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Board Independence and Financial Reporting Quality: Unpacking the Governance–Audit Nexus in Financial Institutions

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ABSTRACT

Despite ongoing regulatory reforms, financial institutions of Pakistan continue to face significant governance challenges in aligning their board independence practices with internationally recognized standards of corporate governance. Therefore, this study investigates the relationship between board independence, internal control (ICL), internal audit quality (IAQ), and financial reporting quality (FRQ) in financial institutions of Pakistan. This idea was developed based on Principal-Agent Theory and the Stakeholder Theory to analyze how governance mechanisms affect how well organizations report and are ultimately held accountable for their actions, especially in areas of strict regulation. A survey of 392 audit professionals from financial institutions in southern Punjab was conducted and the data analyzed using structural equation modeling. Board independence is shown to significantly improve the effectiveness of ICL when providing oversight of corporate governance systems; therefore, the importance of independent boards in improving the effectiveness of governance systems cannot be overstated. ICL has a strong and positive impact on IAQ, as well as a direct impact on FRQ. IAQ has a significant positive impact on the FRQ and is critical to ensuring that financial statements are accurate, reliable and transparent. Both types of results provide support for the view that IAQ plays a partial mediating role in the relationship between ICL and FRQ. As a result, the mechanism of governance and the mechanism of control, through IAQ, both have a direct and indirect impact on the quality of financial reporting. Overall, the study demonstrates that independent boards, strong control systems, and high-quality internal audits substantially contribute to improving the quality of financial reporting.

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1. Introduction

The financial system of the country performs the key functions of financial intermediation, mobilization of savings, allocation of resources, and transmission of monetary policies, and thus, is of strategic importance to the economic structure of the country (Sanad, 2026). The last two decades have seen the banking system of Pakistan, and the non-banking financial institutions, undergo a significant qualitative and quantitative transformation. There has been an unprecedented growth and diversification in the size of the assets held, number of branches, and the penetration of different innovative digital financial products (Pal, 2022). The data further confirms the systemic importance and the ever-increasing complexity of the sector. The growth, certainly, is commendable, but it has brought to the fore the challenges of transparency, management of earnings, and challenges posed by the governance of institutions, which are adversely affecting stakeholder trust (Pratiwi et al., 2020; Shao et al., 2025). Poor governance and feeble internal control (ICL) have often been the cause of rampant financial reporting fraud, institutional collapses, and systemic crises. In Pakistan, where the financial institutions primarily serve the role of formal financial intermediation, the deteriorating FRQ goes beyond a problem of accounting. It is a concerning problem for the stability of the financial system and the safety of capital to the investors (Al-Wattar et al., 2019; Chung & Hwang, 2025; Penney et al., 2025).

A fundamental issue in Pakistan's financial institutions has not been addressed with the regulatory changes that are needed to meet international standards of independent boards of directors and good governance (Zournatzidou et al., 2025). Although it is a well-accepted governance factor, the empirical evidence of the effectiveness of independent boards in improving the ICL and quality of financial reporting through high quality internal auditing is inconclusive (Waqar et al., 2014). Existing research has focused on governance and ICL (Kaawaase et al., 2021; Mustafa & Al-Nimer, 2018), thus affording limited insights into the relationship between internal control and governance in improving financial reporting in highly regulated financial institutions. This disjointed evidence has put a huge question mark on the research, and it has also been found that ownership concentration, lack of regulatory capacity and implementation issues, and institutional deficiencies can shape the success of governance mechanisms, as this has been observed in developing countries like Pakistan.

The board independence is a primary construct regarding the independent functioning of boards of directors, which is especially important for effective corporate governance in developing countries (Almaqtari et al., 2022; Zaid et al., 2020). In the case of Pakistan's financial sector, regulators require boards of directors to be accompanied by independent directors (in some cases, a minimum of 1/3 of the board has to be independent directors. However, there are still concerns regarding the independence and/or professional skepticism and the quality of monitoring of such directors (Zaid et al., 2020). Practice shows that most financial institutions satisfy the requirement of formal board independence, but the presence of independent, or rather non-executive directors, has a devastating constraint in the financial reporting opportunism and/or the effective monitoring of financial reporting. In theory, it is expected that the presence of independent directors will strengthen the ICL Systems and improve the compliance of Internal Audit Standards (IAS) (Irene & Bunyasi, 2017), but there are social factors that may help weaken the information asymmetry, and the lack of strong Internal Audit (IA) Standards and their non-compliance may weaken the neutrality of the independent director. This is why it is important to study the paradox of Board Independence (BIP) in Pakistan in order to see if the independence of the boards of directors and the independence of the boards of directors of the boards of directors has any relationship with the quality of financial reporting (Ud Din & Nazneen, 2026).

