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Article

# Mediating Role of Governance on Audit Culture and Audit Quality Evidence from Lebanon

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**Abstract:** This study investigates how audit culture and internal control systems contribute to audit quality, with governance examined as a mediating factor in Lebanese audit firms. The research is grounded in Agency Theory, Stakeholder Theory, and the COSO Internal Control Framework. Using a quantitative cross-sectional design, data were collected from 422 professionals working in auditing, governance, and related financial roles in Lebanon. The proposed relationships were tested through Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that both audit culture and internal control have significant positive effects on governance and audit quality. Governance also positively influences audit quality and partially mediates the relationships between audit culture and audit quality, and between internal control and audit quality. These findings highlight the importance of governance in transforming ethical audit practices and effective control systems into stronger audit outcomes, particularly in institutional contexts where regulatory enforcement remains challenging.
**Keywords:** Mediating Governance, Audit Culture, Audit Quality, Evidence, Lebanon.

## 1.Introduction

Over the past few decades, the auditing profession has faced significant scrutiny following major financial scandals that resulted in billions of dollars in losses and the collapse of prominent corporations. These events, such as the Enron scandal (2001) and the 2007–2008 global financial crisis, undermined public confidence in auditors and raised concerns about the profession's integrity, independence, and overall quality (Finn et al., 1994). As a result, audit quality has become a central focus of academic research, professional practice, and regulatory reforms, as it directly influences a company's credibility, financial stability, and stakeholder trust (Xiao et al., 2020).

Despite its importance, the concept of audit quality remains complex and difficult to define. Since the 1980s, numerous scholars have attempted to identify its determinants (DeAngelo, 1986; Francis et al., 2011; DeFond & Zhang, 2014), yet no universally accepted framework has emerged. Audit quality extends beyond compliance with standards to encompass multiple interacting dimensions such as auditor competence, professional skepticism, independence, ethical culture, and organizational governance (Francis, 2011). It is therefore essential to examine the factors that collectively shape audit quality within specific institutional contexts, especially in environments where regulatory enforcement is weak and governance systems are underdeveloped.

High-profile audit failures have emphasized that strong auditing practices are vital to maintaining market confidence and ensuring accurate, transparent financial reporting (Najmatuzzahrah et al., 2021). The quality of an audit depends not only on technical proficiency but also on behavioral and contextual factors, including leadership tone, firm culture, and the regulatory climate (Knechel et al., 2013; IAASB, 2014). Culture, in particular, represents the underlying system of values, beliefs, and norms that guide behavior within organizations. As defined by the Institute of Internal Auditors (IIA), culture is "the invisible belief system and values of individuals that shape an organization." In auditing firms, culture is viewed as the foundation of professional behavior and ethical conduct (Jenkins et al., 2008; Gaynor et al., 2016). The Financial Reporting Council's (2008) Audit Quality Framework and the Center for Audit Quality (2019) both emphasize leadership and organizational culture as core drivers of audit quality, asserting that leaders set the "tone at the top" and are responsible for promoting ethical, high-quality audits in the public interest.

Another critical element influencing audit quality is the effectiveness of internal controls. Strong internal control systems help prevent errors, detect fraud, and ensure compliance with policies and regulations. According to the COSO (2013) framework, internal controls comprise five interrelated components: control environment, risk assessment, control activities, information and communication, and monitoring. Studies consistently show that organizations with robust internal controls produce higher-quality financial reports and are less prone to misstatement and manipulation (Abbas & Iqbal, 2012; Aramide & Bashir, 2015; Paitoon et al., 2015). Internal controls, therefore, serve as both a preventive and corrective mechanism that enhances audit reliability and stakeholder confidence.

Governance is equally fundamental to sustaining audit quality. It defines the system of rules, practices, and processes through which a firm is directed and controlled. Effective governance ensures transparency, accountability, and ethical behavior at all levels of the organization (ASX, 2002; OECD, 2004). The board of directors plays a pivotal role in enforcing these principles by overseeing management performance, protecting shareholder interests, and promoting compliance with regulatory standards (Claessens & Yurtoglu, 2013). According to the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP, 2009), good governance is characterized by participation, rule of law, accountability, transparency, responsiveness, and inclusiveness—attributes that collectively reduce corruption and improve public confidence.

In Lebanon, challenges related to governance and transparency are particularly acute. Reports by the Lebanese Transparency Association (2008), Transparency International (2022), and the World Bank (2017) reveal systemic corruption, political interference, and weak institutional frameworks. The International Monetary Fund (IMF, 2018) and CEDRE (2018) further highlight the absence of effective regulatory enforcement and the dominance of patronage systems that undermine accountability. This environment has contributed to persistent weaknesses in corporate reporting and low levels of shareholder trust. Although many Lebanese firms now undergo external audits—partly due to the influence of foreign investment and international corporate structures (Khalil & Yammine, 2019)—audit quality remains inconsistent due to a lack of regulatory oversight and limited litigation risk for auditors.

