed that adherence to internal audit performance standards strengthens risk management practices in Palestinian banks by ensuring effective audit processes and producing accurate, objective reports. These reports empower senior management to make informed decisions during periods of crisis. Furthermore, these standards promote risk-based auditing, proactively identifying and mitigating potential risks, thus minimizing the impact of crises on bank stability and financial performance. These findings align with studies by [Abdul Rahman \(2024\)](#), [Joshi and Marthandan \(2023\)](#), [Hussaina and Abdulahad \(2022\)](#), [Praise and Rapina \(2022\)](#), [Anugraheni et al. \(2022\)](#), [Ahmed \(2021\)](#) and [Jassem \(2022\)](#).

The study's findings demonstrate the significant influence of internal audit standards (both attribute and performance) on risk management practices within banks operating in Palestine, particularly during periods of crisis. This investigation is underpinned by a theoretical framework integrating agency theory, stakeholder theory, and signaling theory. Consistent with agency theory, the study reveals that the internal audit function serves as an effective control mechanism, mitigating agency risks between management and shareholders and thereby enhancing the overall effectiveness of risk management within these banks. Furthermore, aligning with stakeholder theory, the findings indicate that improved risk management generates benefits for a broad spectrum of stakeholders, including depositors, clients, and regulatory bodies, consequently contributing to the stability of the financial system. Moreover, the findings corroborate signaling theory, demonstrating how internal audit activities send positive signals to the market regarding the quality of risk management, thereby strengthening confidence in banks' resilience. The study's results, therefore, fully support this theoretical framework, confirming that robust internal audit standards play a vital role in enhancing risk management effectiveness and contributing to the stability of the Palestinian banking sector, even in the face of challenging circumstances.

5. Conclusion

This research aimed to investigate the impact of internal audit standards, specifically attribute and performance standards, on bank risk management during crises in Palestine. The study aimed to quantify the influence of each standard dimension on risk management and evaluate the effectiveness of the risk management framework within Palestinian banks during crises. A purposive sample of 160 individuals was selected, comprising employees from internal audit and risk management departments, as well as members of audit and risk management committees in Palestinian banks. This study uniquely used a mixed-methods approach with an explanatory sequential design, utilizing a questionnaire followed by in-depth interviews with the target group.

The findings reveal a statistically significant positive impact of internal auditors' adherence to internal audit standards on risk management in Palestinian banks during crises. Both attribute and performance standards demonstrated a positive influence on bank risk management under crisis conditions. The dependent variable, "efficiency of bank risk management during crises," achieved a mean score of 4.12 with a standard deviation of 0.535, indicating a high level of agreement from the sample's perspective.

The study further highlights the performance standards dimension as having the most significant impact on risk management, followed by attribute standards in terms of their influence on bank risk management during crises.

These findings hold significant implications for various stakeholders. For boards of directors and senior management in banks, the results suggest that strengthening the

functionality of the internal audit function by reinforcing the application of internal audit standards can fortify bank risk management systems. This enhancement enables managers to improve and develop risk matrices, effectively address potential risks and mitigate negative impacts. For the Palestinian Monetary Authority, the findings point to tangible benefits that could be achieved by reassessing strategies to enhance the effectiveness of internal audit functions, ultimately leading to improved risk management outcomes in Palestinian banks during crises. The study provides a valuable knowledge base that can be used to enhance internal auditors' skills and deepen their understanding of the intricate relationship between audit standards and risk management, thereby improving their performance efficiency and contributing to the protection of financial institutions. The study's results illustrate how risk-oriented internal audit practices can support the sustainability of banking operations, particularly during times of crisis, thereby enhancing banks' ability to maintain long-term financial stability.

This study underscores that adherence to internal standards is not merely a compliance requirement but a strategic investment in robust risk management practices. Such adherence promotes enhanced risk identification, assessment, monitoring and mitigation, ultimately contributing to increased transparency, accountability and operational efficiency, all of which benefit the bank and its stakeholders.

This study contributes through both methodological and contextual innovations. It moves beyond prior studies focusing on broad internal auditing standards to offer a detailed analysis of the attributes and performance standards within the Palestinian context. Furthermore, it differentiates itself by providing an in-depth exploration of their distinct contributions to risk management effectiveness and by using a mixed-methods approach that integrates quantitative and qualitative data for a more nuanced understanding. The findings are expected to enhance understanding in similar developing contexts, offer practical recommendations for financial institutions, inform global regulatory policies and provide a strong theoretical basis for future studies, thereby advancing knowledge of the global impact of internal audit standards on risk management.

However, this study faces certain limitations that may influence the interpretation of the results. For example, the results are based on a cross-sectional survey confined to a single country, and outcomes might differ if the survey were expanded to cover additional time periods and countries. Furthermore, the selection of influential factors in the model may be based on a specific stream of literature, potentially leaving room for other variables suggested by different bodies of literature. Despite efforts to improve response rates, some participants may have tended to downplay certain responses or maintain a neutral stance on specific questions due to their confidential or sensitive nature. These limitations underscore the need for future research to address these gaps and provide a more comprehensive understanding of the complex relationship between internal audit standards and risk management in a broader context.

The present study did not directly measure the specific effects of the COVID-19 pandemic, as its methodology did not involve comparative data collection from pre- and post-pandemic periods. It should be noted, however, that the study is situated within the distinct temporal context of Palestine, an environment characterized by persistent conflict and economic adversity. Consequently, while the paper examines the influence of internal auditor attributes and performance metrics on risk management, and considers the impact of environmental changes on its findings, it does not isolate the effects specifically attributable to the COVID-19 pandemic.

This study relied on the International Professional Framework for Internal Auditing of 2017, which incorporates standards for internal auditing. However, it did not consider the

updated international internal auditing standards released in 2024, will become effective January 9, 2025. These updated standards aim to enhance and refine the role of internal auditing, aligning it more effectively with contemporary challenges which include the rapidly evolving landscape of technology, increased reliance on big data and digital analytics, growing complexity in business environments and heightened stakeholder expectations for integrity and independence. Furthermore, these updates seek to make internal audit processes more effective in assessing and managing risk, promoting transparency and compliance and ensuring audit quality consistent with international best practices [The Institute of Internal Auditors (IIA), 2024]. This presents an opportunity for future research to examine the impact and application of these updated international standards on internal auditing practices.

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