Some of the findings of previous studies indicate that board independence, ICL, IAQ and FRQ are factors that play an important role in good corporate governance. Past research, however, has tended to analyses these constructs in isolation and looked at only one or two direct relationships {Zaid, 2020 #11720;Almaqtari, 2022 #11268;Stentella Lopes, 2018 #7980;Aziz, 2026 #14308}, e.g., the impact of board characteristics on governance outcomes or the impact of internal audit on the quality of reporting. Thus, little focus has been placed on understanding the interactions between these governance mechanisms and how they work together as an integrated system to boost financial reporting quality. In addition, the bulk of the empirical evidence has been collected in developed economies, which are quite distinct in terms of governance structures, regulatory enforcement and institutional environment from emerging economies. In Pakistan, the financial sector has seen governance changes that have enhanced regulatory requirements on the independence of its boards and internal control but there is an ongoing concern about the transparency of reporting, the effectiveness of audits and the quality of governance.

This study has several key contributions to corporate governance and auditing literature. It is theoretical in nature and builds on Agentic Theory and Stakeholder Theory by combining board independence, ICL, IAQ and FRQ in a cohesive framework that can be used to explain the synergistic impact of governance mechanisms on financial reporting quality. From a methodological point of view, the study empirically supports the proposed relationships through PLS-SEM and explores the mediating function of the IAQ, which contributes to the understanding of the governance–audit relationship. In terms of the context, the study complements the sparse existing literature on the emerging economies by studying a highly regulated financial sector in Pakistan where the issue of governance efficacy is of significance despite the current implementing of regulatory reforms.

The objective of this study is to examine the relationship between board independence, ICL, IAQ and FRQ. This study is equally useful to regulators and policymakers as it provides insights on how the corporate governance framework and audit standards get implemented in the financial institutions. This study will assist in designing regulations for control of internal auditing, the enforcement of audit standards, control of regulations pertaining to the management of risk, control regulations in order to achieve financial stability, and regulate the control of risks in order to protect investors and assure them of the financial market, and this is especially important in the balance of the imbalanced financial market of Pakistan. This study has also provided insights on how the quality of internal audit (IAQ) can serve as an example of a mediating variable.

The study is particularly relevant to corporate governance and auditing fields for certain. Theoretically, it builds on both Agency Theory and Stakeholder Theory, and combines the concepts of board independence, ICL, IAQ and FRQ as a single concept that considers the role of governance mechanisms in collectively improving the quality of financial reporting. In the methodological part, the study empirically tests the relationships proposed by the PLS-SEM model and explores the mediating role of the internal audit quality, thus enriching the understanding of the governance – audit relationship. In the context of emerging economies, the study contributes to the scanty evidence base by examining the financial system in a country that has a very different governance framework, Pakistan, where the effectiveness of financial system governance is a key concern, though regulatory reforms are ongoing. These contributions help to expand the knowledge about governance mechanisms and provide evidence-informed recommendations for enhancing financial transparency and institutional accountability.

2. Literature Review

2.1 Theoretical Foundation

According to Agency Theory, independent directors help reduce managers’ desire to take advantage of their positions and also help improve the mechanisms to monitor what managers do (Forster et al., 2025; Jensen & Meckling, 1976, 1979). The fact that boards are comprised of a large majority of independent directors improves the objectivity of oversight and the establishment of more effective and impartial ICL systems. These ICL will provide a disciplined environment to operate, which in turn will enable higher quality internal audits to take place through transparency; established procedures; and consistent evaluation of risk. Stakeholder Theory can also be applied to companies in that they are expected to protect the various stakeholder groups’ concerns, by providing accurate, verifiable, and transparent financial information.

Therefore, the study is based on two theories; Agency Theory and Stakeholder Theory that together explain the proposed governance–audit framework (Brower & Mahajan, 2013; Jensen & Meckling, 1976, 1979; Secundo et al., 2023; Van Puyvelde et al., 2012). From this point of view, conflicts of interest between managers and shareholders can occur because managers may have personal interests that are different from the goals of the organization (Jensen & Meckling, 1976). By enhancing monitoring, mitigating information asymmetry, and curbing managerial opportunism, board independence is an important governance mechanism. As a result, it is believed that independent boards will create and monitor more efficient internal control systems and that this relationship between independent boards and internal control will have a theoretical basis. Reliable control procedures, enhanced risk assessment and effective, objective audit activities are further reinforced by strong internal control systems, which support high-quality internal auditing. In addition, Agency Theory also implies that internal controls have a direct and positive impact on decreasing the amount of errors, fraud, and earnings manipulation, thereby improving the quality of financial reporting, and the effectiveness of the internal audit function directly strengthens this governance process by providing an independent evaluation of the effectiveness of the internal control function and ensuring financial information reliability. Based on this, it can be said that the quality of internal audits serves as an important governance mechanism that increases financial reporting quality. To complement this view, Stakeholder Theory states that corporations are responsible not just to shareholders but to all stakeholders that rely on clear and honest financial data. In this perspective, board independence, good ICL and IAQ all contribute to corporate accountability, transparency and trust, as internal audits help to ensure that the financial statements present the corporation's performance in a faithful manner. Hence, the Agency Theory coupled with the Stakeholder Theory provides a strong conceptual platform to model the relationship between governance and audit mechanisms and enhance the FRQ within financial institutions.

