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The Mediating Effect of Corporate Social Responsibility in the Relationship between Internal Control and Firm Financial Performance: Evidence from Non-Listed Firms in Pakistan

Muhammad Ashraf

*PhD Scholar, Department of Business Administration
[Gomal University, D I Khan], Pakistan*

Correspondence: muhammadashrafucc@gmail.com**Dr. Amanullah Khattak**

*Professor, Department of Business Administration
[Gomal University, D I Khan], Pakistan*

Correspondence: amanu_khattak@hotmail.com**Dr. Khalid Rehman**

*Associate Professor, Department of Business Administration
[Gomal University, D I Khan], Pakistan*

Correspondence: khalidrehman@gu.edu.pk**Dr. Muhammad Waseem Quershi**

*Assistant Professor, Department of Business Administration
[Gomal University, D I Khan], Pakistan*

Correspondence: wasimqureshipp@gmail.com**Abstract**

This study investigates whether corporate social responsibility (CSR) mediates the relationship between internal control quality and firm financial performance among non-listed firms operating in Pakistan. Internal control is conceptualized through the COSO (2013) Internal Control - Integrated Framework and the governance-monitoring logic underlying the Sarbanes-Oxley Act (2002), and is measured through a primary-data survey instrument administered on a five-point Likert scale to finance, audit, and compliance managers. CSR engagement is similarly captured through a validated Likert-scale instrument covering economic, legal, ethical, and philanthropic dimensions. Firm financial performance is operationalised through three secondary-data accounting- and market-based indicators - return on assets (ROA), return on equity (ROE), and Tobin's Q - averaged over a ten-year window to smooth short-term volatility. Grounded in agency theory, stakeholder theory, legitimacy theory, and the resource-based view, the study proposes and tests a mediation model in which internal control strengthens financial performance directly and indirectly through enhanced CSR engagement. Data collected from a stratified sample of non-listed manufacturing and services firms were analysed using Partial Least

Squares Structural Equation Modelling (PLS-SEM) in SmartPLS 4, supplemented by bootstrapped mediation analysis. The findings are expected to extend internal control and CSR theory to the under-researched non-listed firm context in an emerging Islamic economy, and to offer practical guidance to regulators, boards, and managers on strengthening governance-CSR-performance linkages beyond listed-firm settings.

Keywords

Internal control, COSO framework, Sarbanes-Oxley, corporate social responsibility, financial performance, ROA, ROE, Tobin's Q, non-listed firms, Pakistan, PLS-SEM, mediation analysis

1. Introduction

Corporate governance failures over the past three decades have repeatedly demonstrated that weak internal control systems expose firms to financial misstatement, fraud, and value destruction, prompting regulators worldwide to codify control expectations through frameworks such as the Committee of Sponsoring Organizations of the Treadway Commission's (COSO, 2013) Internal Control - Integrated Framework and, in the United States, the Sarbanes-Oxley Act (SOX, 2002). While the listed-firm literature on internal control and financial performance is now well developed, non-listed firms - which constitute the overwhelming majority of registered enterprises in emerging economies such as Pakistan - remain comparatively under-examined, despite facing similar control and legitimacy pressures without the disclosure discipline imposed by stock-exchange listing.

Parallel to the internal control literature, corporate social responsibility (CSR) has emerged as a central mechanism through which firms manage stakeholder relationships, build legitimacy, and translate governance quality into competitive advantage. Firms with stronger internal control systems are argued to possess the monitoring capacity, resource discipline, and risk-oversight structures necessary to design and sustain credible CSR programmes, which in turn generate reputational, relational, and risk-mitigation benefits that feed through to financial performance. However, the mechanism by which internal control quality translates into financial outcomes - specifically, whether CSR engagement operates as a mediating pathway - has rarely been tested empirically among non-listed firms in an Islamic, emerging-market setting such as Pakistan.

1.1 Problem Statement

Non-listed firms in Pakistan operate under weaker external monitoring than listed counterparts, yet they account for a substantial share of employment, tax revenue, and economic output. Existing internal control-performance studies rely disproportionately on secondary, listed-firm data and rarely incorporate CSR as an explanatory mechanism, leaving a theoretical and empirical gap regarding how internal control quality is converted into financial performance in the absence of capital-market discipline. This study addresses that gap by testing CSR as a mediating variable using a mixed-methods design that combines primary survey data on internal control and CSR with secondary accounting- and market-based performance data.

1.2 Research Objectives

(i) To examine the direct effect of internal control quality (COSO- and SOX-aligned) on firm financial performance (ROA, ROE, Tobin's Q) among non-listed firms in Pakistan; (ii) to examine the direct effect

of internal control quality on CSR engagement; (iii) to examine the direct effect of CSR engagement on firm financial performance; and (iv) to test the mediating role of CSR in the internal control-financial performance relationship.

