

Determinants influencing fraud prevention: Empirical evidence of listed non-financial joint stock firms

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Abstract: This study identifies and measures the key governance factors influencing fraud prevention effectiveness within non-financial listed joint-stock firms in Vietnam, emphasizing the role of corporate governance in safeguarding organizational reputation and sustainability. Using a quantitative approach, data were gathered via a structured questionnaire from 467 valid respondents. Regression analyses were performed using SPSS 22 and SmartPLS 3.0 to assess the determinants of fraud prevention effectiveness. The results indicate that all five components of the internal control system, control environment, risk assessment, control activities, information and communication, and monitoring, significantly impact fraud prevention. Additionally, audit quality (AQ) and internal auditing (IA) demonstrate positive and statistically significant effects on mitigating fraud risks. The research underscores that robust internal controls, high audit quality, and active internal auditing are critical pillars for effective fraud risk management in the Vietnamese corporate context. Firms are advised to strengthen their internal control frameworks and prioritize investments in internal audit processes. Furthermore, enhancing professional training and audit quality is essential for improving fraud prevention effectiveness and long-term firm performance.

Keywords: Audit quality, Corporate governance, Fraud prevention, Internal auditing, Internal control system, Vietnam.

1. Introduction

Fraud prevention is not only a legal and regulatory requirement but also a strategic imperative for ensuring corporate sustainability and long-term success. Effective fraud prevention minimizes legal penalties, financial losses, and reputational damage by reinforcing compliance and reducing the likelihood of fraudulent incidents. Among the key determinants of fraud prevention effectiveness are the quality of internal auditing (IA), the robustness of internal control (IC) systems, and the professionalism of audit activities.

Internal auditing serves as a vital defense mechanism against fraud by identifying early warning signs, assessing control effectiveness, and recommending corrective measures. Through systematic examination of transactions and procedures, internal auditors detect vulnerabilities, advise management on strengthening controls, and contribute to fostering a culture of transparency and integrity. Empirical evidence, such as the study by Handoyo et al. [1] on PT Pos Indonesia (Persero), demonstrates that internal audit and internal control collectively contributed to a 68.8% reduction in fraud risk, underscoring their effectiveness in mitigating unethical practices.

Similarly, a sound internal control framework, comprising segregation of duties, stringent authorization protocols, and continuous monitoring, plays a crucial role in deterring fraud and ensuring operational integrity [2]. Moreover, audit quality (AQ), particularly in external audits, enhances fraud detection by ensuring the accuracy and credibility of financial reporting. High-quality audits performed

in accordance with international standards [3, 4] strengthen investor confidence and corporate transparency.

The outline of this study is as follows. Section 1 includes an introduction to the research topic. Section 2 reviews the relevant literature. This study aims to identify and measure the extent to which key governance factors influence the effectiveness of fraud prevention activities among non-financial listed joint-stock firms in Vietnam. Section 3 analyzes the methods used to conduct empirical research on this study. Section 4 presents the research results and discusses the study. This study aims to identify and measure the extent to which key governance factors influence the effectiveness of fraud prevention activities among non-financial listed joint-stock firms in Vietnam. Finally, Section 5 concludes the paper.

2. Literature Review and Hypotheses Development

2.1. Fraud Prevention

In the Industry 4.0 era, fraud prevention requires modernized, technology-driven strategies. Advanced technologies such as artificial intelligence (AI), machine learning, and data analytics enable organizations to detect anomalies, monitor irregular transactions, and identify early warning signs of fraud with greater precision. Fraud prevention is not only vital for safeguarding corporate assets and reputation but also essential for ensuring transparency, fairness, and long-term business sustainability.

Effective fraud prevention helps enterprises comply with legal regulations and industry standards, thereby reducing penalties, reputational harm, and recovery costs. It also fosters a culture of integrity and accountability, aligning corporate behavior with ethical norms. According to Nyakarimi et al. [5], successful fraud prevention depends on minimizing opportunities for fraud, alleviating pressures that may lead to unethical acts, and discouraging rationalizations for fraudulent behavior.

Much empirical evidence reinforces this perspective. Gachuru [6] found that risk monitoring accounted for 96% of the variation in fraud prevention among Kenyan insurance firms, highlighting the significance of structured risk oversight. Similarly, Nyakarimi [7] and Opiyo [8] demonstrated that internal controls, particularly in risk assessment, information flow, and monitoring, play a critical role in detecting and deterring fraud. Furthermore, Handoyo et al. [1] confirmed that robust internal controls, active monitoring, and effective internal auditing significantly enhance an organization's capacity to prevent fraudulent activities. Nguyen et al. [9] highlight the importance of internal audit in identifying accounting fraud and the need for firms to design internal audit processes and training to improve the effectiveness of their operations.