The quality of the internal audit enhances the quality of the assurance function, thus helping to improve the financial reporting process through reliable verification and compliance (Al-Qadasi et al., 2025; Bello et al., 2018; Christofi et al., 2008). Well-designed ICL systems also enhance the quality of the financial reporting process by helping to prevent misstatements and/or irregularities from occurring. As such, the quality of the internal audit serves as the primary transmission channel through which ICL affect reporting outcomes, through the evaluation and enhancement of the effectiveness of the controls; and support for the overall increase in trust and accountability around the financial information being disclosed. Framework of the study is reported in Figure 1.

Despite ongoing regulatory reforms, financial institutions of Pakistan continue to face significant governance challenges in aligning their board independence practices with internationally recognized standards of corporate governance. Therefore, this study investigates the relationship between board independence, internal control (ICL), internal audit quality (IAQ), and financial reporting quality (FRQ) in financial institutions of Pakistan. This idea was developed based on Principal-Agent Theory and the Stakeholder Theory to analyze how governance mechanisms affect how well organisations report and are ultimately held accountable for their actions, especially in areas of strict regulation. A survey of 392 audit professionals from financial institutions in southern Punjab was conducted and the data analysed using structural equation modeling. Board independence is shown to significantly improve the effectiveness of ICL when providing oversight of corporate governance systems; therefore, the importance of independent boards in improving the effectiveness of governance systems cannot be overstated. ICL has a strong and positive impact on IAQ, as well as a direct impact on FRQ. IAQ has a significant positive impact on the FRQ and is critical to ensuring that financial statements are accurate, reliable and transparent. Both types of results provide support for the view that IAQ plays a partial mediating role in the relationship between ICL and FRQ. As a result, the mechanism of governance and the mechanism of control, through IAQ, both have a direct and indirect impact on the quality of financial reporting. Overall, the study demonstrates that independent boards, strong control systems, and high-quality internal audits substantially contribute to improving the quality of financial reporting.

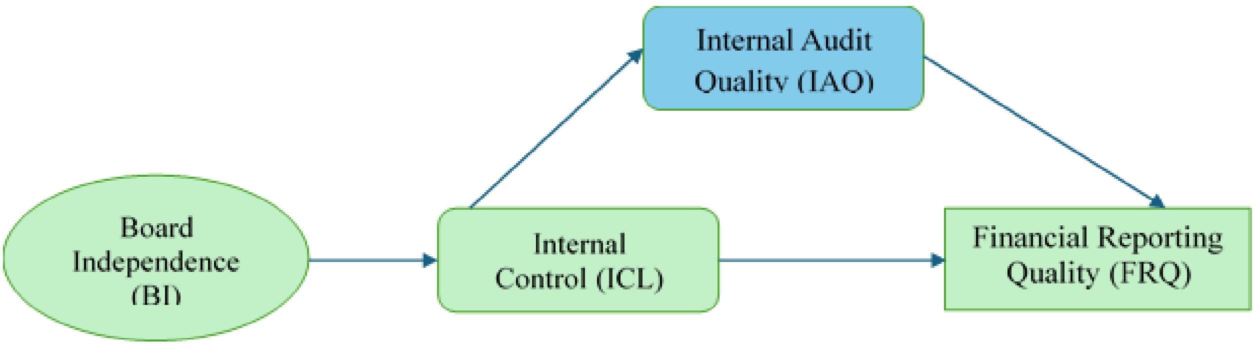

Figure 1: Framework of the Study

2.2 Board Independence and Internal Control

Board independence is the percentage of board members who are non-executive and independent and therefore do not have any managerial conflicts of interest or personal relationships that would impede the objectivity of their decision-making (Gani et al., 2026; Yahaya, 2026). ICL in this case, is the systematic establishment of policies, the execution of procedures, and the implementation of control mechanisms that help achieve goals in the area of reliable financial reporting, efficient operations, and compliance with regulations. In the case of financial institutions, and especially in the case of Pakistan, as a country where banks are regulated with strict prudential regulations, the governance issue that concerns the intersection of board independence and ICL is of high significance (Gani et al., 2026).

Agency theory places particular importance on board independence as a central governance mechanism to resolve the managerial and shareholder conflict of interest (Dong et al., 2021; Glinkowska & Kaczmarek, 2015; Van Puyvelde et al., 2012). Independent directors are believed to be less captured by management and, thus, are likely to be better monitors of managerial discretion and better at earnings management and/or fraudulent financial reporting. When board members are predominantly independent, they may enhance the control over the organisation's ICL and audit system; hence, fewer agency issues and higher credibility of financial reporting.

Hypothesis 1. Board independence has a significant effect on ICL.