1.3 Research Questions

RQ1: Does internal control quality significantly affect the financial performance of non-listed firms in Pakistan? RQ2: Does internal control quality significantly affect CSR engagement? RQ3: Does CSR engagement significantly affect financial performance? RQ4: Does CSR mediate the relationship between internal control quality and financial performance?

1.4 Significance of the Study

Theoretically, the study extends agency, stakeholder, legitimacy, and resource-based-view logics to the non-listed firm context and clarifies the mediating mechanism linking control quality to performance. Practically, the findings offer boards, audit committees, and regulators evidence-based guidance on how strengthening internal control - through CSR - can enhance financial outcomes even where formal listing-based disclosure discipline is absent, a matter of direct relevance to SECP policy on private-firm governance in Pakistan.

1.5 Contextual Background: Non-Listed Firms in Pakistan

Pakistan's corporate landscape is overwhelmingly composed of non-listed entities: fewer than five hundred companies are listed on the Pakistan Stock Exchange, while several hundred thousand companies are registered with the Securities and Exchange Commission of Pakistan (SECP) as private limited or single-member companies, alongside a large population of partnerships and sole proprietorships operating outside formal company law altogether. These non-listed firms span manufacturing (textiles, food processing, light engineering, pharmaceuticals) and services (trading, logistics, professional services, education, healthcare), and collectively account for a substantial share of private-sector employment and GDP contribution. Because non-listed firms typically rely on bank financing, family and retained capital, and trade credit rather than public equity, they face fewer externally imposed governance requirements, yet remain exposed to the same categories of operational, financial, and compliance risk that internal control frameworks are designed to mitigate. Understanding how internal control quality and CSR jointly shape financial performance in this setting therefore has direct relevance not only to academic governance theory but to SECP policy discussions on extending proportionate governance codes to large non-listed companies, and to development-finance institutions and commercial banks that rely on informal assessments of governance quality when extending credit to non-listed borrowers.

1.6 Scope and Organisation of the Study

The remainder of the article is organised as follows. Section 2 reviews the internal control, CSR, and financial performance literatures and develops the study's theoretical grounding and hypotheses. Section 3 presents the conceptual framework. Section 4 details the research methodology, including the mixed-methods design, sampling, instrumentation, and econometric specification. Section 5 reports the data analysis and results. Section 6 discusses the findings, Section 7 sets out theoretical and practical implications, Section 8 acknowledges limitations and future research directions, and Section 9 concludes.

2. Literature Review and Hypotheses Development

2.1 Internal Control: COSO and SOX Perspectives

Internal control is defined by COSO (2013) as a process, effected by an entity's board, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance. The COSO framework specifies five interrelated components - control environment, risk assessment, control activities, information and communication, and monitoring activities - which together provide the structural basis for measuring internal control quality in this study. The Sarbanes-Oxley Act (2002), enacted following major U.S. corporate governance failures, institutionalised internal control over financial reporting (Section 404) as a board- and management-level responsibility, and its underlying logic of independent verification and accountability has since diffused into corporate governance codes well beyond the United States, including the Pakistani Code of Corporate Governance. This study draws on both frameworks to operationalise internal control quality as a multidimensional Likert-scale construct spanning control environment, risk assessment, control activities, information/communication, and monitoring.

2.2 Corporate Social Responsibility

Carroll's (1979, 1991) pyramid conceptualises CSR as comprising economic, legal, ethical, and philanthropic responsibilities that together define a firm's total obligation to society. In emerging markets, CSR engagement has been shown to function simultaneously as a legitimacy-building device and a risk-management tool, particularly where formal institutional monitoring is weak. This study measures CSR engagement across Carroll's four dimensions using a validated five-point Likert instrument.

2.3 Firm Financial Performance

Financial performance is operationalised through three complementary indicators. Return on assets (ROA) captures overall efficiency in generating profit from the asset base; return on equity (ROE) captures the return generated on shareholders' invested capital; and Tobin's Q, computed for non-listed firms using an approximated market-to-book proxy based on replacement/book value of assets, captures a forward-looking, value-based dimension of performance that complements the backward-looking accounting ratios. Each indicator is computed as a ten-year firm-level average to reduce the influence of transitory shocks and better reflect sustained performance.

2.4 Theoretical Foundations

Agency theory (Jensen & Meckling, 1976; Fama & Jensen, 1983) frames internal control as a monitoring mechanism that reduces information asymmetry and aligns manager-owner interests, thereby protecting and enhancing firm value. Stakeholder theory (Freeman, 1984; Donaldson & Preston, 1995) explains why firms with strong internal governance extend accountability beyond shareholders to a broader stakeholder set through CSR. Legitimacy theory (Suchman, 1995; Dowling & Pfeffer, 1975) explains CSR as a response to societal expectations that secures the firm's continued license to operate, particularly salient for non-listed firms that rely on community, supplier, and regulator goodwill in the absence of capital-market visibility. The resource-based view (Barney, 1991) frames both internal control systems and CSR capability as valuable, rare, and difficult-to-imitate resources that generate sustained competitive advantage and, ultimately, superior financial performance.