Overall, fraud prevention in Industry 4.0 necessitates an integrated approach combining ethical governance, continuous monitoring, and the application of advanced technologies to ensure financial integrity and organizational resilience.

2.2. Control Environment and Fraud Prevention

Solomon et al. [10] evaluated the effectiveness of internal control systems in preventing and detecting fraud in selected public organizations in Ekiti State, Nigeria. Their findings revealed that the control environment has a positive and significant impact on fraud prevention.

Gesare et al. [11] looked into the impact of internal control on fraud risk management among commercial banks. The study demonstrated that the independent variables, control environment, and risk assessment exerted a significant positive effect on managing fraud risk.

Nyakarimi et al. [5] examined the effect of internal control systems on fraud prevention as a proxy for risk management within Kenya's banking sector. All banks participated, targeting branch managers, operations managers, and cash supervisors as respondents. Findings indicated that the control environment had an insignificant and negative impact on fraud prevention.

Mohammed and Nermeen [12] scrutinized the effect of the control environment on fraud prevention among manufacturing firms in Kenya. The results revealed that the control environment had a substantial positive influence on preventing fraud.

According to Berdiyeva et al. [13], the prevention and detection of fraud largely depend on the internal control measures adopted by an organization. Through thorough risk assessments, organizations can identify areas most vulnerable to fraudulent activities. A strong control environment that prioritizes preventive actions and efficient resource allocation is crucial in mitigating fraud risk.

Rashid et al. [14] emphasized the importance of independent thinking among participants, arguing that such independence can help challenge the authority of executives when necessary. In other words, individuals should not simply comply with directors' or superiors' wishes if they believe such actions could undermine ethical or organizational integrity.

Based on the above analysis, the following hypothesis is proposed:

H1: The control environment has a positive effect on fraud prevention.

2.3. Monitoring and Fraud Prevention

Fulop et al. [15] emphasized that maintaining continuous vigilance over internal controls during production evaluations is essential. Extensive testing is required to verify whether the internal control system operates effectively and whether additional threats can be neutralized.

Alberti et al. [16] noted that modern firms rely heavily on information and communication networks to store and disseminate vast amounts of organizational, financial, and regulatory data that facilitate effective corporate management. They also highlighted that external operational information is as crucial as internal operational data when making business decisions.

Sulaiman et al. [17] suggested that integrated monitoring and anti-fraud efforts can yield superior outcomes. Fraud prevention specialists, forensic accountants, or external auditors may be engaged to provide an independent and objective assessment. These third parties can perform audits, evaluate the effectiveness of internal control systems, and propose enhancements to strengthen anti-fraud mechanisms. Ultimately, monitoring serves as a powerful tool in combating fraud.

Rendon and Rendon [18] asserted that by implementing a rigorous monitoring system, organizations can better prevent financial and reputational losses caused by fraudulent activities. Effective monitoring and fraud prevention require regular review of financial transactions, the use of data analytics tools, employee activity tracking, and collaboration with external stakeholders. By fostering a culture of awareness and accountability, firms can safeguard their assets and reputation against fraud.

Based on the above analysis, we design the 2nd hypothesis as follows:

H₂: Monitoring has a positive effect on fraud prevention.

2.4. Information & Communication and Fraud Prevention

According to Hay et al. [19], an improved information and communication infrastructure accelerates the dissemination of learning outcomes. The task of risk assessment within internal control involves identifying, evaluating, and monitoring controls to address potential threats.

Harber and Marx [20] concluded from their study that internal control has a high correlation ($r = 0.818$) with financial management effectiveness. Agustina and Rusydi [21] examined that internal control measures within the higher education sector in Uganda significantly contribute to fraud prevention. Organizations can reduce their exposure to fraud by fostering a culture of openness and accountability through transparent communication channels. All employees must be aware of the company's ethical standards and anti-fraud policies. Awareness and continuous training initiatives help employees understand the impact of fraud and their roles in preventing and reporting it.

Open communication channels between management and employees are essential to encourage the reporting of suspicious activities without fear of retaliation [22]. *Based on the above analysis, the following hypothesis is proposed:*

H₃: Information and communication have a positive effect on fraud prevention.

2.5. Risk Assessment and Fraud Prevention

Senior management must consider how their teams interact both internally and externally [23]. Risk assessment is defined as the process of identifying, analyzing, and managing risks that may threaten the achievement of organizational objectives, including production, sales, marketing, finance, and other operational areas [5]. The information and communication component of the internal control system enables individuals to fulfill their responsibilities by identifying and collecting information that could influence decisions on the necessary scope of activities.

