International Journal of Business and Economic Innovations
https://journals.hu.edu.so/index.php/gjbei
GJBEI

The Role of Forensic Accounting in Detecting and Preventing Financial Fraud: Evidence from Financial Institutions in Somalia

Fadumo Abdullahi Ali*, Dahir Mohamed Abdullahi, Omar Abdi Dahir
Department of Accounting and Finance, Faculty of Economics & Management Sciences, Hormuud University, Mogadishu, Somalia

*Corresponding author's email: Fadumaabdulahi92@gmail.com

Abstract
This study examines the role of forensic accounting in detecting and preventing financial fraud in financial institutions in Somalia, an institutionally developing financial system that remains underrepresented in the forensic-accounting literature. The study adopted a quantitative, cross-sectional descriptive survey design, distributing a structured, closed-ended questionnaire to staff of financial institutions in Somalia, including forensic accountants, auditors, managers, regulators, and employees involved in accounting, auditing, finance, and compliance. Using simple random sampling, 70 questionnaires were distributed, completed, and returned, for a 100% response rate. The instrument measured fraud detection, fraud prevention, and the perception of forensic accounting and financial fraud on a five-point Likert scale, with items adapted from validated instruments developed by Alfordy (2022) and Shbeilat and Alqatamin (2022). All three scales demonstrated satisfactory internal consistency (Cronbach's alpha of .847, .833, and .818, respectively). Descriptive results indicated generally positive perceptions of fraud detection ($M = 3.87$, $SD = 1.072$) and fraud prevention ($M = 3.86$, $SD = 1.043$) practices. Correlation analysis showed that forensic accounting was significantly and positively associated with both fraud detection ($r = .556$, $p < .001$) and fraud prevention ($r = .834$, $p < .001$). In a multiple regression of the forensic accounting scale on the two fraud-control scales ($N = 68$), detection and prevention jointly explained approximately 69.6% of the variance ($R^2 = .696$; $F(2, 65) = 74.338$, $p < .001$), but only fraud prevention made a significant unique contribution ($\beta = .822$, $p < .001$), while fraud detection did not ($\beta = .019$, $p = .836$). These findings suggest that the preventive function of forensic accounting is the stronger driver of fraud control in Somalia's financial institutions. The study contributes the first direct empirical evidence on forensic accounting in Somalia's financial sector, extends the fraud triangle, agency, and information asymmetry theories to a fragile, institutionally developing setting, and offers practical guidance for financial institutions, regulators, and policymakers seeking to strengthen fraud-control mechanisms.

Keywords: Forensic accounting, Financial fraud, Fraud detection, Fraud prevention, Financial institutions, Somalia, Fraud triangle theory

1. Introduction

1.1 Background of the study

Financial fraud remains a major threat to organizational integrity, financial stability, and stakeholder confidence. It generates direct financial losses while weakening governance,

damaging institutional reputation, and undermining the reliability of financial information (Dyck et al., 2023). The global scale of occupational fraud illustrates the seriousness of the problem. The Association of Certified Fraud Examiners (ACFE) reported 1,921 cases from 138 countries and territories in its 2024 Report to the Nations, with approximately US$3.1 billion in reported losses and an estimated average loss equivalent to 5% of organizational annual revenue (Rahmahdita et al., 2024; Yunus et al., 2019). Earlier ACFE evidence similarly demonstrated substantial financial losses and showed that mechanisms such as whistleblowing systems can improve the speed of fraud detection and reduce losses (Aviantara, 2021). The persistence and increasing sophistication of fraud, together with the limitations of conventional auditing in identifying concealed fraudulent activities, have strengthened the need for specialized investigative approaches such as forensic accounting (Alabi & Ishola, 2022). This challenge is particularly significant in emerging economies, where financial fraud can undermine institutional development, investor confidence, and economic progress (Mahajan, 2025).

Financial institutions are especially vulnerable because they process large transaction volumes, manage customer funds, maintain extensive financial records, and increasingly rely on interconnected digital systems. Evidence from deposit money banks in Nigeria and commercial banks in South Sudan demonstrates that financial fraud remains a significant operational risk and that stronger forensic investigation capabilities can contribute to fraud reduction (Agboare, 2021; Mabior & Wanyama, 2024). Although internal controls, auditing, corporate governance, and compliance mechanisms remain essential for fraud-risk management, fraudulent activities may circumvent or exploit weaknesses in these systems. More importantly, conventional audit procedures are not always designed to investigate deliberately concealed or sophisticated financial manipulation (Alfordy, 2022; Kassem, 2023). The ACFE's evidence that more than half of occupational fraud cases are associated with either inadequate internal controls or management override further highlights the need for complementary mechanisms capable of investigating suspicious transactions and identifying fraud-related evidence. Consequently, financial institutions require specialized capabilities that extend beyond routine accounting and auditing procedures.