Despite the growing global emphasis on audit quality, there remains a lack of comprehensive studies examining how audit culture, internal control systems, and governance collectively influence audit quality within the Lebanese context. Existing research has often addressed these factors independently—for instance, focusing solely on audit culture (Jenkins et al., 2008; Svanberg & Öhman, 2016; Francis, 2011) or internal controls (Abbas & Iqbal, 2012; Aramide & Bashir, 2015; Paitoon et al., 2015) without considering their combined impact. Some scholars have highlighted the importance of governance in shaping audit outcomes (Claessens & Yurtoglu, 2013; Knechel et al., 2013), yet studies integrating these three dimensions within a single empirical framework remain limited, especially in developing economies. This gap underscores the need for a holistic investigation that captures the interrelationship among these factors, particularly in institutional environments characterized by weak regulatory enforcement and governance challenges such as Lebanon (Khalil & Yammine, 2019; IMF, 2018).

The importance of this study lies in both its theoretical and practical contributions. Theoretically, it enriches the literature by offering a multidimensional framework that connects cultural, structural, and governance elements to audit quality, thereby advancing understanding of how these factors interact to influence auditors' behavior and professional judgment. Practically, it provides valuable insights for policymakers, regulators, and audit practitioners in Lebanon and other developing countries seeking to enhance audit practices, reinforce ethical standards, and strengthen governance mechanisms. By identifying the determinants of audit quality within a complex institutional setting, this research contributes to improving transparency, accountability, and public confidence in the auditing profession.

The paper is structured as follows: Section 2 presents the theoretical framework; Section 3 reviews the literature and develops hypotheses; Section 4 describes the methodology and presents the results; and Section 5 concludes with recommendations and future research directions.

## 2. Theoretical Framework

### *2.1. Audit Quality*

Audit quality is a multifaceted and critically important concept in auditing practice, regulation, and research, directly influencing a company's credibility, reputation, and financial success (Xiao et al., 2020). Despite its acknowledged significance, a universally accepted definition or consistent measure of audit quality remains elusive. Discussions often revolve around the quality of audit reports and adherence to audit criteria. However, audit standards alone are insufficient to fully comprehend audit quality, as numerous factors can impact the outcomes of a corporate audit. Scholars have extensively studied these determinants since the 1980s, categorizing audit quality into inputs (e.g., auditor competence, ethics, professional skepticism), processes (e.g., audit techniques, evidence collection), and outputs (e.g., reliable reports, stakeholder satisfaction) (DeAngelo, 1981; Francis, 2011; Knechel et al., 2013; DeFond & Zhang, 2014). Consistent with ASIC (2022), this study defines audit quality as the degree to which an audit provides reasonable assurance that the financial statements are free from material misstatement and comply with applicable standards, thereby serving the interests of stakeholders.

### *2.2. Audit Culture*

Audit culture encompasses the shared values, norms, and professional behaviors that guide auditors within a firm and the broader profession. It represents the invisible belief systems, values, norms, and preferences of the individuals that form an organization, serving as a fundamental driver of conduct (Vicente, 2023; Joshi, 2025). For auditing companies, this culture is often considered unique and private, forming the underlying essence of the organization (Jenkins et al., 2008; Knechel et al., 2013; Gaynor et al., 2016). A strong ethical and professional audit culture is crucial for audit quality, as it directly shapes auditor professional judgment and ethical practices. Practitioner frameworks, such as the Financial Reporting Council's (2008) Audit Quality Framework and the Center for Audit Quality’s (2019), emphasize the role of leadership in shaping this culture, advocating for CEOs to demonstrate concern for high audit quality and to promote "doing the right thing" in the public interest (Pinello et al., 2019). Moreover, Hofstede’s cultural dimensions—power distance, individualism, masculinity, uncertainty avoidance, and time orientation—offer a useful lens for understanding how national and organizational cultures affect auditors’ ethical reasoning and decision processes (Hofstede, 1980; Hofstede, 2001). In contexts such as Lebanon, characterized by cultural diversity and varying professional norms, these dimensions help explain differences in auditor behavior and the ethical climate within firms.

### *2.3. Internal Control Systems*

Internal control systems are essential to any firm, representing the strategies implemented by a company's finance department to achieve its operational and financial goals. Management is responsible for designing, implementing, and maintaining all internal controls, with the board overseeing the entire control environment (Kenneth, 2016). Robust internal controls are vital for organizations to avoid fraud, comply with regulations, and increase operating efficiency by adhering to budgets, identifying capital deficiencies, and providing accurate information to leadership (Kenton, 2024). The COSO framework (2013) serves as the global standard for internal control, outlining five interconnected components:

- **Control Environment:** The set of standards, processes, and structures that provide the basis for carrying out internal control across the organization.
- **Risk Assessment:** The process for identifying and assessing risks to the achievement of objectives.
- **Control Activities:** Actions established through policies and procedures that help ensure management directives to mitigate risks to the achievement of objectives are carried out.
- **Information and Communication:** The ongoing, iterative process of providing, sharing, and obtaining necessary information.
- **Monitoring Activities:** Ongoing evaluations, separate evaluations, or some combination of the two used to ascertain whether the components of internal control are present and functioning.

Multiple empirical studies consistently demonstrate that organizations with inadequate internal controls produce lower-quality profits and accruals, underscoring that reliable financial reporting necessitates robust internal controls (Abbas and Iqbal, 2012; Aramide and Bashir, 2015; Paitoon et al., 2015; Edori et al., 2020).