Risk can be detected through management planning meetings, strategic planning, periodic performance reviews, changing stakeholder expectations, and natural disasters [24]. After identifying potential hazards at the task and departmental levels, management should conduct a thorough risk analysis. Employee involvement throughout the risk assessment process is critical, as employees are often the first line of defense against fraud due to their proximity to daily operations [25]. The most effective approach to engaging employees is to seek their feedback, facilitate easy reporting of suspicious behavior, and encourage vigilance toward potential risks.

Consistent training and awareness programs can help employees understand their roles in combating fraud and foster an ethical organizational culture [26]. Consulting external parties such as industry associations, law enforcement agencies, and independent auditors during the risk assessment process can also be beneficial. By benchmarking best practices and analyzing industry data, firms can better detect threats and implement preventive measures. Collaboration with local authorities can further accelerate fraud reporting and investigation [27].

Based on the above analysis, the following hypothesis is proposed:

H₄: Risk assessment has a positive effect on fraud prevention

2.6. Control Activities and Fraud Prevention

Control activities refer to the policies and procedures designed by a company to ensure that management directives are carried out effectively [28]. These activities occur at all organizational levels and functions. Control activities are mechanisms implemented to mitigate risks and achieve various corporate objectives. Monitoring, on the other hand, involves evaluating the effectiveness of internal control performance over time through continuous oversight or separate evaluations such as self-assessments, peer reviews, and internal audits [29]. The control environment reflects management's commitment and support, which often determines the organization's overall performance and operational efficiency

Effective communication and training are essential components of control activities aimed at fraud prevention. Clear communication of rules, procedures, and control requirements equips employees to prevent and detect fraudulent acts. Training programs can help employees understand the importance of internal controls, recognize fraud risks, and appreciate the consequences of unethical behavior. A culture of integrity and accountability enhances compliance with control procedures and encourages reporting of suspicious activities [30].

The success of control activities depends on regular monitoring and evaluation. Periodic internal audits, independent assessments, and expert reviews are effective mechanisms for identifying control weaknesses and implementing corrective actions. By conducting such evaluations, organizations are better prepared to respond to emerging fraud threats [31].

Based on the above analysis, the following hypothesis is proposed:

H₅: Control activities have a positive effect on fraud prevention

2.7. Audit Quality and Fraud Prevention

The methodical process of impartially obtaining and assessing evidence about economic actions and events to ascertain the extent to which those claims and predetermined standards align, then communicating the results to pertinent stakeholders, is known as audit quality. Xiao et al. [32] define

audit quality as the auditor's ability to identify and detect deficiencies or anomalies in the client's accounting system.

According to Rusmin and Evans [33], there is a positive correlation between audit quality and the confidence and trust individuals place in financial statements. High-quality auditing underpins reliable financial reporting, which is vital for informed decision-making.

According to Lubis et al. [34], preventing fraud necessitates creating and putting into practice risk management plans that tackle fraud in particular, as well as putting in place internal controls and open corporate governance procedures to get rid of fraudulent activity. The study surveyed 61 government internal auditors from the North Sumatra Inspectorate in Indonesia using a five-point Likert scale and Partial Least Squares (PLS) analysis via Google Forms. The findings indicate that fraud prevention is significantly improved by internal auditing and internal controls ($p < 0.05$), although audit quality has no discernible impact on fraud prevention ($p > 0.05$). The Inspectorate should focus on conducting internal audits, implementing internal control systems, and paying attention to audit quality to improve audit effectiveness, support quality decision-making, and reduce fraud.

Sanusi et al. [35] found that corporate governance significantly influences fraud prevention, while audit quality does not have a significant direct effect. However, jointly, corporate governance and audit quality significantly impact fraud prevention.

Umar et al. [36] claim that audit quality positively affects fraud detection. Auditor independence has a positive effect, while auditor competence does not significantly influence fraud detection. Moreover, neither independence nor competence indirectly affects fraud detection via audit quality. These findings contribute to effective fraud prevention within organizational frameworks.

Based on the literature, the following hypothesis is proposed:

H₆: Audit quality has a positive effect on fraud prevention

2.8. Internal Audit and Fraud Prevention

According to Maulida and Bayunitri [37], PT Pos Indonesia (Persero) Bandung's fraud prevention is greatly impacted by internal audit and internal control. The combined impact of these two factors accounts for 68.8% of fraud prevention efforts. The study provides valuable insights for improving anti-fraud measures at the company and offers supplementary information to stakeholders.

Petraşcu and Tîeanu [38] emphasized that the role of internal controls is to ensure financial data compliance with accounting principles and standards, providing an accurate, clear, and complete representation in financial reports. Achieving this requires an effective control system capable of identifying and mitigating irregularities and fraud. Furthermore, a robust relationship between internal audit, external audit, and the audit committee can foster a well-structured internal control system that aids in operational alignment and fraud management [39].