Forensic accounting provides such a specialized approach by integrating accounting and auditing expertise with investigation, financial analysis, evidence gathering, and legal knowledge to identify irregularities and support organizational and legal action (Anghel & Poenaru, 2023; Saha et al., 2025). Its application has increasingly expanded through data analytics, artificial intelligence, machine learning, and other digital techniques for identifying suspicious financial activities (Odeyemi et al., 2024). Empirical evidence indicates that forensic accounting techniques can contribute to both fraud detection and prevention. For example, evidence from Pakistan demonstrates positive effects of forensic accounting practices on fraud detection and prevention (Naz & Khan, 2024), while evidence from South Sudan indicates that increased forensic investigation is associated with reductions in financial fraud (Mabior & Wanyama, 2024). Research in Nigeria likewise suggests that technological and forensic-accounting capabilities can strengthen institutional integrity and stakeholder confidence (Eghe-Ikhurhe et al., 2024). However, the adoption of forensic accounting remains constrained in developing economies by shortages of specialized skills, inadequate technological infrastructure, and the costs associated with developing forensic capabilities (Alabi & Ishola, 2022; AREFIN, 2026). These contextual differences indicate that evidence from one country cannot necessarily be generalized to another.

Despite growing international evidence, an important empirical gap remains concerning the simultaneous role of forensic accounting in financial fraud detection and prevention, particularly in fragile and institutionally developing financial systems. Existing research varies considerably in how forensic accounting is conceptualized and measured, with some studies

focusing on individual forensic techniques and others examining it as a broader organizational capability (Daraojimba et al., 2023). Moreover, technological developments are rapidly changing fraud-detection practices, while the auditing profession continues to face challenges in adopting advanced analytical techniques (Kassem & Omoteso, 2023). The effectiveness of forensic accounting may therefore depend on institutional capacity, professional expertise, technological infrastructure, regulatory enforcement, and organizational governance (Idrus et al., 2024). This creates a need for context-specific empirical evidence rather than assuming that findings from relatively different institutional environments can be directly transferred to other settings.

Somalia represents an important but underexamined context for this investigation. The country's formal financial system has progressively developed through the expansion of banking and financial-service institutions and the strengthening of regulatory and supervisory mechanisms. International financial-sector assessments have documented continuing efforts to strengthen financial supervision, anti-money-laundering and counter-terrorist-financing (AML/CFT) systems, and institutional capacity. At the same time, evidence from Somalia identifies financial crimes, including fraud and corruption, as continuing institutional challenges requiring stronger financial-management and governance mechanisms (Kulmie, 2023). Although these developments demonstrate progress in the financial sector, regulatory reforms alone do not establish whether financial institutions possess adequate investigative capabilities to identify sophisticated fraudulent activities. The limited availability of specialized expertise, technological capacity, and investigative mechanisms may remain important barriers to effective fraud control.

More importantly, existing research on Somalia has primarily examined financial-sector development, regulation, AML/CFT, remittance governance, corruption, and institutional capacity rather than directly assessing the contribution of forensic accounting to financial fraud detection and prevention. Consequently, there is limited empirical evidence on whether forensic accounting is significantly associated with the ability of Somali financial institutions to detect and prevent financial fraud. Evidence from Pakistan, Bangladesh, South Sudan, Nigeria, and cross-country studies demonstrates the potential value of forensic accounting, but differences in institutional structures, professional expertise, regulatory enforcement, and technological capacity limit the direct generalization of these findings to Somalia (Naz & Khan, 2024; AREFIN, 2026; Mabior & Wanyama, 2024; Idrus et al., 2024). Addressing this gap is important for financial institutions, regulators, auditors, and policymakers seeking evidence-based approaches to strengthening fraud-control mechanisms. Accordingly, this study examines the role of forensic accounting in detecting and preventing financial fraud in Somalia's financial institutions. Specifically, it investigates whether forensic accounting is significantly associated with financial fraud detection and financial fraud prevention. By providing empirical evidence from an underrepresented and institutionally developing financial environment, the study contributes to the forensic-accounting and financial-fraud literature while offering practical evidence for strengthening fraud-risk management within Somalia's financial sector.

1.2 Research Objectives

The main objective of this study is to examine the role of forensic accounting in detecting and preventing financial fraud in financial institutions in Somalia.

Specifically, the study aims to:

1. To examine the role of forensic accounting in detecting financial fraud in financial institutions in Somalia.
2. To examine the role of forensic accounting in preventing financial fraud in financial institutions in Somalia.

1.3 Significance of the study

This study has a significant importance in enhancing both academic knowledge and practical applications of forensic accounting in a developing context. Somalia faces unique challenges in financial governance, characterized by high levels of corruption and weak regulatory frameworks. By investigating the specific roles and techniques of forensic accounting, this research contributes valuable insights to the existing literature, addressing a crucial gap regarding how these practices can effectively mitigate financial fraud in Somalia's unique environment.