## 2.4. Governance Structure

Organizational leadership and management are fundamentally dependent on governance, which encompasses the processes and structures that hold firms and leaders accountable (ASX, 2002). Governance provides the framework for identifying firm objectives, determining the means to attain those goals, and measuring progress (OECD, 2004). Its primary aim is to maximize shareholder value by monitoring managerial performance and the broader business, thereby increasing managerial accountability and minimizing agency conflicts (Claessens and Yurtoglu, 2013). The board of directors, acting as the primary authority for governance, is entrusted with ensuring compliance with applicable laws, fulfilling firm goals, and satisfying stakeholders. Effective governance structures, involving independent boards and audit committees, enhance audit quality by strengthening accountability, transparency, and oversight, thereby reducing managerial opportunism and malpractice. The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP, 2009) further outlines eight characteristics of good governance: inclusion, rule of law, accountability, transparency, responsiveness, effectiveness, and consensus, which collectively contribute to reducing corruption and fostering ethical decision-making.

## 2.5. Theoretical Foundation

This research is primarily grounded in Agency Theory and Stakeholder Theory. Agency Theory (Jensen & Meckling, 1976) posits that conflicts of interest can arise between principals (shareholders) and agents (management), leading to opportunistic behavior and information asymmetry. Auditing, robust internal controls, and effective governance mechanisms are crucial for mitigating these agency problems by providing oversight, ensuring accountability, and aligning managerial actions with shareholder interests (Fama & Jensen, 1983; Eisenhardt, 1989). Stakeholder Theory (Freeman, 1984) extends this perspective by arguing that organizations have responsibilities to a broader range of stakeholders beyond just shareholders. Long-term sustainability requires balancing the interests of employees, customers, suppliers, regulators, and the broader community (Donaldson & Preston, 1995). In a fragile governance landscape like Lebanon, where trust is eroded and institutional weaknesses are prevalent, the role of audit quality, strong internal controls, and effective governance becomes even more critical in protecting the interests of all stakeholders (Gray et al., 1996; Carcello et al., 2011).

**Agency Theory**

Agency Theory (Jensen & Meckling, 1976) posits that a principal–agent conflict arises when managers pursue their own interests rather than those of shareholders, resulting in information asymmetry and moral hazard (Watts & Zimmerman, 1983; Eisenhardt, 1989). Managers may manipulate accounting figures, delay disclosures, or engage in opportunistic reporting that distorts true financial performance (DeFond & Zhang, 2014). To mitigate such conflicts, corporate governance mechanisms—including independent boards, audit committees, and high-quality external audits—serve as essential monitoring tools that align managerial actions with shareholders' interests (Fama & Jensen, 1983; Francis, 2011). Internal control systems further reduce agency costs by ensuring that transactions are properly authorized, recorded, and reviewed, minimizing the possibility of fraud or misrepresentation (COSO, 2013; Aramide & Bashir, 2015). Effective governance structures also enhance auditor independence, which strengthens the credibility of the audit process and increases the reliability of financial reporting (Francis et al., 2011; Knechel et al., 2013). In developing economies such as Lebanon—where regulatory frameworks and enforcement remain limited—agency problems can be more pervasive, underscoring the importance of strong governance and robust internal controls to protect stakeholder interests and reinforce public confidence (Claessens & Yurtoglu, 2013; Al-Hazaimeh et al., 2022).

**Stakeholder Theory**

Stakeholder Theory (Freeman, 1984) extends the agency perspective by arguing that organizations have ethical and economic obligations to a wide spectrum of stakeholders, not solely shareholders. It asserts that long-term organizational success depends on balancing the expectations of all affected groups, including employees, customers, suppliers, regulators, and the community (Donaldson & Preston, 1995; Phillips et al., 2003). From this perspective, auditors play a pivotal societal role by ensuring transparency and credibility in financial reporting, thereby safeguarding public trust (Guthrie & Parker, 1990; Gray et al., 1996).

An organization that nurtures a strong audit culture—founded on ethics, objectivity, and professional integrity—upholds its accountability toward diverse stakeholders (Knechel & Vanstraelen, 2007; Pinello et al., 2019). When coupled with sound governance and effective internal controls, such a culture enhances not only audit quality but also social legitimacy (Carcello et al., 2011). In the Lebanese context, where institutional trust is often fragile, Stakeholder Theory emphasizes the importance of ethical leadership and auditor independence in preserving confidence in both the auditing profession and financial institutions (Gaynor et al., 2016; Vicente, 2023).