2.5 Internal Control and Financial Performance

Firms with mature control environments are argued to experience fewer control failures, lower fraud losses, more efficient resource allocation, and stronger creditor and investor confidence, all of which support higher ROA, ROE, and Tobin's Q. Prior listed-firm evidence broadly supports a positive internal control-performance association, though the mechanism in non-listed, emerging-market firms remains comparatively untested.

H1: Internal control quality has a significant positive effect on firm financial performance.

2.6 Internal Control and CSR

Strong internal control provides the risk-assessment and monitoring infrastructure necessary to identify stakeholder-relevant risks, allocate resources credibly to CSR initiatives, and ensure CSR disclosures are reliable rather than symbolic. Firms with weaker control environments are more prone to CSR decoupling - announcing initiatives without underlying operational commitment.

H2: Internal control quality has a significant positive effect on CSR engagement.

2.7 CSR and Financial Performance

CSR engagement is theorised to enhance financial performance through improved reputation, stakeholder trust, employee commitment, customer loyalty, and reduced regulatory and reputational risk, consistent with stakeholder and legitimacy logics.

H3: CSR engagement has a significant positive effect on firm financial performance.

2.8 The Mediating Role of CSR

Integrating the preceding logics, this study proposes that internal control quality does not translate into financial performance solely through direct risk-reduction and efficiency channels, but substantially through the credible CSR engagement that strong control systems make possible. CSR is therefore modelled as a mediating, rather than merely a parallel, variable.

H4: CSR significantly mediates the relationship between internal control quality and firm financial performance.

2.9 Internal Control in Non-Listed and SME Contexts

Unlike listed firms, non-listed enterprises in Pakistan are not subject to mandatory Section 404-style internal-control-over-financial-reporting attestation, external auditor internal-control opinions, or continuous stock-exchange disclosure requirements. Internal control in this setting is therefore substantially a function of owner-manager commitment, board (where one exists) oversight culture, and voluntary adoption of professional accounting and audit practices rather than externally enforced compliance. This creates both a research opportunity - internal control quality varies more naturally across non-listed firms than across already-compliant listed firms - and a measurement challenge, since secondary indicators such as auditor-reported material weaknesses are largely unavailable, motivating this study's reliance on a validated primary-data Likert instrument administered to informed internal respondents (finance managers, internal auditors, and compliance officers) rather than external disclosure proxies.

2.10 CSR in Emerging and Islamic-Market Contexts

CSR research in emerging markets has increasingly emphasised that Western CSR constructs, while broadly transferable, acquire additional layers of meaning in Islamic-majority contexts such as Pakistan,

where philanthropic and ethical responsibility dimensions intersect with religiously grounded obligations (e.g., zakat, sadaqah, and broader Maqasid al-Shariah considerations of wealth circulation and social welfare). Firms operating in such contexts may experience CSR as simultaneously a governance-driven, stakeholder-driven, and culturally/religiously reinforced practice, potentially strengthening the internal control-CSR linkage relative to purely secular institutional settings, since credible CSR delivery is expected not only by regulators and investors but by employees, communities, and religious-normative reference groups.

2.11 Integrating the Direct and Mediated Pathways

Taken together, Sections 2.5 through 2.8 imply a dual-pathway model: internal control quality improves financial performance partly through a direct efficiency/risk-reduction channel (agency- and RBV-consistent) and partly through an indirect, CSR-mediated legitimacy/stakeholder-trust channel. Distinguishing these pathways empirically - rather than assuming a single undifferentiated internal control-performance relationship - is the central contribution this study seeks to make relative to prior non-listed-firm governance research, which has generally tested direct effects only.

2.12 Research Gap and Contribution of the Study

Three gaps in the existing literature motivate this study. First, the internal control-performance literature is overwhelmingly built on listed-firm, auditor-disclosure-based data (e.g., reported material weaknesses under SOX Section 404), which is structurally unavailable for non-listed firms; this study closes that measurement gap by developing and validating a primary-data, COSO/SOX-grounded Likert instrument suitable for non-listed-firm research. Second, CSR is frequently modelled as a parallel or moderating variable in governance-performance studies rather than as a mediating mechanism; by explicitly testing and decomposing direct and indirect (CSR-mediated) effects, this study clarifies how much of the internal control-performance relationship operates through CSR versus other channels. Third, empirical evidence on governance-CSR-performance linkages specifically among Pakistani non-listed firms - as distinct from the more heavily researched Pakistan Stock Exchange-listed firm literature - remains scarce, despite the practical and policy relevance of this firm population. This study's contribution is therefore threefold: instrumentation (a validated non-listed-firm internal control scale), theoretical integration (a multi-theory dual-pathway model combining agency, stakeholder, legitimacy, and resource-based-view logics), and context (novel non-listed, Islamic emerging-market evidence).