Additionally, the findings of this study are expected to have practical implications for particularly Somali companies. By identifying effective forensic accounting practices, the research can guide these organizations in implementing stronger internal controls and fraud detection strategies. This proactive approach not only safeguards assets but also fosters transparency and trust among stakeholders. Furthermore, the insights gained from this study can inform policymakers and regulatory bodies about the necessity of integrating forensic accounting into national financial governance frameworks, ultimately promoting a more secure and stable economic environment in Somalia.

2. Literature Review

2.1 Forensic Accounting

Forensic accounting refers to the application of financial, accounting, auditing, investigative, and evidential skills to unresolved financial issues, particularly where fraud or other financial misconduct is suspected (Ozili, 2015). It combines accounting principles with investigative techniques to examine suspicious transactions and uncover the underlying intentions of perpetrators through document reviews, interviews, electronic-record examination, and financial analysis (Ozili, 2015; Anghel & Poenaru, 2023). Its two broad functions are litigation and investigation. In litigation, forensic accountants provide expert services in commercial disputes, financial damages, insolvency, and legal proceedings, while investigations involve detecting and documenting activities such as money laundering, corporate fraud, and fraudulent insolvency through transaction analysis, document examination, interviews, and data mining (Anghel & Poenaru, 2023; Awwad & Abdelsattar, 2025). Technological developments, including forensic software, cyber forensics, data mining, ratio analysis, and trend analysis, have further strengthened forensic accountants' capacity to investigate financial misconduct (Daraojimba et al., 2023). Unlike traditional auditors, whose primary responsibility is to provide assurance that financial statements comply with applicable standards and regulations, forensic accountants have a more specialized investigative orientation (Anghel & Poenaru, 2023). Although management and governance bodies retain primary responsibility for fraud prevention and detection, auditors may face limitations in assessing complex fraud risks. Wilks and Zimbelman (2004), using experimental evidence from 52 practicing audit managers, found that auditors who perceived management attitudes as indicating low fraud risk were less sensitive to high levels of incentive and opportunity risks, whereas separately assessing attitude, opportunity, and incentive increased sensitivity to fraud-risk cues. Empirical studies further demonstrate the value of forensic accounting: Okoye and Gbegi (2013) administered 370 questionnaires and analyzed 350 responses from five ministries in Kogi State, Nigeria, finding that forensic accounting significantly reduced fraud occurrence and that forensic accountants were better positioned than traditional external auditors to detect and prevent fraud (Amahi, 2023; Olukowade & Balogun, 2015). Similar evidence indicates that forensic accounting services reduce fraudulent activities in Nigerian banks (Oranefo & Egbunike, 2021), forensic accounting investigation significantly reduces financial fraud in corporate organizations (Sule et al., 2019), and forensic accountants improve fraud detection and

prevention in public organizations (Okere, 2018). A systematic review also reports a positive relationship between forensic accounting and fraud detection and prevention while emphasizing the complexity of financial fraud (Kaur et al., 2022).

2.2 Fraud Detection

Fraud detection involves recognizing, analyzing, and stopping fraudulent activities within an organization, with effective detection depending substantially on the strength of internal controls (Akinbowale et al., 2023). Forensic accounting investigations therefore commonly assess fraud risk, evaluate internal-control adequacy, examine codes of ethics and conduct, and conduct substantive transaction testing (Sule et al., 2019). Commonly examined detection practices include corporate codes of conduct, ethics policies, internal-control reviews, employee reference checks, employment-contract reviews, anti-fraud auditing, and fraud-reporting policies (Alfordy, 2022). However, a gap often exists between the availability and actual use of sophisticated detection techniques. Bierstaker et al. (2006), based on a survey of 86 accountants, internal auditors, and certified fraud examiners, found that firewalls, virus and password protection, and internal-control improvement were widely used, whereas discovery sampling, data mining, forensic accountants, and digital-analysis software were less frequently applied despite receiving high effectiveness ratings. Forensic accountants were the least commonly used anti-fraud method but received the highest mean effectiveness rating, while smaller firms were particularly reluctant to invest in fraud prevention and detection despite potentially facing greater consequences from fraud (Bierstaker et al., 2006). Empirical evidence supports the effectiveness of forensic accounting investigation in reducing financial fraud in Nigerian corporate organizations (Sule et al., 2019), Nigerian banks (Oranefo & Egbunike, 2021), and the Nigerian public sector (Amahi, 2023). Furthermore, relying solely on financial-statement data may be insufficient for effective fraud detection without complementary data-mining techniques (Abdulrahman, 2019).