2.3 Mediating role of Internal Audit Quality between Internal Control and Financial Reporting Quality

ICL encompasses the various policies, procedures, and processes implemented across all organisational levels, designed to allow the organisation to provide accurate and compliant financial reports, protect its assets, improve operational efficiency, and adhere to organisational mandates (Lai et al., 2026). FRQ encompasses the fact that financial reports should give an organisation's financial performance and position an accurate, reliable, transparent, and relevant depiction and/or account of that organization (Chung & Hwang, 2025; Ud Din & Nazneen, 2026). In the financial sector of Pakistan, particularly in financial institutions, due to the various credit, operational, and regulatory risks and the possibilities of weaker (and/or lax) controls resulting in misreporting, fraud, and reputational damage

Fakhfakh and Jarboui (2022) define IAQ as the effectiveness, independence, competence, and trustworthiness of the internal audit function in evaluating, administering, and enhancing ICL systems, risk management, and governance frameworks of an organisation. Quality internal auditing is marked by competent, balanced, and professional evaluations and systematic audit plans. FRQ is the clarity, precision, transparency, and promptness of reporting, and all the elements of a financier's statement that speaks to the real-time financial standing of the organization (Kaawaase et al., 2021; Maigoshi, 2014). In Pakistan's financial landscape, considering the complex operational and regulatory risks, IAQ becomes crucial in maintaining financial reports' integrity in Pakistan.

Ud Din and Nazneen (2026) highlighted that ICL involves developing a system of policies, procedures, and technologies to ensure organisational structures, operational effectiveness, and regulatory compliance (safeguarding against operational losses and improving the effectiveness of reporting). The IAQ is the extent to which the internal audit function is effective and independent, and the extent to which the internal audit function is objective and competent, and the internal audit function improves and assesses control frameworks, risk advocacy, and constructive governance). About submitting reports, the FRQ is how reliable, transparent, timely, and accurate it is for reporting stakeholders to make effective decisions. In Pakistan, financial institutions' ICL create frameworks for reliable financial reporting; however, the effectiveness of integrated financial reporting frameworks often hinges on the IAQ that is internal. Hence, IAQ is stated to be a mediator concerning ICL and FRQ. Therefore, IAQ is postulated to mediate the relations of ICL to FRQ; that is, ICL and FRQ explicate formal control structures.

Hypothesis 2. ICL has a significant effect on IAQ.

Hypothesis 3. IAQ has a significant effect on FRQ.

Hypothesis 4. ICL has a significant effect on FRQ.
Hypothesis 5. IAQ mediates the relationship between ICL and FRQ.

3. Methodology

The present research analyses audit professionals employed by financial institutions, including commercial banks and other regulated entities, in southern Punjab, Pakistan. Auditors are a unit of analysis with particular relevance because they provide evaluation of the ICL systems and independent evaluations of the corporate governance structures, including the financial reporting processes. From an Agency Theory perspective, auditing represents a critical mechanism that reduces asymmetry of information and minimizes conflicts between principals and agents. Auditors employed in financial institutions in southern Punjab are expected to have expert and informed judgments concerning the quality of the financial reporting process due to their ability to evaluate board competence; the effectiveness of ICL systems; and the quality of internal audit. Auditors in Southern Punjab financial institutions are assumed to have a well-founded, professional opinion on the board independence, ICL, IAQ, and FRQ.

The target population for this research was include internal auditors, external auditors, audit managers and senior audit officers employed in commercial banks and financial institutions throughout the major districts of southern Punjab. The target population consisted of those who are involved with the implementation, monitoring and evaluation of audit practices and ICL systems and, therefore, represent a relevant source of information to conduct an assessment of the quality of governance and its impact on financial reporting. Much of the literature in this area of study indicates that incorporating auditor perspectives is necessary due to auditors' technical expertise and direct involvement with the reporting process. The sample size for this study was 382 respondents.

Therefore, this study was conducted with the target population of internal auditors, external auditors, audit managers and senior audit officers of the commercial banks and regulated financial institutions of the major districts of southern Punjab, Pakistan. The professionals were chosen because of their firsthand experience and exposure to the corporate governance processes, internal audit practices, financial reporting processes, and internal control systems. The questions were structured and administered to the respondents who had relevant professional experience, by purposive sampling. Out of a total of 800 questionnaires, 392 questionnaires were found to be complete and valid and were retained for the final analysis. This sample size meets the minimum requirement needed for PLS-SEM analysis and the sample size is adequate for testing the research model in this study.

Scale items for board independence are adapted from Kaawaase et al. (2021), ICL are adapted from Ondieki (2013), IAQ are adapted from Kaawaase et al. (2021) and FRQ are adapted from Ondieki (2013). The total number of returns that qualified as valid for analysis amounted to 392. The analysis was performed through the application of Partial Least Squares Structural Equation Model (PLS-SEM) analysis method; as a means of establishing predictive power or theory development (i.e., to establish how these variables exist relative to one another) using multiple variables to predict other variables and therefore represent the behavioral model of thought. The development process engaged two steps in establishing the predictability of the model - first the measurement model and secondly the structural model. In Addition, this study conisdered full collinearity by using Variance Inflation Factor (VIF) and all values were found less than 3.3 (Hameed et al., 2020).