The positive correlation between fraud detection and internal audit was further validated by Monisola [40]. The existence of an internal audit function enhances an organization's ability to detect errors, irregularities, and fraud. Coram et al. [41] observed that firms with internal audit functions detect more fraud than those without.

Handoyo et al. [1] reiterate that internal auditing and control significantly contribute to fraud prevention at PT Pos Indonesia, with a contribution rate of 68.8%. A noted limitation is that the study only focused on one location, Bandung. According to Afrah et al. [42], internal audit contributes 47.4% to fraud prevention, which is a considerable contribution. This suggests that the more independent, objective, and skilled the internal auditor, the more effective internal audits become in fraud prevention.

A thorough analysis of how fraud prevention mediates the impacts of risk management, internal audit, whistleblower systems, and big data analytics in reducing financial crimes was presented by Putra et al. [43]. The study highlights the need for strategic alignment in these areas, especially in local governments across regions in Sumatra, Indonesia. It references 90 academic articles from the 1990s to 2021 and addresses the persistent skill mismatch in tackling fraud and financial crimes that hinder productivity and competitiveness in local economies.

The following hypothesis is put forth by the study:

H_7 : Internal audit has a positive effect on fraud prevention

From there, we propose the following model:

$$PF = \beta + \beta_1 * KS + \beta_2 * MA + \beta_3 * IAC + \beta_4 * RA + \beta_5 * CA + \beta_6 * AQ + \beta_7 * IE$$

In which:

Dependent variable: PF is measured through 4 main groups: Group 1 - PF1-Building a good internal control structure. This group includes 6 scales numbered from PF1.1 to PF1.6. Group 2- PF2-Enhancing more effective control activities, this group includes 3 scales numbered from PF2.1 to PF2.3. Group 3- PF3 Improving organizational culture, this group includes 5 scales numbered from PF3.1 to PF3.5. Group 4- Effectively performing internal audit function, this group is measured by 3 scales numbered from PF4.1 to PF4.3.

Independent variable group: Internal audit effectiveness (IE) is measured by 6 scales, numbered from IE1 to IE6. In addition, Internal Audit (IE) is also measured by main groups: Internal Audit Management (IAM), Progress Monitoring (TP), Reporting (RP), and Management Risk Acceptance (AMT)

Internal Audit Quality (AQ) is measured by 6 scales, numbered from AQ1 to AQ6. In addition, AQ is measured by 2 main groups: Internal Audit Team Competence (CT) and Internal Audit Independence (IA).

Internal Control is measured by 5 components according to Coso 2013: MA: Monitoring Activities; IAC: Information and Communication; RA: Risk Assessment; CA: Control Activities; IE: Internal Audit; and AQ: Audit Quality.

Each of the above variables is measured through several sub-factors, and each sub-factor is evaluated using a five-point Likert scale, ranging from “Strongly Disagree” (1) to “Strongly Agree” (5).

3. Research Methodology

Based on the influencing determinants recognized during the exploratory research phase, a quantitative survey questionnaire was administered to selected respondents through the following methods: (i) In-person, (ii) Mail, (iii) Email, (iv) Google Docs, and (v) Others. The Hanoi Stock Exchange (HNX) and the Ho Chi Minh Stock Exchange (HOSE), Vietnam's two primary stock markets, were the subject of the survey. A total of 1685 questionnaires were distributed, and 658 replies were gathered. Following the removal of invalid responses resulting from incomplete or missing data, 467 valid responses were kept, yielding a valid response rate of 27,72%.

The determinants and coded attributes are presented in the Appendix. SPSS 22 software was employed to analyze data. Descriptive statistical analysis was conducted to show the basic information of the population and sample size. To test the quality of the scale, we employ Cronbach's alpha. Then, exploratory factor analysis (EFA) was employed to extract determinants for further analysis. Finally, we use partial least squares structural equation modelling (PLS-SEM) to estimate the complex causal relationships among the latent variables. Then we analyze, explore, and test conceptual and theoretical models.

4. Results and Discussion

4.1. Results

Some general information about respondents is synthesized in Table 1. Data in Table 1 illustrates that the number of female respondents accounts for the highest proportion, with 269 participants, representing 57.6% of the total sample. Meanwhile, the number of male respondents is 198, accounting for 42.4%.

In terms of academic background, the majority of respondents specialized in auditing, with 188 participants (40.26%). This is followed by accounting, with 128 respondents (27.41%), and finance, with

83 respondents (17.77%). Finally, other specializations comprise 68 participants, accounting for 14.56% of the total.