2.3 Fraud Prevention

Fraud prevention comprises proactive measures designed to reduce the likelihood and potential losses associated with fraudulent activities before they occur. Forensic accounting therefore extends beyond the retrospective identification of fraud to include the assessment of fraud risks and the development of stronger financial controls and systems (Nursansiwi, 2024). Effective prevention requires a strong control environment, ethical management, sound corporate governance, reliable accounting systems, appropriate authorization procedures, asset safeguards, documentation, and effective audit mechanisms (Bhasin, 2013b). Forensic accountants can contribute to these mechanisms by supporting governance policies, defining board and audit-committee responsibilities, developing ethical codes, and strengthening fraud-risk controls (Bhasin, 2013b). Poor corporate governance and accounting weaknesses are important enablers of fraud, while independent boards, effective audit committees, separation of CEO and chair roles, and legal reforms can strengthen transparency and accountability (Utama & Purwoko, 2024). Nevertheless, organizational use of forensic accounting remains limited despite its perceived effectiveness (Bierstaker et al., 2006), while Okoye and Gbegi (2013) found that forensic accountants can strengthen fraud-risk assessment, audit procedures, and fraud-detection strategies (Amahi, 2023). Limited awareness and education also constrain adoption, leading to calls for forensic accounting to be incorporated into undergraduate and postgraduate education (Kaur et al., 2022).

2.4 Theoretical Review

2.4.1 Fraud Triangle Theory

The Fraud Triangle Theory, developed from Cressey's research in the 1940s, explains fraud through three conditions: pressure, opportunity, and rationalization (Tickner & Button, 2021; Kassem & Higson, 2012; Lin et al., 2022). Cressey's framework was developed from interviews with convicted embezzlers in three US prisons and proposes that individuals may commit fraud when they experience a non-shareable financial problem, perceive an opportunity to resolve it secretly, and rationalize the violation (Tickner & Button, 2021). Pressure represents the perceived need to commit wrongdoing, opportunity reflects the ability to commit it without detection or punishment, and rationalization provides moral justification for the act (Schnatterly et al., 2018). The theory has become a standard framework in auditing and fraud examination, and a systematic review of 33 empirical studies found that 32 supported at least one component while 27 supported all three, providing substantial international support for the framework (Homer, 2019). In this study, the theory is relevant because forensic accounting and fraud-control practices address opportunity and rationalization through stronger internal controls, segregation of duties, monitoring, ethical cultures, and codes of conduct.

2.4.2 Agency Theory

Agency Theory, rooted in Jensen and Meckling (1976), explains conflicts arising from the separation of ownership and control between principals and agents (Habbash, 2010; Wimelda & Chandra, 2018). Managers may pursue personal interests rather than shareholder objectives, particularly where information asymmetry makes their actions difficult and costly for principals to monitor (Habbash, 2010). Such conflicts can encourage earnings management and other opportunistic practices because managers possess greater information about organizational activities than external stakeholders (Wimelda & Chandra, 2018). Agency theory consequently predicts a need for monitoring mechanisms capable of limiting fraud and misstatement (Alharasis et al., 2023). Evidence shows that external governance mechanisms can constrain managerial opportunism (Shi et al., 2016), while strong audit-committee monitoring reduces the likelihood of financial-reporting fraud (Ndofor et al., 2013), and corporate governance and external auditing can constrain earnings management (Habbash, 2010). Within this study, forensic accounting represents an important agency-control mechanism because its investigative function can reduce information advantages and detect fraudulent behavior.

2.4.3 Information Asymmetry Theory

Information asymmetry occurs when one party possesses more complete or superior information than another. In organizations, managers generally possess greater information than shareholders because of their involvement in daily operations (Wimelda & Chandra, 2018). Such information differences can facilitate reporting manipulation and accounting fraud (Wijaya & Herwiyanti, 2023). Research further indicates that information asymmetries associated with industry and firm complexity increase the likelihood of financial fraud (Ndofor et al., 2013). Financial reporting and independent verification are therefore important mechanisms for reducing information gaps, improving transparency, and increasing the credibility of reported information (Zezhong, 2026; Kourtis et al., 2019). In this study, forensic accounting is relevant to Information Asymmetry Theory because its investigative procedures can improve the quality, reliability, and verifiability of financial information, thereby reducing information gaps that may facilitate fraud.

2.5 Research Gap

The literature indicates that forensic accounting provides an important mechanism for detecting and preventing financial fraud by applying investigative techniques beyond conventional auditing (Anghel & Poenaru, 2023), with empirical studies reporting significant reductions in fraud occurrence (Amahi, 2023; Sule et al., 2019). However, its wider application remains constrained by limited awareness, inadequate professional education, low organizational adoption, and technological or institutional limitations (Bierstaker et al., 2006; Kaur et al., 2022). The Fraud Triangle, Agency Theory, and Information Asymmetry Theory provide complementary explanations for this relationship by identifying opportunity, conflicting interests, and information gaps as conditions that forensic accounting can help address. Despite these findings, most empirical evidence originates from Nigeria (Amahi, 2023; Oranefo & Egbunike, 2021), Jordan (Shbeilat & Alqatamin, 2022), Indonesia (Mardjono et al., 2024), Kenya (Mwangi & Ndegwa, 2020), and other developing economies, while evidence from Somalia's financial sector remains limited. This is important because financial crimes, including corruption, fraud, and bribery, have been documented as significant challenges in Somalia (Kulmie, 2023), while differences in institutional capacity and financial-sector development may influence the effectiveness of forensic accounting across countries. Therefore, this study addresses the contextual and empirical gap by examining the role of forensic accounting in detecting and preventing financial fraud in financial institutions in Somalia, using validated instruments adapted from Alfordy (2022) and Shbeilat and Alqatamin (2022).