4. Data Analysis and Findings

4.1 Demographic Profile of Respondents

The demographic profile of the respondents indicates that the sample comprised both male and female professionals, with male respondents representing a relatively larger proportion of the sample. Most respondents belonged to the economically active age groups and possessed at least a bachelor's or master's degree, reflecting the educational qualifications required for audit and financial management positions. The respondents occupied various professional roles, including internal auditors, external auditors, audit managers, and senior audit officers, ensuring representation from different levels of organizational responsibility. In terms of professional experience, the majority had several years of experience in auditing and financial reporting, indicating that they possessed sufficient expertise to evaluate governance and audit practices. Furthermore, the respondents were drawn from a diverse range of financial institutions, including commercial banks and other regulated financial organizations, thereby providing a broad representation of Pakistan's financial sector and enhancing the credibility of the study findings.

4.2 PLS-SEM Results

The analysis of PLS-SEM is comprised of two phases. The first phase is referred to as the measurement model (or outer model) assessment, and the second phase is called the structural model (or inner model) assessment (Hair et al., 2017; Zhang, 2009). Both components of PLS-SEM are assessed separately, to provide evidence of the robustness and reliability of the results that are produced from PLS-SEM. The focus of the measurement model assessment is on determining the reliability and validity of the constructs being evaluated in terms of how latent variables correlate with their observed (indicator) variables (i.e., assessing the conceptual relationship). The measurement model assessment allow the researcher to evaluate/internal consistency reliability; convergent validity; discriminant validity to show that the indicator variables are representative of their respective constructs (Edeh et al., 2023; Sheeba & Christopher, 2024).

After the measurement model assessment demonstrates acceptable measurement quality, the researcher can conduct an analysis with the structural model (García-Fernández et al., 2018). The goal of the structural model assessment is to test the proposed relationships among the latent constructs by evaluating the magnitude of the path coefficients and by determining whether or not the path coefficients are statistically significant, and to what degree the proposed relationships are capable of explaining (i.e., providing an R^2 value) the level of variance associated with their respective construct. The researcher also determined if the relationships between constructs are positively or negatively correlated. By using a two-step process, PLS-SEM allows for both measurement accuracy and theoretical validation (Alarcón et al., 2015; Kock, 2015). The measurement model and structural model assessments described in detail in the following sections in order to demonstrate the validity of the proposed research framework.

Table 1
Convergent Validity

Construct	Item	Factor Loading	Cronbach's Alpha	CR	AVE
Board Independence (BI)	BI1	0.812	0.842	0.904	0.759
	BI2	0.879			
	BI3	0.901			
Internal Control (ICL)	ICL1	0.781	0.903	0.925	0.672
	ICL2	0.824			
	ICL3	0.851			
	ICL4	0.807			
	ICL5	0.842			
	ICL6	0.799			
Internal Audit Quality (IAQ)	IAQ1	0.823	0.918	0.936	0.709
	IAQ2	0.847			
	IAQ3	0.879			
	IAQ4	0.861			
	IAQ5	0.834			
	IAQ6	0.812			
Financial Reporting Quality (FRQ)	FRQ1	0.801	0.889	0.918	0.691
	FRQ2	0.842			
	FRQ3	0.865			
	FRQ4	0.828			
	FRQ5	0.829			

Note: BI = Board Independence, ICL = Internal Control, IAQ = Internal Audit Quality, FRQ = Financial Reporting Quality

Construct reliability was assessed using Cronbach's Alpha and Composite Reliability (CR) (Trompenaars et al., 2005). All constructs had values greater than 0.70, as shown by the CR values ranging from 0.904 - 0.936 (high internal consistency). Internal consistency was also confirmed by the range of Cronbach's Alpha values (0.842 - 0.918), showing that the measurement items consistently measure what they were supposed to represent. Convergent validity is assessed using factors and average variance extracted (AVE), both of which were evaluated directly. All factor loadings were above the acceptable minimum threshold of 0.70, with items significantly loading on their respective constructs. The AVE values ranged from 0.672 to 0.759 and exceeded the minimum criterion of 0.50, confirming sufficient convergent validity. These results are reported in Table 1 and Figure 2.