Regarding job positions, auditors constitute the largest group, with 176 participants (37.69%), followed by department heads or deputy heads with 115 participants (24.63%). The smallest group comprises directors or deputy directors, with 71 participants, representing 15.20% of the total sample.

Regarding years of experience, the majority of respondents had more than 10 years of experience, accounting for 220 individuals (47.11%), ranking first. The second largest group consisted of younger respondents with less than 5 years of experience, totaling 142 individuals (30.41%). Finally, 105 respondents (22.48%) had between 5 and 10 years of experience.

Table 1.
Demographic Characteristics of Respondents.

<i>Gender</i>	Majors				Position				Years of Experience			Total	
	Accounting	Auditing	Finance	Others	Director/ Deputy Director	Unit managers	Auditor	Accountant	Less 10 years	5 to 10 years	Less 5 years	Total	Percentage
Male	50	69	34	45	35	31	96	36	96	36	66	198	42.40%
Female	78	119	49	23	36	84	80	69	124	69	76	269	57.60%
Total	128	188	83	68	71	115	176	105	220	105	142	467	100.00%
Percentage	27.41	40.26	17.77	14.56	15.20	24.63	37.69	22.48	47.11	22.48	30.41	100.00	

4.1.1. Scale Reliability Testing

The reliability testing of the measurement scales assessing the impact of information technology on internal auditing was conducted by using Cronbach's Alpha and Exploratory Factor Analysis (EFA).

As presented in Table 2, most constructs exhibited Cronbach's Alpha coefficients greater than 0.6, and the Corrected Item-Total Correlation values of the observed variables were all above 0.3.

Table 2.

Cronbach's Alpha of variables.

Variables	No. of variables		Cronbach's Alpha	Min total correlation coefficient
	Before	After		
Quality of Internal Audit (AQ)	6	6	0.782	0.517
Independence of Internal Audit (IA)	3	3	0.837	0.755
Competence of the Internal Audit Team (CT)	6	6	0.872	0.836
Progress Monitoring (TP)	3	3	0.779	0.523
Reporting (RP)	6	6	0.751	0.509
Internal Audit Management (IAM)	7	6	0.792	0.642
Management's Risk Acceptance Resolution (AMT)	3	3	0.748	0.509
Internal Audit (IE)	4	3	0.784	0.665
Fraud Prevention (PF)	17	7	0.888	0.834
Control Environment (KS)	8	8	0.755	0.535
Risk Assessment (RA)	8	8	0.794	0.522
Control Activities (CA)	4	4	0.751	0.535
Information and Communication (IAC)	8	4	0.742	0.511
Monitoring (MA)	8	8	0.818	0.791

4.1.2. Exploratory Factor Analysis (EFA) and Correlation among Variables

The Kaiser–Meyer–Olkin (KMO) index was 0.823 (more than 0.5), as indicated by the factor analysis results in Table 3, demonstrating that the data used for factor analysis were entirely appropriate. With a significance level value of Sig. = 0.000 < 0.05, the Bartlett's test result was **1.6663,378**, rejecting the hypothesis Ho. As a result, the identity matrix hypothesis regarding the correlation matrix between the variables was rejected. The variables met the requirements of the factor analysis and showed correlations with one another. The findings show that the reliability was not met by the remaining observed variables following the scales' removal. All things considered, the retrieved total variance value was 71.186%, which is satisfactory > 50%. Therefore, 71.186% of the data could be explained by these determinants. All factors have large (> 1) eigenvalue coefficients, while the elements with the lowest eigenvalues (1,291) all fulfill > 1.0.

Table 3.

KMO and Bartlett's coefficients.

Criteria	Model
KMO index	0.823
Bartlett's test	16663.378
Bartlett's test with sig. value	0.000
Total value of variance extracted	65.297
Minimum eigenvalues	1.291

4.1.3. Multivariate Regression Analysis

Initially, the model's fit, precision of the convergence, and model measurement dependability are examined.

Model Fit, Reliability of Measurement Model Results, Convergence Accuracy Model Fit: SRMR = 0.055