## 3.Literature Review and Hypothesis Development

### *3.1. The Impact of Audit Culture on Governance*

Empirical research has long recognized the crucial role of audit culture in shaping the effectiveness of governance systems. Early evidence by Beekes and Brown (2006) demonstrated that firms that promote ethical behavior and transparency in their audit environments benefit from stronger board oversight and more credible governance outcomes. Jenkins et al. (2008) confirmed that professional environments encouraging open communication and ethical discipline among auditors improve the reliability of information available to governance bodies, enabling better monitoring and control. Later studies expanded on these findings, emphasizing how ethical norms and leadership tone influence governance quality. Svanberg and Öhman (2013) found that auditors operating in integrity-driven cultures demonstrate enhanced compliance with governance principles and improved accountability. Christensen et al. (2016) reinforced that ethical leadership and team-based value systems foster objectivity in audit practices, directly improving governance oversight. Alzoubi (2018) provided regional evidence from Arab countries, showing that audit cultures rooted in independence and honesty strengthen governance by reducing managerial opportunism and agency conflicts. More recent empirical work continues to highlight audit culture as a determinant of governance effectiveness. Francis et al. (2019) observed that firms with coherent ethical cultures report higher board engagement and monitoring activity, while Habudin et al. (2023) demonstrated that continuous ethical training among auditors enhances governance transparency and discipline. Within Lebanon, Feghali et al. (2022) found that audit firms with strong internal cultural cohesion mitigate governance failures arising from political interference. Similarly, Shatila et al. (2025) confirmed that embedding ethical values and professional skepticism within Lebanese audit firms leads to improved governance accountability and operational clarity. Collectively, these studies affirm that a strong audit culture—grounded in ethics, professionalism, and skepticism—acts as an informal but powerful governance mechanism. It reinforces oversight, enhances accountability, and compensates for institutional weaknesses.

**H1: There is a significant relationship between audit culture and governance.**

### *3.2. The Impact of Internal Control on Governance*

Empirical studies consistently show that internal control systems form the foundation for effective corporate governance. Krishnan (2005) demonstrated that firms with strong internal controls produce more reliable financial statements, reducing information asymmetry and improving board oversight. Doyle et al. (2007) similarly revealed that weaknesses in control environments increase the likelihood of restatements and governance failures, highlighting internal control as a critical safeguard against management opportunism. Building on these findings, Chalmers et al. (2019) found that organizations with structured internal controls exhibit greater transparency in reporting and risk assessment, resulting in enhanced governance responsiveness. Lee (2019) added that effective internal controls improve information flow between auditors and governance bodies, ensuring timely identification of irregularities. Ahmed and Abbas (2022) confirmed that integrated monitoring and risk management mechanisms reinforce ethical decision-making, while Diya (2022) emphasized that transparent control systems provide governance actors with reliable data for performance oversight. Arbogast (2023) further demonstrated that large organizations with comprehensive control frameworks exhibit stronger board accountability and faster governance responses.Within fragile institutional contexts, internal controls often serve as functional substitutes for weak regulatory governance. Iqbal et al. (2023) found that in environments with limited enforcement, robust control systems maintain organizational discipline and public confidence. In Lebanon, Shatila et al. (2025) observed that effective control environments compensate for systemic governance shortcomings, allowing audit firms to sustain ethical accountability despite political instability. Overall, these findings affirm that internal control systems strengthen governance by ensuring accuracy, transparency, and ethical compliance, even in economies characterized by institutional fragility.

**H2: There is a significant relationship between internal control and governance.**

### *3.3. The Impact of Audit Culture on Audit Quality*

Audit culture has been empirically proven to directly influence audit quality by shaping professional behavior and ethical standards. DeAngelo (1981) first established that audit quality depends on both the auditor's competence and willingness to report irregularities, both of which are reinforced through strong cultural values. Beekes and Brown (2006) later showed that audit environments emphasizing transparency and integrity produce higher-quality financial reports and fewer misstatements. Further evidence by Knechel et al. (2013) highlighted that professional skepticism—an attribute rooted in organizational culture—improves auditors' ability to detect anomalies. Svanberg and Öhman (2013) confirmed that ethical cultures increase auditors' independence, reducing bias and enhancing judgment accuracy. Christensen et al. (2016) added that leadership commitment to ethical conduct directly correlates with the precision and credibility of audit outcomes. Empirical work in emerging economies supports these observations. Alzoubi (2018) found that audit firms promoting professional ethics in Arab markets deliver more credible and consistent audit opinions. Francis et al. (2019) linked internal cultural coherence to more accurate audit judgments and better stakeholder trust. Habudin et al. (2023) further emphasized that ethics-focused audit firms outperform others in detecting irregularities and maintaining audit reliability. In Lebanon, Feghali et al. (2022) and Shatila et al. (2025) demonstrated that audit culture is vital in compensating for weak governance oversight. Their studies found that Lebanese audit firms characterized by high ethical cohesion and skepticism produce more transparent audit results and uphold professional independence despite political and institutional pressures. In summary, empirical evidence strongly supports that audit culture enhances audit quality by embedding ethics, skepticism, and accountability in audit practices.