2.13 Hypotheses Summary Table

Table 1. Summary of Hypotheses, Underlying Theory, and Key Supporting Citations

Hypothesis	Statement	Underlying Theory	Key Citations
H1	Internal control quality → Financial performance (positive)	Agency Theory; RBV	Jensen & Meckling (1976); Fama & Jensen (1983); Barney (1991); COSO (2013)
H2	Internal control quality → CSR engagement (positive)	Agency Theory; Legitimacy Theory	Jensen & Meckling (1976); Suchman (1995); COSO (2013)
H3	CSR engagement → Financial performance (positive)	Stakeholder Theory; Legitimacy Theory	Freeman (1984); Donaldson & Preston (1995); Carroll (1991)
H4	CSR mediates Internal control → Financial performance	Stakeholder Theory; RBV; Agency Theory	Baron & Kenny (1986); Preacher & Hayes (2008); Barney (1991)

Note. RBV = Resource-Based View. Citations listed are the primary theoretical anchors; the full reference list in Section 10 should be cross-verified against the author's Zotero library prior to submission.

3. Conceptual Framework

Figure 1 (below, rendered as a structured table for print reliability) depicts the hypothesised mediation model: internal control quality (COSO/SOX-based, exogenous latent construct) affects firm financial performance (ROA, ROE, Tobin's Q, endogenous latent construct) both directly (H1) and indirectly through CSR engagement (mediating latent construct), which is itself predicted by internal control (H2) and predicts financial performance (H3). The combined indirect path constitutes the mediation effect tested under H4.

Table 2. Conceptual Framework - Path Structure

Path	From	To	Hypothesis	Relationship Type
a	Internal Control (COSO/SOX)	CSR Engagement	H2	Direct
b	CSR Engagement	Financial Performance (ROA/ROE/Tobin's Q)	H3	Direct
c (c')	Internal Control (COSO/SOX)	Financial Performance (ROA/ROE/Tobin's Q)	H1	Direct
a×b	Internal Control → CSR → Financial Performance	-	H4	Indirect / Mediation

Conceptually: Internal Control (Control Environment, Risk Assessment, Control Activities, Information & Communication, Monitoring) → [path a] → CSR (Economic, Legal, Ethical, Philanthropic) → [path b] → Financial Performance (ROA, ROE, Tobin's Q); with a direct path [c'] from Internal Control to Financial Performance estimated alongside the indirect path to test partial versus full mediation.

Note. A vector image (boxes-and-arrows diagram) can be inserted here in the final manuscript file using the journal's preferred drawing tool (e.g., Visio, PowerPoint, or draw.io export) in place of, or alongside, Table 2.

4. Research Methodology

4.1 Research Design

This study adopts a mixed-methods, explanatory, cross-sectional survey design combined with historical secondary-data extraction. Internal control quality and CSR engagement are measured through a primary-data questionnaire administered on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Firm financial performance is measured through secondary accounting and market data (ROA, ROE, Tobin's Q) averaged over the ten fiscal years preceding data collection. The two data streams are matched at the firm level, with the survey respondent (senior finance/audit/compliance officer) serving as the informant for the perceptual constructs of the firm to which the secondary performance data pertain.

4.2 Population and Sampling

The target population comprises non-listed manufacturing and services firms registered with the Securities and Exchange Commission of Pakistan (SECP) that are not listed on the Pakistan Stock Exchange. A stratified random sampling technique is used, with strata defined by sector (manufacturing vs. services) and firm size (SME vs. large non-listed enterprise), to ensure representativeness. Sample size is determined using Krejcie and Morgan's (1970) table / G*Power a priori power analysis for the anticipated PLS-SEM structural model, targeting a minimum of 10 observations per structural path per common PLS-SEM sample-size heuristics (Hair et al., 2019).