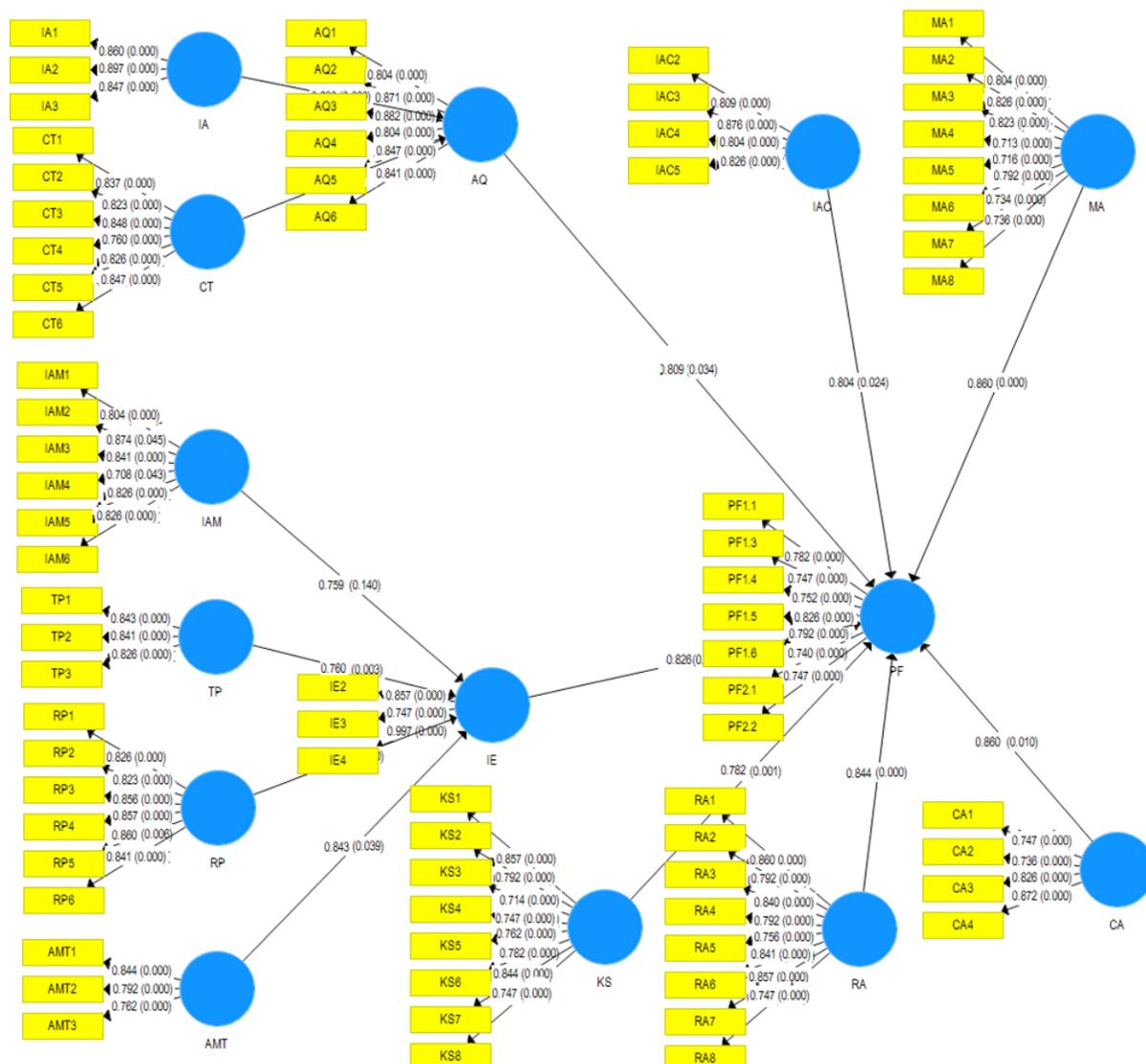


Figure 1.
Reliability and convergence of the model.

Cronbach's alpha reliability and composite reliability ≥ 0.7 are appropriate for the model, as shown in Figure 1. The accuracy level of convergence is reached when the average variance coefficient's magnitude ≥ 0.5 .

Multicollinearity among indicators: according to the coefficient VIF ≤ 5 , the multicollinearity phenomenon is not present in the model.

Data in Figure 2 shows that the Intelligent PLS Model Demonstrating the Model's Convergence and Reliability: Model appropriateness is indicated by Cronbach's Alpha and Composite Reliability > 0.7 . Convergence Level: Acceptable convergence accuracy is indicated by an Average Variance Extracted (AVE) value of ≥ 0.5 .

Multicollinearity Evaluation: Variance Inflation Factor (VIF) ≤ 5 , indicating that no multicollinearity issues are present in the model.