**H3: There is a significant relationship between audit culture and audit quality.**

### *3.4. The Impact of Internal Control on Audit Quality*

Empirical studies consistently link effective internal controls to improved audit quality. Krishnan (2005) reported that firms with strong control environments have fewer audit adjustments and more reliable reporting outcomes. Doyle et al. (2007) observed that weaknesses in internal control systems lead to delayed audits and higher restatement probabilities, undermining overall audit quality. Building upon these foundations, Feng et al. (2009) found that internal controls improve audit efficiency by reducing errors and audit risks, while Aramide and Bashir (2015) demonstrated that structured internal systems increase compliance and accuracy in audit findings. Yasutaka et al. (2015) further emphasized that transparent control procedures enhance auditors' ability to assess financial integrity. Recent empirical studies reinforce this connection. Chalmers et al. (2019) established that internal control integration with governance practices enhances auditor confidence and assurance reliability. Ojua (2016) and Phimarn et al. (2023) confirmed that effective internal controls improve audit consistency, even in developing economies with weak regulatory oversight. Iqbal et al. (2023) and Shatila et al. (2025) provided regional evidence from Lebanon, demonstrating that robust internal controls reduce risk exposure, improve communication between auditors and clients, and increase the accuracy of audit outcomes. Overall, strong internal control systems provide the structural foundation necessary for reliable audits by enhancing transparency, reducing error, and supporting professional diligence.

**H4: There is a significant relationship between internal control and audit quality.**

### *3.5. The Impact of Governance on Audit Quality*

Governance quality has been empirically shown to be a central determinant of audit effectiveness. Cohen et al. (2002) provided early evidence that active and independent audit committees improve the credibility of audit reports and mitigate management bias. Carcello et al. (2011) further demonstrated that audit committees with financial expertise significantly enhance audit performance and reliability. Subsequent research by Alqaraleh (2019) highlighted that ethical leadership and transparent governance structures promote auditor independence and minimize audit deficiencies. Francis et al. (2019) confirmed that consistent oversight by governance bodies correlates with improved audit timeliness and precision. Habudin et al. (2023) added that governance practices emphasizing ethics and accountability improve audit supervision, while Feghali et al. (2022) found that in Lebanon, effective governance frameworks mitigate political interference and sustain audit credibility. Recent findings by Shatila et al. (2025) revealed that in fragile institutional contexts, governance mechanisms—such as independent boards and audit committees—serve as stabilizing agents that enhance audit quality despite environmental uncertainty. Their study concluded that governance acts as both a protector and facilitator, ensuring adherence to professional standards and maintaining auditor objectivity. Collectively, these studies underscore that governance is indispensable for sustaining audit quality by promoting independence, oversight, and transparency.

**H5: There is a significant relationship between governance and audit quality.**

### *3.6. Governance Mediates Audit Culture and Audit Quality*

Empirical evidence supports the notion that governance mediates the influence of audit culture on audit quality. Carcello et al. (2011) showed that governance structures, particularly audit committees, provide the institutional framework through which ethical values are operationalized into improved audit judgments. Francis et al. (2019) found that while ethical audit cultures enhance professional behavior, governance reinforcement is necessary for these values to translate into consistent audit performance. Regional research by Feghali et al. (2022) demonstrated that governance mechanisms institutionalize cultural norms—such as independence and integrity—within Lebanese audit firms, ensuring these values influence audit outcomes. Habudin et al. (2023) further emphasized that ethical governance leadership enables auditors to apply professional skepticism effectively, while Shatila et al. (2025) confirmed that in weak institutional environments, governance mediates the relationship between audit culture and audit quality by embedding ethical standards into formal oversight practices. These studies collectively highlight that audit culture contributes to audit quality more effectively when governance systems reinforce its application. Governance thus transforms ethical intention into reliable, high-quality audit performance.

**H6: Governance mediates the relationship between audit culture and audit quality.**

### *3.7. Governance Mediates Internal Control and Audit Quality*

Empirical studies have established that the impact of internal control systems on audit quality is significantly enhanced when supported by strong governance mechanisms. Krishnan (2005) and Doyle et al. (2007) provided early evidence that governance oversight strengthens the implementation and monitoring of internal controls, leading to higher audit reliability. Chalmers et al. (2019) later confirmed that governance ensures consistent enforcement of control mechanisms, improving auditor confidence and audit assurance quality. Arbogast (2023) observed that firms with mature governance frameworks convert robust control systems into superior audit outcomes through effective supervision. Iqbal et al. (2023) demonstrated that governance acts as the conduit between internal control efficiency and audit credibility in developing markets, while Pham et al. (2025) found that governance committees and independent boards enhance the operational impact of internal controls by ensuring their alignment with audit objectives. In Lebanon, Shatila et al. (2025) empirically showed that governance mediates the relationship between internal controls and audit quality by institutionalizing monitoring processes and embedding ethical accountability. Their findings emphasized that governance transforms internal control practices into consistent, measurable improvements in audit quality. Overall, governance serves as the critical bridge connecting internal control effectiveness with credible audit outcomes. It ensures that procedural mechanisms are enforced ethically and consistently, particularly in fragile governance environments.

**H7: Governance mediates the relationship between internal control and audit quality.**

## 4. Methodology

### *4.1. Research Design and Data Collection*

This study adopts a quantitative, cross-sectional research design to examine the relationships among audit culture, internal control, governance, and audit quality within Lebanese audit firms. A quantitative approach is appropriate as it enables hypothesis testing and the examination of relationships among latent constructs using statistical techniques (Sekaran & Bougie, 2016).

The research framework and hypotheses were developed deductively based on Agency Theory, Stakeholder Theory, and the COSO Internal Control Framework, which provide a robust theoretical basis for analyzing governance mechanisms and audit quality.