4.3 Instrumentation and Measurement

Table 3. Constructs, Dimensions, Item Sources, and Measurement Scale

Construct	Dimensions	No. of Items	Scale	Adapted From
Internal Control (IC)	Control Environment; Risk Assessment; Control Activities; Information & Communication; Monitoring	20 (4 per dimension)	5-point Likert	COSO (2013) Integrated Framework; SOX (2002) Section 404
CSR Engagement	Economic; Legal; Ethical; Philanthropic	16 (4 per dimension)	5-point Likert	Carroll (1979, 1991); adapted CSR scales used in prior emerging-market studies
Financial Performance	ROA; ROE; Tobin's Q	3 indicators, 10-year firm average each	Secondary / ratio data	Firm audited financial statements / SECP filings

ROA is computed as net income divided by total assets; ROE as net income divided by total shareholders' equity; and Tobin's Q, adapted for non-listed firms, as (book value of debt + estimated equity value) divided by book value of total assets, with estimated equity value approximated using an income- or asset-based valuation method disclosed in firm accounts or independent valuation reports, consistent with approaches used in prior non-listed-firm valuation literature.

4.4 Validity and Reliability

Content validity is established through expert-panel review and pilot testing. Construct reliability is assessed via Cronbach's alpha and composite reliability (CR), with a minimum threshold of 0.70; convergent validity is assessed via average variance extracted (AVE) with a minimum threshold of 0.50; and discriminant validity is assessed via the Fornell-Larcker (1981) criterion and the heterotrait-monotrait (HTMT) ratio, with HTMT required to remain below 0.85-0.90 (Henseler et al., 2015).

4.5 Common Method Bias

Given that internal control and CSR are both measured through the same respondent, common method bias is assessed using Harman's single-factor test and the full collinearity variance inflation factor (VIF) approach (Kock, 2015), with VIFs below the conservative threshold of 3.3 indicating that common method bias is unlikely to be a significant concern.

4.6 Econometric / Structural Model Specification

The structural relationships are estimated using Partial Least Squares Structural Equation Modelling (PLS-SEM) in SmartPLS 4, following Hair et al. (2019). The measurement (outer) and structural (inner) models are specified as follows:

Measurement model: $IC = f(\lambda_{IC1} \dots \lambda_{IC20}, \epsilon)$; $CSR = f(\lambda_{CSR1} \dots \lambda_{CSR16}, \epsilon)$; $FP = f(ROA, ROE, TobinQ)$

Structural model:

$CSR = \alpha_0 + \alpha_1(IC) + \epsilon_1$ [path *a*]

$FP = \beta_0 + \beta_1(IC) + \beta_2(CSR) + \sum \beta_k(Controls) + \epsilon_2$ [paths *c'* and *b*]

Indirect effect (mediation) = $\alpha_1 \times \beta_2$, tested via bootstrapping (5,000 resamples, bias-corrected and accelerated confidence intervals; Preacher & Hayes, 2008).

Control variables include firm size (log of total assets), firm age (years since incorporation), leverage (total debt / total assets), and sector (manufacturing = 1, services = 0), consistent with standard controls in the internal control-CSR-performance literature. As a robustness check, the structural relationships are additionally estimated via System Generalized Method of Moments (System GMM) using firm-level panel data underlying the ten-year performance averages, to address potential endogeneity and reverse causality between CSR and financial performance, following Arellano and Bond (1991) and Blundell and Bond (1998).

4.7 Data Collection Procedure

Primary data collection proceeds in three stages. In the pilot stage, the draft instrument is administered to 30-40 respondents drawn from firms outside the main sampling frame, with item-level and construct-level reliability checked before proceeding; items falling below acceptable loading or reliability thresholds are revised or dropped. In the main survey stage, self-administered questionnaires (paper-based and, where feasible, electronic) are distributed to identified respondents in sampled firms, following prior telephone or in-person introduction to secure firm-level cooperation, with follow-up reminders issued at two-week intervals to maximise response rate. In the matching stage, each responding firm's audited financial statements (or, where unavailable, management accounts verified through a secondary confirmatory source) for the preceding ten fiscal years are obtained, with firm-level ROA, ROE, and Tobin's Q computed and averaged, then matched to the corresponding survey response through the coded firm identifier.

4.8 Statistical Software and Analysis Strategy

Data screening, descriptive statistics, and reliability diagnostics are conducted in SPSS. The measurement and structural models are estimated in SmartPLS 4 following the two-stage evaluation procedure recommended by Hair et al. (2019): first assessing the measurement model (indicator loadings, internal consistency reliability, convergent and discriminant validity), then the structural model (path coefficients, R^2 , f^2 , Q^2 , and bootstrapped mediation). The System GMM robustness check is estimated in

Stata using the `xtabond2` command (Roodman, 2009). Reference management throughout the manuscript is conducted in Zotero using APA 7th edition citation style.

4.9 Ethical Considerations

Informed consent is obtained from all survey respondents, firm-level anonymity is preserved through coded identifiers, and secondary financial data are drawn only from firms whose respondents consented to matched data use. The study protocol follows the ethical review requirements of the researcher's affiliated institution.

5. Data Analysis and Results

Important note to the author: the values in every table in this section are illustrative placeholders formatted exactly as a W-category / Q1 journal would expect. They must be replaced with the actual output from your SmartPLS 4 / STATA / EViews analysis once field data collection and financial-statement extraction are complete. Do not submit this section to a journal with these numbers unchanged.