2.6 Conceptual Framework

The framework (Figure 2.1) shows how the independent variable (forensic accounting) is expected to affect the dependent variables (financial fraud detection and financial fraud prevention).

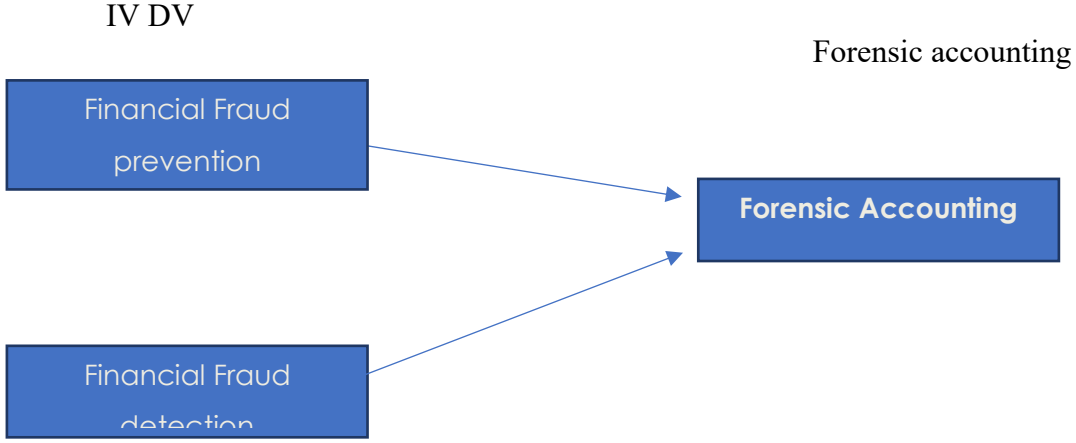


Figure 2.1: Conceptual framework

2.7 Research Hypotheses

H1: Forensic accounting has a significant positive effect on financial fraud detection in financial institutions in Somalia.

H2: Forensic accounting has a significant positive effect on financial fraud prevention in financial institutions in Somalia.

3. Data and Method

The study adopted a quantitative, cross-sectional descriptive survey design to examine participants' perceptions and statistically assess the relationships among forensic accounting, financial fraud detection, and financial fraud prevention. A structured questionnaire was appropriate for collecting standardized responses and is commonly used in forensic accounting research involving accountants, auditors, and banking employees (Anghel & Poenaru, 2023; Saha et al., 2025). The target population comprised staff of financial institutions in Somalia, including forensic accountants, auditors, managers, regulators, and employees involved in accounting, auditing, finance, and compliance. Simple random sampling was employed because it gives each population element an equal probability of selection, thereby reducing selection bias and supporting the generalizability of findings (Memon et al., 2020). A total of 70 questionnaires were distributed, completed, and returned, resulting in a 100% response rate. Primary data were collected through a structured, closed-ended questionnaire (Onoja & Adown, 2026) using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. The instrument consisted of five demographic items and three measurement scales. The Fraud Detection scale contained seven items: B1–B6 were adapted verbatim from Alfordy's (2022) fraud-detection instrument, while B7, concerning the examination of unusual and unexplained operations, was adapted from Shbeilat and Alqatamin (2022). The items covered corporate codes of conduct, internal-control reviews, employee reference checks, anti-fraud auditing, and fraud-reporting policies (Alfordy, 2022; Shbeilat & Alqatamin, 2022). The Fraud Prevention scale comprised seven items reproduced from Shbeilat and Alqatamin (2022), covering segregation of duties, procedures for identifying suspicious transactions, detailed operational reviews, anti-money-laundering internal controls, and reporting of control weaknesses. The Perception of Forensic Accounting and Financial Fraud scale consisted of five items reproduced from Alfordy (2022), covering expectations of future fraud, previous victimization, fraud-reporting intentions, shared responsibility for fraud detection, and the role of internal auditors. The questionnaire was developed with reference to the fraud and money-laundering literature and the validated instruments used in previous studies (Shbeilat & Alqatamin, 2022).

Content validity was supported by adapting items from established instruments and obtaining review from knowledgeable reviewers (Mwangi & Ndegwa, 2020), while a pilot test was conducted before the main survey (Shbeilat & Alqatamin, 2022). Internal consistency reliability was assessed using Cronbach's alpha in SPSS, with 0.70 adopted as the minimum acceptable threshold. All three scales exceeded this criterion: fraud detection ($\alpha = .847$), fraud prevention ($\alpha = .833$), and forensic accounting and financial fraud ($\alpha = .818$), indicating satisfactory internal consistency.