The empirical context of the study is Lebanon, which was selected due to its ongoing financial crisis, institutional fragility, and the growing need to strengthen audit oversight and governance mechanisms (Mardini et al., 2015; Khalil & Yammine, 2019). Data were collected using an online survey administered via Google Forms, allowing efficient data collection and broad geographic coverage.

### *4.2. Measurement of Variables*

The constructs examined in this study include audit culture, internal control, governance, and audit quality. In accordance with the proposed research model, audit culture and internal control are treated as independent variables, audit quality is specified as the dependent variable, and governance is modeled as a mediating variable in the relationships between the independent variables and audit quality. All constructs were operationalized using multi-item measurement scales adapted from well-established prior studies to ensure content validity and reliability, and were modeled as reflective latent variables.

Audit culture, as an independent variable, was measured using items adapted from Hofstede's (2001) cultural dimensions framework, tailored to the auditing context. These items capture key professional and ethical dimensions, including ethical awareness, professional skepticism, accountability, and shared values within audit firms.

Internal control, the second independent variable, was measured based on the COSO Integrated Framework (2013), encompassing the five core components of internal control: control environment, risk assessment, control activities, information and communication, and monitoring. The measurement items assess the extent to which audit firms implement effective internal mechanisms that promote accountability, transparency, and risk management.

Governance was specified as a mediating variable and operationalized using items adapted from the framework proposed by Claessens and Yurtoglu (2013). The scale captures dimensions related to leadership effectiveness, ethical standards, transparency, and oversight mechanisms, reflecting governance practices that facilitate the translation of organizational practices into improved audit quality, particularly in emerging and institutionally fragile environments.

Audit quality, the dependent variable in this study, was measured using established scales derived from DeAngelo (1981) and DeFond and Zhang (2014). The measurement items focus on core attributes of audit quality, including auditor competence, independence, adherence to professional standards, and the exercise of professional judgment.

All measurement items were assessed using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The use of multiple items per construct enhances measurement precision and supports the application of Structural Equation Modeling.

### *4.3. Sample Size*

The target population of this study comprised professionals actively engaged in auditing and governance activities in Lebanon, including certified public accountants (CPAs), external auditors, internal auditors, audit committee members, and financial controllers. These categories were selected because of their direct involvement in assurance, internal control, and governance processes that influence audit quality.

A purposive sampling technique was employed to ensure that respondents possessed the relevant professional expertise and experience required to provide informed and reliable responses. This approach was deemed appropriate given the specialized nature of the study constructs and the need to capture insights from practitioners with direct exposure to audit culture, internal control systems, governance practices, and audit quality.

A total of 422 questionnaires were distributed electronically to professionals working in audit firms operating in Lebanon, including Big Four, international, and local firms. All 422 questionnaires were collected and deemed valid for analysis. This high level of participation reflects strong professional engagement with the research topic and ensured an adequate sample size for Structural Equation Modeling (SEM).

The final sample size exceeded the minimum threshold recommended for SEM-based studies, which generally require at least 200 valid responses to ensure statistical power and model stability (Hair et al., 2019). The demographic characteristics of the respondents reflect a diverse and professionally representative sample in terms of gender, age, job position, educational background, professional certifications, firm size, and years of experience.

To further confirm sampling adequacy, the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy was 0.930, well above the recommended threshold of 0.60, and Bartlett's test of sphericity was statistically significant ($\chi^2 = 32,876.684$; $p < 0.001$). These results confirm the suitability of the dataset for factor analysis and subsequent structural modeling.

Overall, the sample provides a strong empirical foundation for the study, ensuring that the findings reliably reflect the perspectives of audit professionals operating within Lebanon's audit environment.

### *4.4. Data Analysis and Results*

The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to test the proposed research model and the hypothesized relationships among audit culture, internal control, governance, and audit quality. PLS-SEM was selected due to its suitability for complex models involving mediation effects and its robustness in handling non-normal data distributions, making it appropriate for organizational and behavioral research (Hair et al., 2019).

The analysis followed a two-stage procedure comprising measurement model assessment and structural model evaluation, in line with established PLS-SEM guidelines.

#### 4.4.1. Measurement Model

The measurement model was assessed to examine the reliability and validity of the latent constructs. Indicator reliability was first evaluated using standardized factor loadings, with values exceeding the minimum threshold of 0.60 considered acceptable (Hulland, 1999). Based on this criterion, 86 observed indicators were retained for further analysis, each loading significantly on its respective construct.

Construct reliability was assessed using Cronbach's alpha (α) and Composite Reliability (CR). As shown in Table 1, all constructs demonstrated strong internal consistency, with Cronbach's alpha values ranging between 0.942 and 0.972, exceeding the recommended threshold of 0.70. Composite Reliability values further confirmed construct reliability, with values of 0.877 for Internal Control, 0.834 for Audit Culture, 0.777 for Audit Quality, and 0.655 for Governance.