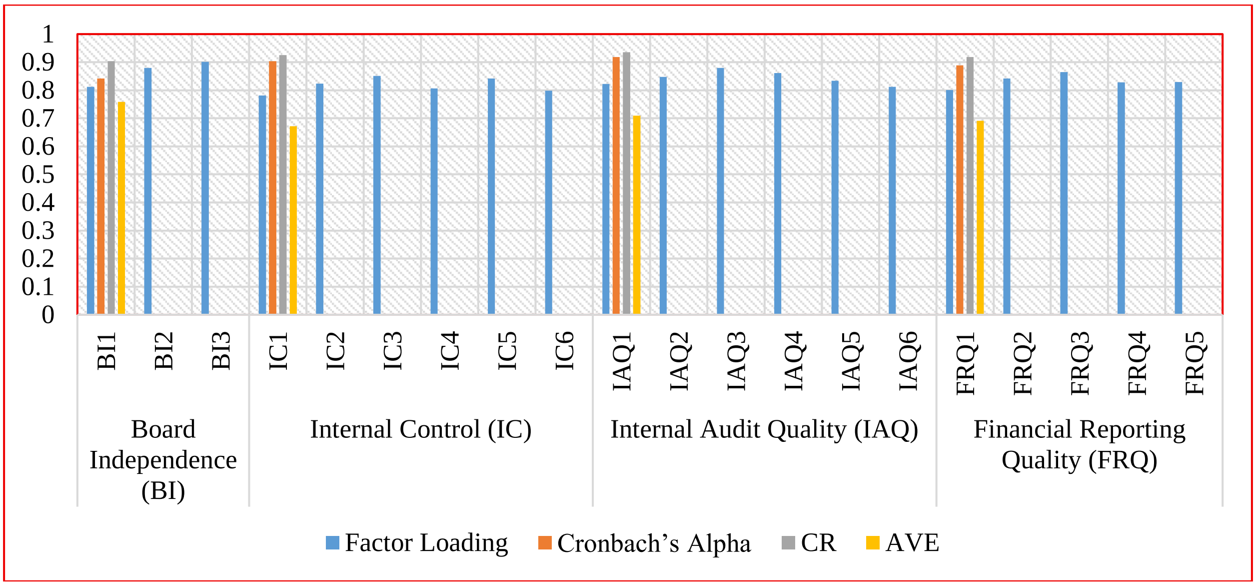

Figure 2: Convergent Validity

Discriminant validity guarantees that there is no relationship between constructs that are not supposed to be related; this represents an essential component of construct validity and ensure that your construct measures exactly what it says, while also not overlapping other distinct constructs (Dirgiatmo, 2023). Discriminant validity is measured using Heterotrait-Monotrait ratio (HTMT). All HTMT values fall below the conservative threshold of 0.85, which confirms that all constructs in this study are separate from one another in empirical terms (Alarcón et al., 2015; Hafkesbrink, 2021). It can therefore be concluded from these findings that the board independence, ICL, IAQ, and FRQ constructs are measuring four different conceptual domains as shown in Table 2.

Table 2
HTMT

Constructs	**BI**	**ICL**	**IAQ**	**FRQ**
BI	—			
ICL	0.621	—		
IAQ	0.584	0.732	—	
FRQ	0.552	0.701	0.768	—

Note: BI = Board Independence, ICL = Internal Control, IAQ = Internal Audit Quality, FRQ = Financial Reporting Quality

The analysis shows evidence to support the hypothesis that board member independence has a positive and substantial impact on the effectiveness of an organization's ICL ($\beta = 0.612$), with evidence of statistically significant t statistics ($t = 11.284$, $p < 0.001$). Therefore, as board members are more independent, this leads to better monitoring of and governance for organizations that have established their ICL systems. Additionally, this finding supports the inference that independent boards lead to improved monitoring and governance of financial institutions. Furthermore, the findings also demonstrate that, through the presence of effective ICL, the IAQ is substantially affected by the effectiveness of an organization's ICL ($\beta = 0.689$, $t = 13.917$, $p < 0.001$). This is indicated, largely, by the large t statistics being produced. As such, strong ICL systems provide a solid base to improve the audit processes and provide for improved IAQ. Moreover, there is a positive and statistically significant relationship between IAQ and FRQ ($\beta = 0.521$, $t = 9.876$, $p < 0.001$), demonstrating that if IAQ–improved through the effectiveness of an organization's ICL–is improved, this results in more accurate, transparent and reliable financial statements. Consequently, this result supports the need for internal auditors as they convey financial integrity to an organization. Effective ICL has a direct positive effect on FRQ ($\beta = 0.318$, $t = 5.742$, $p < 0.001$); however, significantly weaker than that produced by the direct relationship between IAQ and FRQ. Thus, effective ICL will contribute to the accuracy and transparency of an organization's financial reports by minimizing any errors in the financial reports and increasing compliance with applicable external regulations. Economic mediation exists between the influence of ICL on FRQ through IAQ, as validated by the strength of the indirect relationship ($\beta = 0.359$, $t = 8.463$, $p < 0.001$) in support of H5. Results are reported in Table 3 and Figure 3.