5.1 Respondent and Firm Profile

Table 4. Demographic and Firm Profile of Respondents (n = 320)

Category	Classification	Frequency	Percentage (%)
Sector	Manufacturing	182	56.9
	Services	138	43.1
Firm Size	SME (< 250 employees)	201	62.8
	Large non-listed enterprise	119	37.2
Respondent Position	Finance Manager	124	38.8
	Internal Audit / Compliance Officer	109	34.1
	CFO / Finance Director	87	27.1
Firm Age	< 10 years	78	24.4
	10-20 years	146	45.6
	>20 years	96	30.0

Table 4 shows that the achieved sample is reasonably balanced across sector and firm-size strata, with manufacturing firms and SMEs somewhat more heavily represented, consistent with the underlying SECP registration population. Respondents are concentrated among finance managers and internal audit/compliance officers, supporting the assumption that survey informants possess adequate firsthand knowledge of both internal control practice and CSR activity to respond meaningfully to the instrument.

5.2 Descriptive Statistics

Table 5. Descriptive Statistics of Study Constructs

Construct	Mean	Std. Dev.	Skewness	Kurtosis
Internal Control (IC)	3.86	0.612	-0.41	0.35
CSR Engagement	3.71	0.658	-0.33	0.28
ROA (10-yr avg, %)	7.42	3.15	0.22	-0.18
ROE (10-yr avg, %)	12.68	5.03	0.19	-0.24
Tobin's Q (10-yr avg)	1.14	0.287	0.31	0.11

Table 5 indicates that respondent firms report moderately high mean levels of internal control quality ($M = 3.86$) and CSR engagement ($M = 3.71$) on the five-point scale, with skewness and kurtosis values within the ± 2 range generally considered acceptable for parametric and PLS-based estimation (Hair et al., 2019). The ten-year-average performance indicators show a mean ROA of 7.42%, mean ROE of 12.68%, and mean Tobin's Q of 1.14 (values above 1.0 indicating that estimated firm value exceeds book asset value, on average, across the sample).

5.3 Measurement Model Assessment

Table 6. Reliability and Convergent Validity

Construct	Cronbach's Alpha	Composite Reliability (CR)	AVE
Internal Control	0.912	0.928	0.612
CSR Engagement	0.887	0.905	0.581
Financial Performance (formative index)	0.834	0.879	n/a (formative)

Note. Thresholds: Cronbach's alpha and CR ≥ 0.70 (Nunnally & Bernstein, 1994); AVE ≥ 0.50 (Fornell & Larcker, 1981).

Table 7. Discriminant Validity - Fornell-Larcker Criterion / HTMT Ratio

Construct	Internal Control	CSR Engagement	Financial Performance
Internal Control	0.782	-	-
CSR Engagement	0.512 / HTMT 0.601	0.762	-
Financial Performance	0.447 / HTMT 0.548	0.489 / HTMT 0.579	0.744 (composite index)

Note. Diagonal values are the square root of AVE; off-diagonal values are inter-construct correlations, with HTMT ratios reported alongside. All HTMT values fall below the 0.90 threshold (Henseler et al., 2015), supporting discriminant validity.

Table 7 confirms discriminant validity: each construct's square-root-of-AVE value on the diagonal exceeds its correlations with other constructs, and all HTMT ratios remain below the conservative 0.90 threshold, indicating that internal control, CSR, and financial performance are empirically as well as conceptually distinct constructs in this sample.

5.4 Structural Model and Hypothesis Testing

Table 8. Structural Path Coefficients (Direct Effects)

Path	Hypothesis	β (Std.)	t-value	p-value	Decision
Internal Control → Financial Performance	H1	0.284	4.512	0.000	Supported
Internal Control → CSR Engagement	H2	0.512	8.037	0.000	Supported
CSR Engagement → Financial Performance	H3	0.331	5.226	0.000	Supported

Table 9. Mediation (Indirect Effect) Analysis - Bootstrapped Results (5,000 resamples)

Path	Indirect Effect ($\alpha \times \beta$)	Boot SE	95% CI Lower	95% CI Upper	Mediation Type
IC → CSR → Financial Performance	0.169	0.031	0.112	0.232	Partial Mediation

Note. Since the 95% bootstrapped confidence interval does not straddle zero and the direct effect (H1) remains significant alongside the indirect effect, the result supports partial (complementary) mediation, in line with Baron and Kenny (1986) and Preacher and Hayes (2008).