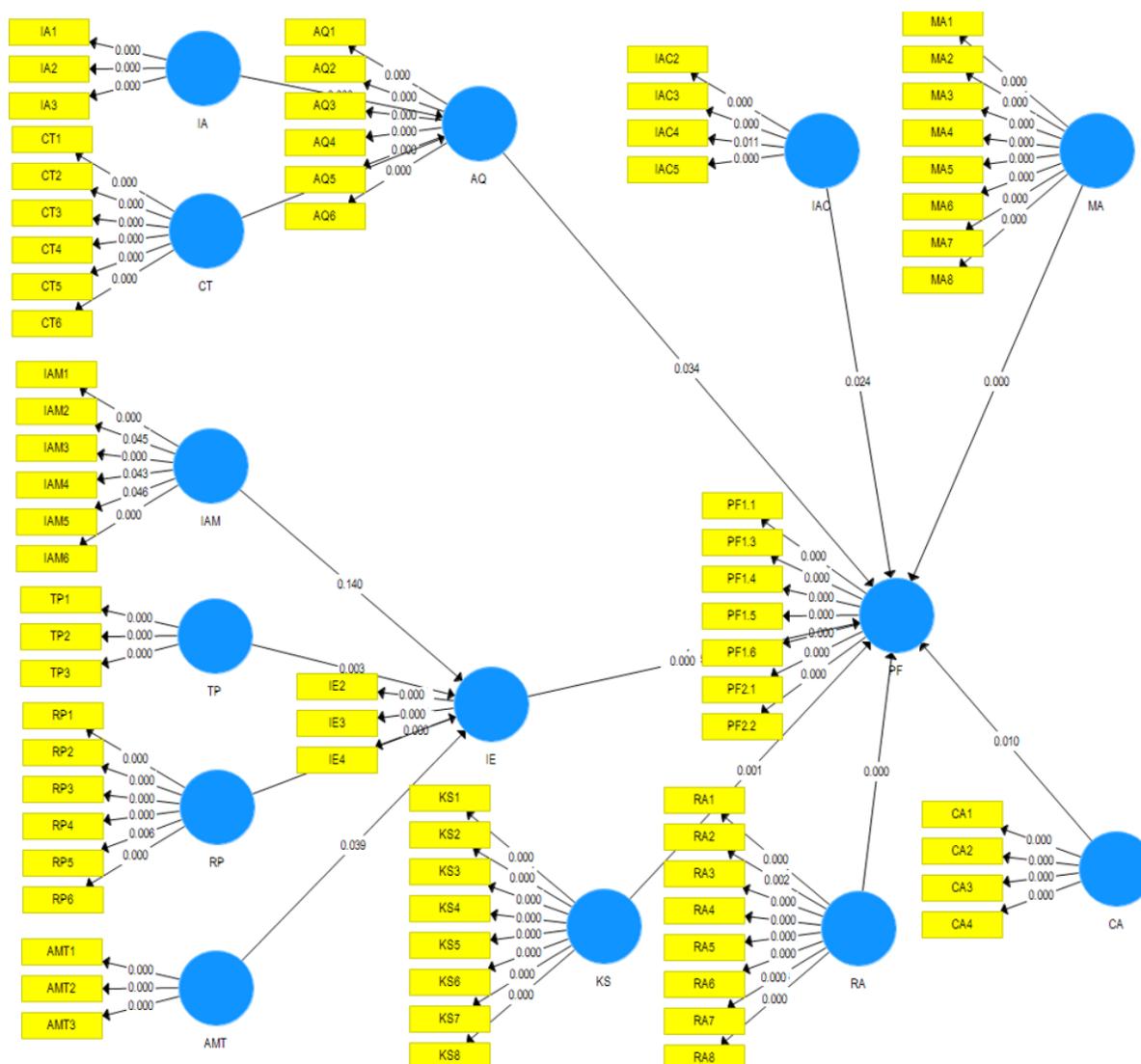


Figure 2.
The impact of internal control, audit quality, and internal audit on fraud prevention.

Models are tested and presented in Table 4, below:

Table 4.
Model testing results.

Impacts	Sample	Mean	Standard deviation	t-statistics	p-value
KS->PF	0.146	0.129	0.043	3.364	0.001
MA->PF	0.611	0.604	0.037	6.584	0.000
IAC->PF	0.075	0.079	0.033	2.262	0.024
RA->PF	0.216	0.217	0.048	4.484	0.000
CA->PF	0.092	0.097	0.036	2.596	0.010
AQ->PF	0.103	0.099	0.049	2.126	0.034
IE->PF	0.018	0.021	0.047	0.392	0.000

Data in Table 4 reveal that:

The Control Environment (KS) has a significant positive effect on Fraud Prevention (PF) ($\beta = 0.146$; $p = 0.001 < 0.05$), thus hypothesis H1 is accepted. This finding is consistent with the studies of Solomon et al. [10], Gesare et al. [11], Nyakarimi et al. [5], Mohammed and Nermeen [12], Berdiyeva et al. [13], Rashid et al. [14], and Nguyen et al. [9].