Table 3
Results

Hypothesis	Relationship	Beta (β)	t-value	p-value	Decision
H1	BI → ICL	0.612	11.284	0.000	Supported
H2	ICL → IAQ	0.689	13.917	0.000	Supported
H3	IAQ → FRQ	0.521	9.876	0.000	Supported
H4	ICL → FRQ	0.318	5.742	0.000	Supported
H5	ICL → IAQ → FRQ (Mediation)	0.359	8.463	0.000	Supported

Note: BI = Board Independence, ICL = Internal Control, IAQ = Internal Audit Quality, FRQ = Financial Reporting Quality

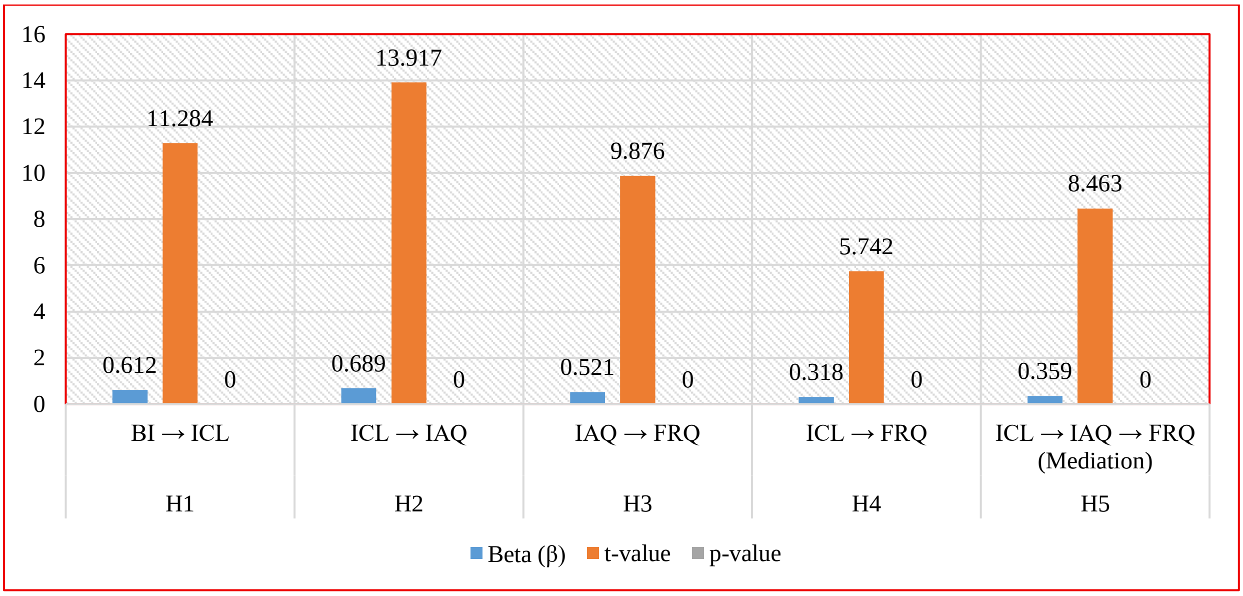

Figure 3. Graphical Presentation of the Findings

Moreover, this study examined f-square (f^2) to check the effect of independent variables on dependent variables. Most of the f^2 was found small and moderate, which proved the significant effect. On the other hand, variance explained was examined by using r-square (R^2) values which was found moderate. Additionally, q-square (Q^2) was found above zero which highlighted the satisfactory quality of the model.

5. Discussion

The aim of this research is to investigate the link between ICL, board independence, IAQ and FRQ. The results of this research demonstrated very strong empirical support for the proposed relationships among these four variables. First, there is a significant positive relationship between board independence and ICL ($\beta = 0.612$, $t = 11.284$) showing the vital role that independent board members play in governance. This is consistent with agency theory which suggests that an increase in the number of independent directors will improve the monitoring mechanism and decrease the potential for managerial opportunism. Independent boards appear to enhance ICL systems (within financial institutions) by improving transparency, accountability and compliance with regulatory requirements (Dong et al., 2021; Forster et al., 2025; Jensen & Meckling, 1976, 1979).

Moreover, the results indicated that ICL has a positive and significant effect on IAQ (β = 0.689, t = 13.917). This finding further confirms that ICL systems form the foundation of effective internal audit functions. By having well-structured ICL, auditors can rely on the processes to perform their duties efficiently and objectively, follow clear guidelines and have the necessary resources. These findings are consistent with earlier studies that have identified ICL systems as critical elements of improving audit quality and organizational oversight (Barr-Pulliam et al., 2022; Gunn et al., 2023; Lisic et al., 2019). According to the findings, the hypothesized relationship between IAQ and FRQ (β = 0.521; t = 9.876) suggests that when there is higher IAQ, the reliability and credibility of financial reporting (FRQ) is enhanced by internal audit function. Internal auditors provide assurance that financial statements contain no material misstatements and conform to applicable standards. The results emphasize the need for organizations to invest in IAQ as an important determinant of financial reporting integrity in high-regulated environments.