Table 10. Coefficient of Determination (R^2), Effect Size (f^2), and Predictive Relevance (Q^2)

Endogenous Construct	R^2	Adjusted R^2	Q^2 (predict)	f^2 (key predictor)
CSR Engagement	0.262	0.259	0.181	0.347 (IC)
Financial Performance	0.318	0.312	0.213	0.112 (IC) / 0.147 (CSR)

Table 8 shows that all three direct structural paths are positive and statistically significant at the 1% level, supporting H1, H2, and H3. The internal control-to-CSR path ($\beta = 0.512$) is notably stronger than either the internal control-to-performance path ($\beta = 0.284$) or the CSR-to-performance path ($\beta = 0.331$), suggesting that internal control's most substantial contribution in this sample is to CSR capacity rather

than to financial performance directly. Table 9 shows that the bootstrapped indirect (mediated) effect of internal control on financial performance through CSR is positive and significant, with a 95% confidence interval that excludes zero, confirming H4. Because the direct effect (H1) also remains significant when CSR is included in the model, the pattern indicates partial (complementary) mediation rather than full mediation - internal control affects financial performance both directly and through CSR. Table 10 indicates that the structural model explains a meaningful share of variance in both CSR ($R^2 = 0.262$) and financial performance ($R^2 = 0.318$), with acceptable predictive relevance ($Q^2 > 0$) for both endogenous constructs, and with internal control exerting a medium-to-large effect size (f^2) on CSR and both predictors exerting small-to-medium effect sizes on financial performance.

5.5 Robustness Check - System GMM Panel Estimation

Table 11. System GMM Estimates (Dependent Variable: Financial Performance Composite Index)

Variable	Coefficient	Std. Error	z-statistic	p-value
Lagged Financial Performance (t-1)	0.312	0.084	3.71	0.000
Internal Control	0.241	0.069	3.49	0.000
CSR Engagement	0.198	0.058	3.41	0.001
Firm Size (log assets)	0.087	0.041	2.12	0.034
Leverage	-0.114	0.052	-2.19	0.029
Firm Age	0.019	0.015	1.27	0.204
Sector (Manufacturing = 1)	0.056	0.048	1.17	0.243

Note. Arellano-Bond AR(2) test $p = 0.417$ (no second-order serial correlation); Hansen J-statistic $p = 0.286$ (instruments valid). Number of instruments kept below the number of groups per Roodman (2009) guidance.

Table 11 corroborates the PLS-SEM findings using dynamic panel System GMM estimation on the underlying firm-year data: both internal control and CSR remain positive and significant predictors of the financial performance composite index after controlling for lagged performance, firm size, leverage, age, and sector, and after addressing potential endogeneity through internal instrumentation. The significant, negative coefficient on leverage is consistent with capital-structure theory suggesting that higher debt burdens constrain financial performance among non-listed firms with limited access to low-cost external financing. Diagnostic tests (Arellano-Bond AR(2), Hansen J-statistic) indicate no second-order serial correlation and valid instrumentation, supporting the reliability of the GMM estimates as a robustness check on the primary PLS-SEM results.

5.6 Summary of Hypothesis Testing Results

Table 12. Hypotheses, Path Results, and Decisions

Hypothesis	Relationship	β	p-value	Decision
H1	Internal Control → Financial Performance	0.284	0.000	Supported
H2	Internal Control → CSR Engagement	0.512	0.000	Supported
H3	CSR Engagement → Financial Performance	0.331	0.000	Supported
H4	CSR mediates Internal Control → Financial Performance	0.169 (indirect)	0.000	Supported (Partial Mediation)

6. Discussion of Findings

The results (Table 12) support all four hypotheses. Internal control quality exerts a significant direct positive effect on financial performance (H1, $\beta = 0.284$, $p < 0.001$), consistent with agency-theoretic expectations that stronger monitoring and risk-oversight structures reduce inefficiency and protect firm value even in the absence of listed-firm disclosure discipline. Internal control also significantly predicts CSR engagement (H2, $\beta = 0.512$, $p < 0.001$), the strongest path in the model, suggesting that the control environment, risk-assessment, and monitoring components of COSO (2013) provide the operational backbone on which credible CSR commitments are built - firms cannot sustain CSR programmes they cannot govern. CSR engagement, in turn, significantly predicts financial performance (H3, $\beta = 0.331$, $p < 0.001$), supporting stakeholder- and legitimacy-based arguments that CSR generates reputational and relational returns that show up in ROA, ROE, and Tobin's Q even for firms without public equity.

The mediation result (H4) indicates that CSR partially, rather than fully, mediates the internal control-performance relationship: roughly 37% of the total effect of internal control on financial performance in this illustrative estimation runs through CSR, with the remainder operating directly - plausibly through efficiency, fraud-prevention, and cost-of-capital channels not captured by the CSR construct. This partial-mediation pattern is broadly consistent with prior listed-firm evidence on governance-CSR-performance chains, while extending it to a non-listed, Islamic emerging-market context where CSR may carry additional legitimacy weight given Maqasid al-Shariah-aligned stakeholder expectations prevalent in Pakistan's business environment. The System GMM robustness check corroborates the PLS-SEM findings while addressing potential endogeneity, with both internal control and CSR remaining significant predictors of financial performance in the dynamic panel specification.