**Table 1**

*Reliability and Convergent Validity of Constructs*

| **Construct** | **Cronbach's Alpha (α)** | **Composite Reliability (CR)** | **Average Variance Extracted (AVE)** |
|---|---|---|---|
| Audit Culture | 0.971 | 0.834 | 0.506 |
| Internal Control | 0.971 | 0.877 | 0.589 |
| Governance | 0.942 | 0.655 | 0.347 |
| Audit Quality | 0.972 | 0.777 | 0.470 |

Note. Source: SPSS (Output 25)

Convergent validity was evaluated using the Average Variance Extracted (AVE). Audit Culture (AVE = 0.506) and Internal Control (AVE = 0.589) exceeded the recommended threshold of 0.50, indicating satisfactory convergent validity. Although Audit Quality (AVE = 0.470) and Governance (AVE = 0.347) reported slightly lower AVE values, their high reliability measures support their adequacy for behavioral research conducted in emerging and fragile institutional contexts.

Discriminant validity was assessed using the Fornell–Larcker criterion. As presented in Table 2, the square root of the AVE for each construct exceeded the corresponding inter-construct correlations, confirming that all constructs are empirically distinct. Cross-loadings were also examined and confirmed that each indicator loaded higher on its intended construct than on any other construct.

**Table 2**

*Discriminant Validity (Fornell–Larcker Criterion)*

| | **Audit Culture** | **Internal Control** | **Governance** | **Audit Quality** |
|---|---|---|---|---|
| Audit Culture | 0.71 | 0.43 | 0.43 | 0.39 |
| Internal Control | 0.43 | 0.77 | 0.66 | 0.60 |
| Governance | 0.43 | 0.66 | 0.59 | 0.51 |
| Audit Quality | 0.39 | 0.60 | 0.51 | 0.68 |

Note. Source: SPSS (Output 25)

Overall, the results confirm that the measurement model demonstrates satisfactory reliability, convergent validity, and discriminant validity, providing a sound basis for evaluating structural relationships.

#### 4.4.2. Assessment of the Structural Model

Following confirmation of the measurement model, the structural model was evaluated to test the hypothesized relationships among audit culture, internal control, governance, and audit quality. A bootstrapping procedure with 5,000 resamples was employed to estimate standardized path coefficients, t-values, and significance levels.

The structural model exhibited an acceptable fit, with the Standardized Root Mean Square Residual (SRMR) below the recommended threshold of 0.08. The model's explanatory power was assessed using the coefficient of determination ($R^2$). The $R^2$ value for Audit Quality was 0.564, indicating that 56.4% of the variance in audit quality is explained jointly by audit culture, internal control, and governance, reflecting a substantial explanatory effect.

The results of the direct effects analysis indicate that Audit Culture has a significant positive effect on Governance ($\beta = 0.387$, $t = 6.245$, $p < 0.001$) and Audit Quality ($\beta = 0.402$, $t = 5.319$, $p < 0.001$). Similarly, Internal Control significantly influences Governance ($\beta = 0.298$, $t = 5.104$, $p < 0.001$) and Audit Quality ($\beta = 0.267$, $t = 3.781$, $p < 0.001$). Governance also demonstrated a significant positive effect on Audit Quality ($\beta = 0.331$, $t = 4.884$, $p < 0.001$).

**Table 3**

*Structural Model Results*

| **Hypothesis** | **Path** | **Std. Beta** | **t-value** | **p-value** | **Support** |
|---|---|---|---|---|---|
| H1 | Audit Culture → Governance | 0.387 | 6.245 | <0.001 | Yes ✅ |
| H2 | Internal Control → Governance | 0.298 | 5.104 | <0.001 | Yes ✅ |
| H3 | Audit Culture → Audit Quality | 0.402 | 5.319 | <0.001 | Yes ✅ |
| H4 | Internal Control → Audit Quality | 0.267 | 3.781 | <0.001 | Yes ✅ |
| H5 | Governance → Audit Quality | 0.331 | 4.884 | <0.001 | Yes ✅ |
| H6 | Audit Culture → Governance → Audit Quality | 0.128 | 3.525 | <0.001 | Yes ✅ (Partial Mediation) |
| H7 | Internal Control → Governance → Audit Quality | 0.099 | 3.107 | <0.001 | Yes ✅ (Partial Mediation) |

Note. Source: SPSS (Output 25)

Mediation analysis revealed that Governance partially mediates the relationship between Audit Culture and Audit Quality ($\beta = 0.128$, $t = 3.525$, $p < 0.001$), as well as the relationship between Internal Control and Audit Quality ($\beta = 0.099$, $t = 3.107$, $p < 0.001$). These findings indicate that governance serves as a critical transmission mechanism through which audit culture and internal control practices influence audit quality.