Data were analyzed using SPSS (Agboare, 2021). Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize respondents' demographic characteristics and perceptions. Inferential analysis employed Pearson correlation to examine the strength and direction of associations among the study variables, with significance assessed at the 0.01 level (two-tailed). Regression analysis was used to examine the statistical relationship between forensic accounting and the study outcomes of financial fraud detection and financial fraud prevention. Statistical significance was evaluated at the 5% level ($p < .05$). Participation was voluntary, informed consent was obtained from all respondents, and anonymity and confidentiality were maintained. The collected data were used solely for academic purposes.

4. Findings

Table 4.1: Sample profile (N =70)

Respondents' Characteristics			
Item	**Category**	**Frequency**	**Percentage**
Age	Below 25	5	7.1
	26 – 35	37	52.9
	36 - 50	26	37.1
	Above 51	2	2.9
	Total	70	100
Gender	Female	12	17.1
	Male	58	82.9
	Total	70	100
Level of education	High school	2	2.9
	Bachelor degree	23	32.9
	Master degree	42	60.0
	PHD	3	4.3
	Total	70	100
What is your profession	Forensic accountant	6	8.6
	Auditor	17	24.3
	Manager	5	7.1
	Regulatory official	3	4.3
	Business owner	12	17.1
	Others	27	38.6
	Total	70	100
Level of experience	Less than 1 year	7	10.0
	1 – 3 years	20	28.6
	4 -6 years	12	17.1
	7- 10 years	16	22.9
	More than 10 years	15	21.4
	Total	70	100

Table 4.1 elaborates on the characteristics of the questionnaire respondents. This finding was based on responses from all 70 respondents from financial institutions operating in Somalia. It shows that 7.1% are below 25 years old, 52.9% range between 26–35 years old, 37.1% range between 36–50 years old, and 2.9% are above 51 years old. Most respondents (52.9%) are between 26 and 35 years old, which means that most managers and staff are young to middle-aged adults. Moreover, 17.1% of the respondents are female, while the other 82.9% are male. 2.9% of the respondents are at the high school level, 32.9% have a bachelor's degree, 60.0% have a master's degree, and the other 4.3% have a Ph.D. By profession, 8.6% are forensic accountants, 24.3% auditors, 7.1% managers, 4.3% regulatory officials, 17.1% business owners, and 38.6% hold other roles. Finally, 10.0% of the respondents have less than 1 year of experience, 28.6% have 1–3 years, 17.1% have 4–6 years, 22.9% have 7–10 years, and the other 21.4% have more than 10 years of experience.

Table 4.2: To examine the role of Forensic Accounting and Financial Fraud Detection

No		Mean	Std. Deviation	Interpretation
1	My organization always implements a corporate code of conduct/ethics policy.	3.99	1.161	Very good
2	My organization always reviews and improves internal control.	3.96	1.013	Very good
3	My organization always conducts reference checks on employees.	3.89	1.110	Very good
4	My organization always reviews employment contracts.	4.04	1.096	Very good
5	My organization always conducts anti-fraud auditing.	3.51	1.113	Very good
6	My organization always implements a fraud-reporting policy.	3.89	.941	Very good
7	Examination of unusual and unexplained operations.	3.84	1.072	Very good
Average		3.87	1.072	Very good

The descriptive statistics of the study reveal an overall mean score of 3.87 with a standard deviation of 1.072 across all seven items, indicating generally positive perceptions of fraud detection practices. These findings suggest that fraud detection practices in the participating financial institutions are generally perceived as effective, although anti-fraud auditing recorded the lowest mean (3.51). This effectiveness highlights the importance of robust fraud detection mechanisms in fostering financial integrity and organizational transparency.

Table 4.3: To examine the role of Forensic Accounting and Financial Fraud Prevention

No		Mean	Std. Deviation	Interpretation
1	Clear definition of duties and responsibilities of employees to facilitate the application of the principle of segregation of duties.	3.99	.993	Very good
2	Ensure that there are two specific procedures to identify suspicious financial transactions.	3.93	.953	Very good
3	A detailed review of the operations carried out by the organizations being investigated.	3.64	1.117	Very good
4	A detailed review of the operations carried out with major executives and stockholders.	4.03	1.035	Very good
5	Investigating the extent of adherence to the internal control procedures related to the prevention of money laundering.	3.80	1.030	Very good
6	Assessment of weaknesses and gaps in internal control systems.	3.87	1.102	Very good
7	Reporting gaps in the implementation of anti-money laundering instructions to the independent audit committee and higher authorities.	3.78	1.069	Very good

Average		3.86	1.043	Very good

The descriptive results indicate generally positive perceptions of financial fraud prevention practices among respondents. The overall mean score was 3.86 (SD = 1.043), suggesting that respondents generally agreed that the identified fraud-prevention practices were present within their financial institutions. However, descriptive statistics alone do not establish a statistically significant relationship or causal effect. The relationship between forensic accounting and financial fraud prevention is therefore assessed using correlation and regression analysis.