Furthermore, ICL has been demonstrated to also have a direct and positive impact on FRQ (β = 0.318; t = 5.742). Organizations with effective ICL systems may be better equipped to provide reliable and accurate financial reports than others. However, the lower beta value compared with the indirect path illustrates that part of the impact of ICL is mediated by IAQ. The mediation analysis reveals that IAQ is a partial mediator of the relationship between ICL and FRQ (β = 0.359; t = 8.463). This suggests that while there is a direct impact of ICL on FRQ, much of the impact of ICL on FRQ flows through IAQ. These findings give additional insight into how the governance and control systems facilitate better outcomes in financial reporting (Abbott et al., 2016).

Therefore, it is found that board independence has positive effect on internal control. If ineffective internal control systems are engineered, then the simple presence of independent directors on a board might stifle the board's ICL systems. This lack of significance is due to the fact that effective ICL systems are sustained when there is a mechanism in place to evaluate and act (intervene) on those internal control systems. Independence (of directors) alone does not suffice. Independent directors typically act in a supervisory (evaluative) capacity and thus do not work directly in the conception, implementation, or redesigning of those control systems. Therefore, an absence of active participation in the internal control systems by independent directors does not guarantee that internal control systems would be improved. In essence, this narrows down the internal control systems in any organization to the interrelationship between control (independence) and control (expertise) in organizational governance (Harasheh & Provasi, 2023). Overall, the results highlight a sequential process in which board independence strengthens internal control, internal control enhances IAQ, and IAQ, in turn, improves FRQ. The study contributes to the literature by integrating governance and auditing perspectives into a unified framework, demonstrating how internal organizational mechanisms collectively enhance FRQ.

6. Conclusion

This study examined the relationships among board independence, internal control, internal audit quality, and financial reporting quality in Pakistan's financial institutions. The results show that board independence has a significant effect on the ICL, thereby positively influencing the IAQ and FRQ. The findings also show that the IAQ has a partial mediating effect between ICL and FRQ, thus providing evidence of the significant role internal audit plays in bridging good ICL with transparent and reliable financial reporting. The results of these findings offer empirical evidence of the workings of Agency Theory and Stakeholder Theory, as a set of governance mechanisms and audit mechanisms work together to enhance organizational accountability. The study adds to the field of corporate governance through its conceptual unifying of the key variables of board independence, ICL, IAQ and FRQ, and its validation of the proposed relationships in an emerging economy. The results also offer practical advice to regulators, policy makers, boards of directors, audit committees, and financial institutions, underscoring the need for "coordinated investments" in governance structures, effective internal control systems, and high-quality internal audit functions to achieve sustainable improvements in financial reporting.

6.1 Implications of the Study

This research has implications for theory and practice. It expands on agency theory by showing that independent boards influence the quality of financial reporting indirectly through internal control and IAQ. It also adds to the literature related to auditing by showing that IAQ serves as a mediating mechanism between governance structures and improved reporting results. Practically, the study encourages regulators and policymakers to support the development of independent boards to enhance an institution's internal governance systems. Boards of directors at financial institutions should make the appointment of independent directors a priority in order to enhance their oversight and control processes. Additionally, organizations should also invest in creating strong internal control systems because they will directly improve FRQ as well as enhance the effectiveness of internal audits. Finally, audit committees and management should work to improve the IAQ by ensuring that auditors are independent, competent and have sufficient resources available. Enhancing IAQ will significantly increase the credibility of financial statements and, in turn, improve stakeholder confidence. Overall, this research provides practical guidance to enhance governance, auditing practices and financial transparency at financial institutions.

6.2 Limitations and Future Directions

The study has numerous limitations, however. First, the reliance on cross-sectional data limits the ability to discern causal relationships between the variables. Future studies may use longitudinal designs in order to capture causal relationships that unfold over time. Second, the study is limited in generalizability across other industries due to its focus on financial institutions and their employees' perceptions; therefore, other researchers may want to replicate the model used in this study in other industries and in different countries for further validation of the findings. Third, because the constructs utilized in this study were measured solely through perceptual measures (i.e., self-reported measures of audit quality and reporting quality), there is the potential for bias introduced by respondents' perceptions of these variables. Future research should also include objective financial data or archival measures as alternate methods of measuring audit quality and reporting quality. Other potential future areas for exploration could include identifying and examining the existence of any moderating variables such as organizational culture or regulatory environment that may influence the relationships among audit quality, reporting quality, and financial institution performance measurements. Finally, the study was conducted exclusively among financial institutions located in Southern Punjab, Pakistan. Although this region represents an important financial market, the findings may not fully reflect governance and auditing practices in other provinces or countries. Future research should include broader geographical coverage to improve the generalizability of the results.

Author Contributions

Abdul Sattar Zahoory: was responsible for conceptualizing the study, conducting the research, and writing the full draft of the manuscript. **Waseem Ul Hameed:** contributed by supervising, proofreading the manuscript, ensuring linguistic, formatting accuracy and revised the manuscript based on comments. All authors reviewed and approved the final version of the manuscript.

Competing interests

The authors declare no competing interests.

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