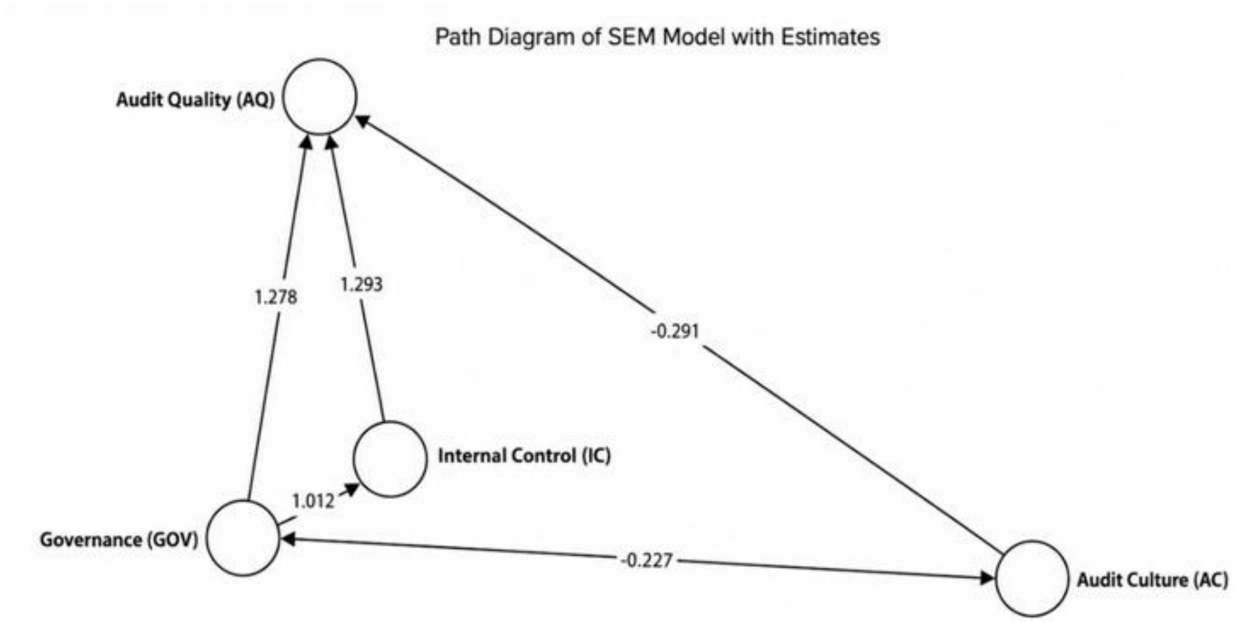


**Figure 1**

*Results of PLS-SEM Analysis*

Note. Source: SPSS (Output 25)

Further evaluation of model adequacy showed that the Normed Fit Index (NFI) exceeded 0.90, indicating good model fit. Predictive relevance was confirmed through positive $Q^2$ values obtained via the blindfolding procedure, demonstrating that the model possesses adequate predictive capability. Effect size ($f^2$) analysis further revealed medium to strong effects of audit culture and internal control on governance and audit quality, while governance exhibited a significant mediating role.

In summary, the structural model results confirm that all hypothesized relationships are statistically significant and consistent with theoretical expectations. Audit culture and internal control exert both direct and indirect effects on audit quality, with governance emerging as a pivotal mediating construct that strengthens the translation of organizational practices into high-quality audit outcomes within Lebanon's fragile institutional environment.

## 5. Conclusions and Recommendations

This research provides essential theoretical and empirical insights into how audit culture and governance mechanisms influence audit quality, establishing governance as a key mediating mechanism in enhancing financial accountability. Through structural equation modeling, the study confirms that a strong audit culture positively impacts governance practices, and in turn, governance significantly improves audit quality within the Lebanese auditing sector. The results reinforce the conceptual assumption that governance plays a pivotal bridging role, aligning ethical auditing norms with oversight structures to deliver high-quality audits and foster stakeholder confidence.

The empirical evidence shows that audit culture directly influences audit quality, but its effects are significantly amplified when mediated by governance. Organizations aiming for enhanced transparency and audit effectiveness must cultivate a robust audit culture while embedding independent governance structures, such as active audit committees and ethical leadership. This dual approach enhances accountability, ensures regulatory compliance, and supports reliable financial reporting.

The study offers several practical recommendations for auditing professionals, regulatory bodies, and policymakers. Efforts should focus on:

- Establishing independent boards and empowered audit committees,
- Promoting professional training programs in governance ethics and audit methodology,

- Fostering a culture of ethical conduct, transparency, and accountability,
- Integrating governance considerations into audit planning and risk assessment processes.

These initiatives contribute to improved audit quality and operational performance across auditing institutions, particularly in emerging economies where institutional frameworks may still be evolving.

### *5.1. Limitations and Directions for Future Research*

Despite the valuable contributions of this study, certain limitations exist. First, the research focused exclusively on Lebanon, a country representative of typical challenges in developing auditing environments, yet it does not capture organizational or cultural variations across regions or sectors. Second, the study utilized a quantitative cross-sectional design, which limits the exploration of deeper behavioral or contextual dynamics.

Future research should consider expanding the geographic scope to include other developing economies, enabling comparative analysis and generalization of findings. Additionally, a mixed-methods approach—combining surveys with qualitative interviews—could provide richer insights into the behavioral dimensions of audit culture and governance. Finally, future studies should explore more complex or moderated models, including variables such as regulatory enforcement, industry-specific risk, or technological readiness, to further explain the interplay between governance and audit quality.

**Declaration of Conflicting Interests**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. This declaration is intended to disclose any potential bias or conflict of interest that could affect the objectivity, integrity, or perceived value of the publication.

**Data Availability**

The datasets generated and analyzed during the current study are available from the corresponding author on reasonable request.

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