Table 4.4: To examine the role of Perception of Forensic Accounting and Financial Fraud

No		**Mean**	**Std. Deviation**	**Interpretation**
1	I expect fraud to increase in my organization in the future.	3.57	1.057	Very good
2	My organization has been a victim of fraud.	3.80	.878	Very good
3	In the event of fraud, I will report the incident to the responsible party.	3.93	.997	Very good
4	All the employees including the top management are responsible for fraud detection.	3.80	1.044	Very good
5	Internal auditors play a critical role in detecting fraud.	3.83	1.154	Very good
Average		3.79	1.026	Very good

The analysis of the perception of forensic accounting and financial fraud (Table 4.4) reveals a mean score of 3.79 and a standard deviation of 1.026. This indicates a generally positive perception among respondents regarding the effectiveness of forensic accounting in mitigating financial fraud. The mean score suggests that most participants agree on the significant role forensic accounting plays in detecting, investigating, and preventing fraudulent activities within organizations. However, the standard deviation of 1.026 reflects some variability in responses, potentially highlighting differing levels of awareness or experience with forensic accounting practices. This variability underscores the importance of further promoting forensic accounting techniques and enhancing organizational capacity to leverage these tools for robust fraud prevention measures.

Table 4.5: The reliability analysis

Variables	No of items	Cronbach's alpha	Status
Financial Fraud detection	7	.847	Good and acceptable
Financial Fraud prevention	7	.833	Good and acceptable
Forensic Accounting	5	.818	Good and acceptable

The internal consistency of the research instrument was assessed using Cronbach's alpha coefficient in SPSS. Cronbach's alpha evaluates the extent to which items within each construct consistently measure the same underlying concept. A coefficient of 0.70 or above is commonly considered an acceptable level of internal consistency. The results indicate satisfactory reliability for all three scales. The fraud-detection scale consisting of seven items produced a Cronbach's alpha of 0.847, while the seven-item fraud-prevention scale produced an alpha of 0.833. The five-item forensic accounting and financial fraud scale produced an alpha of 0.818. These results indicate acceptable to good internal consistency among the items used to measure the respective constructs.

Table 4.6: Model summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.834[a]	.696	.686	2.18265
a. Predictors: (Constant), financial Fraud prevention, financial Fraud detection				

The model summary reports an R^2 value of 0.696, indicating that the two predictors included in the regression model jointly account for 69.6% of the variance in the dependent variable. The adjusted R^2 is 0.686, indicating that approximately 68.6% of the variance is explained after adjustment for the number of predictors in the model (Table 4.6).

Table 4.7: ANOVA

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	708.285	2	354.142	74.338	<.001[b]
	Residual	309.656	65	4.764		
	Total	1017.941	67			
a. Dependent Variable: Forensic Accounting						
b. Predictors: (Constant), financial Fraud prevention, financial Fraud detection						

The ANOVA results (Table 4.7) show that the regression model was statistically significant, $F(2, 65) = 74.338$, $p < .001$, indicating that fraud detection and fraud prevention jointly explain a significant proportion of the variation in the forensic accounting scale ($N = 68$ complete cases).

Table 4.8: Coefficients

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.850	1.523		1.215	.229
	Financial Fraud detection	.012	.057	.019	.208	.836
	Financial Fraud prevention	.620	.067	.822	9.186	<.001
a. Dependent Variable: Forensic Accounting						

Table 4.8 shows that, holding fraud detection constant, a one-unit increase in fraud prevention is associated with a 0.620-unit increase in the forensic accounting score (β = .822, t = 9.186, p < .001), whereas fraud detection has no significant unique association once prevention is controlled (B = 0.012, β = .019, p = .836). The explanatory power of the model therefore rests mainly on fraud prevention.

Table 4.9: Correlations

Correlations				
		Financial Fraud detection	Financial Fraud prevention	Forensic Accounting
Financial Fraud detection	Pearson Correlation	1	.645**	.556**
	Sig. (2-tailed)		<.001	<.001
	N	70	68	70
Financial Fraud prevention	Pearson Correlation	.645**	1	.834**
	Sig. (2-tailed)	<.001		<.001
	N	68	68	68
Forensic Accounting	Pearson Correlation	.556**	.834**	1
	Sig. (2-tailed)	<.001	<.001	
	N	70	68	70
****. Correlation is significant at the 0.01 level (2-tailed).**				

Table 4.9 shows that the correlation between fraud detection and forensic accounting is positive and moderate (r = 0.556, p < .001). Additionally, fraud prevention exhibits an even stronger positive connection with forensic accounting and financial fraud, evidenced by a higher coefficient of 0.834. These findings suggest that forensic accounting plays a pivotal role in both detecting and preventing financial fraud, with its preventive aspect showing the stronger association.