7. Theoretical and Practical Implications

7.1 Theoretical Implications

The study extends agency theory, stakeholder theory, legitimacy theory, and the resource-based view to the non-listed firm context, demonstrating that governance-performance mechanisms theorised

primarily for listed firms operate similarly, and CSR-mediated, among non-listed enterprises. It also contributes a validated COSO/SOX-based Likert instrument suitable for primary-data internal control research where secondary control-quality proxies (e.g., auditor-reported material weaknesses) are unavailable, as is typical for non-listed firms.

7.2 Practical and Policy Implications

For boards and managers of non-listed firms, the findings suggest that investment in internal control infrastructure yields returns both directly and through the CSR capacity it enables, supporting a business case for governance investment beyond regulatory compliance. For regulators such as the SECP, the results support extending governance-quality expectations, in a proportionate form, to non-listed firms, given the demonstrated performance benefits. For policymakers interested in Pakistan's broader sustainable-development and Islamic-finance agendas, the CSR mediation pathway suggests that governance reform and CSR promotion are complementary rather than competing policy levers.

8. Limitations and Directions for Future Research

This study is subject to several limitations. First, the cross-sectional design for the primary-data constructs limits causal inference, notwithstanding the System GMM robustness check on the panel performance data; a longitudinal survey design would strengthen causal claims regarding internal control and CSR. Second, common-method variance, though assessed and mitigated, cannot be entirely ruled out given that internal control and CSR are reported by the same respondent; future research could triangulate perceptual data with independent auditor or third-party CSR-rating assessments. Third, the non-listed firm sampling frame, while representative of registered SECP firms, may under-represent informal-sector enterprises that constitute a substantial share of Pakistan's economy. Future research could extend the model to informal firms, test additional mediators or moderators (e.g., Shariah governance, family ownership, digital transformation), and apply comparative analysis across other OIC or South Asian emerging markets.

9. Conclusion

This study set out to examine whether corporate social responsibility mediates the relationship between internal control quality and financial performance among non-listed firms in Pakistan. Using a mixed-methods design combining primary Likert-scale survey data on COSO/SOX-based internal control and CSR with secondary ten-year-average financial performance data (ROA, ROE, Tobin's Q), and analysing the resulting model via PLS-SEM with bootstrapped mediation testing and System GMM robustness checks, the study finds that internal control quality significantly and positively affects financial performance both directly and indirectly through CSR engagement, with CSR functioning as a partial mediator. These findings extend governance and CSR theory to an under-examined non-listed, emerging Islamic-market context, and offer actionable guidance for managers, boards, and regulators seeking to strengthen the financial performance of Pakistan's non-listed corporate sector through combined governance and CSR investment.

Appendix A: Survey Instrument (Five-Point Likert Scale)

Response options for all items: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

A.1 Internal Control (COSO/SOX-based) - Sample Items**Table A1. Internal Control Instrument Items by COSO Component**

Component	Sample Item
Control Environment	Top management demonstrates a clear commitment to integrity and ethical values in daily operations.
Risk Assessment	The firm formally identifies and assesses risks that could prevent achievement of its financial objectives.
Control Activities	Approval and authorisation procedures are consistently applied to all significant financial transactions.
Information & Communication	Relevant financial and control information is communicated in a timely manner to those who need it.
Monitoring Activities	Internal control deficiencies identified during monitoring are corrected on a timely basis.

A.2 Corporate Social Responsibility - Sample Items**Table A2. CSR Instrument Items by Carroll (1991) Dimension**

Dimension	Sample Item
Economic	Our firm strives to be as profitable as possible while meeting stakeholder obligations.
Legal	Our firm complies fully with applicable labour, tax, and environmental regulations.
Ethical	Our firm avoids compromising ethical standards to achieve corporate goals.
Philanthropic	Our firm voluntarily contributes resources to community welfare and development programmes.

Note. Full 20-item internal control and 16-item CSR instruments (4 items per dimension each) are available from the corresponding author upon request and should be finalised through expert-panel content validation and pilot testing prior to full-scale administration.

References

- All references follow APA 7th edition style. This list covers the seminal theoretical and methodological sources used directly in this manuscript; the author should append the 25-30 additional recent (2020-2026) empirical studies from their Zotero library on internal control, COSO/SOX compliance, CSR, and non-listed-firm performance in Pakistan/OIC contexts needed to reach full W-category citation density, verifying each against Scopus/WoS before final submission.*
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