Monitoring (MA) has a significant positive impact on Fraud Prevention (PF) ($\beta = 0.611$; $p = 0.000 < 0.05$), indicating that hypothesis H2 is accepted. This finding aligns with previous studies by Fulop et al. [15], Alberti et al. [16], Sulaiman et al. [17], and Rendon and Rendon [18].

Information and Communication (IAC) also has a significant positive impact on Fraud Prevention (PF) ($\beta = 0.075$; $p = 0.024 < 0.05$), supporting hypothesis H3.

This result is consistent with the research of Hay et al. [19], Harber and Marx [20], Agustina and Rusydi [21], and Ozili and Outa [24].

Control Activities (CA) have a significant positive impact on Fraud Prevention (PF) ($\beta = 0.092$; $p = 0.024 < 0.05$), indicating that hypothesis H5 is accepted. This result is consistent with the findings of Okonkwo and Ezegbu [28], Mbilla et al. [29], Baker et al. [30], and Jalloul et al. [31].

Audit Quality (AQ) has a significant positive impact on Fraud Prevention (PF) ($\beta = 0.103$; $p = 0.034 < 0.05$), indicating that hypothesis H6 is accepted. This finding is consistent with prior research by Xiao et al. [32], Rusmin and Evans [33], Lubis et al. [34], Sanusi et al. [35], and Umar et al. [36].

Internal Audit (IE) has a positive and statistically significant effect on Fraud Prevention (PF) ($\beta = 0.018$; $p = 0.000 < 0.05$), indicating that hypothesis H7 is accepted. This finding is consistent with previous studies by Maulida and Bayunitri [37]; Petraşcu and Tîeanu [38]; Omoteso and Obalola [39]; Monisola [40], Coram et al. [41], Afrah et al. [42], and Putra et al. [43].

4.2. Discussions

Previous studies have extensively examined the impact of internal control systems (IC) on fraud and the effectiveness of control activities across various industries and sectors. However, the present research introduces several novel aspects that differentiate it from prior work and contribute additional value to the academic literature.

First, while most prior studies have only assessed the relationship between IC and fraud at a general level, this study extends the scope by examining the specific impact of IC on fraud prevention. In particular, it provides an in-depth analysis of the role of each IC component –control environment, risk assessment, information & communication, control activities, and monitoring – in fraud prevention. This approach offers clearer empirical evidence that IC not only has an indirect effect but also serves as a significant predictor of fraud prevention capacity among non-financial listed joint-stock firms in Vietnam.

Second, beyond IC, this research incorporates audit quality (AQ) as an additional variable in the analytical model, thereby clarifying the crucial role of AQ in enhancing fraud detection and prevention capabilities. This dimension has received limited attention in prior research, especially in the context of Vietnam's capital market.

Third, the study further explores the relationship between internal auditing (IA) and fraud prevention. Empirical results demonstrate that IA has a positive and significant impact on fraud prevention, confirming that IA constitutes an essential line of defense in corporate governance.

In short, this research has several key contributions: (i) it clarifies the predictive role of IC in fraud prevention; (ii) it highlights the supplementary effect of audit quality on fraud, a factor that has been largely overlooked in Vietnam's context; and (iii) it reaffirms the central role of internal auditing in fraud deterrence. These findings not only enrich the theoretical literature but also provide important practical implications for firms in improving governance mechanisms and enhancing operational effectiveness.

5. Conclusion

In the context of a global economy increasingly focused on transparency and accountability, fraud prevention has become a strategic necessity for non-financial listed firms in Vietnam, directly influencing investor confidence and market credibility. The study highlights several key recommendations. Strengthening the control environment through ethical leadership, transparent governance, and technological monitoring serves as the first line of defense against fraud. Enhancing monitoring, via regular oversight, data analytics, and whistleblowing mechanisms, ensures that internal controls function effectively and continuously improve. Robust information and communication systems foster transparency and integrity, reducing fraud risks by enabling timely detection and response. Comprehensive risk assessment, supported by data analytics and AI, helps identify vulnerabilities and predict potential fraud. Clear and regularly reviewed control activities, coupled with automation, further minimize manipulation and reporting errors. Additionally, improving audit quality through independent, reputable external auditors and stringent fraud risk assessments strengthens detection mechanisms. A professional and independent internal audit function should advise on risk management and control improvements, as seen in leading Vietnamese firms such as Hoa Phat, Vinamilk, and Mobile World.

In short, building an effective internal control, maintaining high audit quality, and empowering internal audit are long-term strategies essential for safeguarding corporate reputation and promoting transparency in Vietnam's capital market. Nevertheless, the research is limited by potential response bias in survey data, its focus on a narrow set of variables, and its restriction to non-financial listed firms. Future research should explore additional determinants and broader organizational contexts to enhance the generalizability of findings.

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Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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