5. Discussion

The descriptive results show that fraud detection (mean = 3.87, SD = 1.072) and fraud prevention (mean = 3.86, SD = 1.043) practices in Somali financial institutions are perceived as highly effective, with the strongest practices being the review of employment contracts (4.04), the review of operations involving major executives and stockholders (4.03), and the implementation of codes of conduct (3.99). These findings align with the international evidence that forensic accounting is positively associated with both fraud detection and fraud prevention (Anghel & Poenaru, 2023; Kaur et al., 2022), and with empirical studies from Pakistan (Naz & Khan, 2024), Nigerian banks (Agboare, 2021), and commercial banks in South Sudan (Mabior & Wanyama, 2024) reporting that forensic accounting practices reduce fraudulent activity. The overall perception of forensic accounting and financial fraud (mean = 3.79, SD = 1.026) reflects general agreement on its value, but the variability in responses echoes earlier evidence that accountants and auditors hold uneven awareness of forensic accounting even while rating it among the most effective anti-fraud methods (Bierstaker et al., 2006).

The regression model was statistically significant ($F(2, 65) = 74.338$, $p < .001$), with fraud detection and fraud prevention jointly explaining approximately 69.6% of the variance in forensic accounting and financial fraud ($R^2 = .696$; adjusted $R^2 = .686$). However, only fraud

prevention emerged as a significant predictor (β = .822, t = 9.186, p < .001), whereas fraud detection was not significant in the multivariate model (β = .019, p = .836), despite its moderate zero-order correlation with the dependent variable (r = .556, p < .001). This pattern, also reflected in the strong prevention–outcome correlation (r = .834) and the substantial overlap between detection and prevention (r = .645), indicates that the preventive function of forensic accounting is where its greatest impact lies, consistent with the literature emphasizing forensic accounting's proactive role in building internal controls, segregation of duties, and anti-money-laundering procedures that thwart fraud before it occurs (Akinbowale et al., 2023; Bhasin, 2013b; Nursansiwi, 2024). It also suggests that detection practices operate largely through, and are partly subsumed by, the preventive control environment.

These findings are consistent with the study's theoretical framework. Under the fraud triangle, strong preventive controls reduce opportunity while codes of conduct and ethics policies constrain rationalization (Kassem & Higson, 2012; Schnatterly et al., 2018); under agency theory, forensic accounting acts as a monitoring mechanism that curbs managers' opportunistic pursuit of self-interest (Alharasis et al., 2023; Wimelda & Chandra, 2018); and under information asymmetry theory, credible, verified reporting narrows the information gap that fraud exploits (Wijaya & Herwiyanti, 2023). In the Somali context — where financial crimes such as corruption, fraud, and bribery are documented as prevalent in the public sector (Kulmie, 2023) — the results provide context-specific evidence that robust forensic accounting frameworks are associated with stronger fraud control even in institutionally developing financial systems (Idrus et al., 2024).

This study makes three contributions. Empirically, it provides the first direct evidence on the role of forensic accounting in detecting and preventing financial fraud in Somali financial institutions, extending a literature that has concentrated on Nigeria, Pakistan, Bangladesh, and other developing markets (Agboare, 2021; AREFIN, 2026; Kulmie, 2023). Theoretically, it supports the fraud triangle, agency, and information asymmetry perspectives in a fragile, institutionally developing setting and indicates that the preventive dimension of forensic accounting is the stronger correlate of fraud control (Idrus et al., 2024; Nursansiwi, 2024). Methodologically, it adapts and validates instruments drawn from Alfordy (2022) and Shbeilat and Alqatamin (2022), with Cronbach's alpha coefficients of .847, .833, and .818, making a reliable measurement tool available for future research in similar contexts. Practically, the findings guide financial institutions in prioritizing preventive forensic controls (internal control reviews, segregation of duties, AML procedures) while strengthening the weakest detection practice identified — anti-fraud auditing (mean = 3.51) — and inform regulators and policymakers on integrating forensic accounting into national financial governance frameworks (Bhasin, 2013b).

6. Conclusion

This study examined the role of forensic accounting in detecting and preventing financial fraud in financial institutions in Somalia. The descriptive findings indicate generally positive perceptions of financial fraud detection and prevention practices among the participating institutions. The fraud-detection scale recorded an overall mean of 3.87 (SD = 1.072), while the fraud-prevention scale recorded an overall mean of approximately 3.86 (SD = 1.043).

The reliability analysis demonstrated satisfactory internal consistency across the study constructs, with Cronbach’s alpha coefficients of 0.847 for fraud detection, 0.833 for fraud prevention, and 0.818 for the forensic accounting and financial fraud scale. These results indicate that the measurement items were sufficiently consistent for further analysis.

Forensic accounting was significantly and positively associated with both financial fraud detection (r = .556, p < .001) and financial fraud prevention (r = .834, p < .001), supporting H1 and H2. In the multiple regression, fraud prevention was the only significant

unique correlate of forensic accounting ($\beta = .822$, $p < .001$), indicating that the preventive function is where forensic accounting has its greatest relevance.
The study contributes context-specific evidence on forensic accounting and fraud-control practices in Somalia's financial institutions. Nevertheless, the findings should be interpreted in light of the study's cross-sectional design, self-reported data, relatively small sample, and the resulting limitations on generalizability.

Limitations of the Study

The study's conclusions should be read in light of four limitations: the cross-sectional design, which precludes causal inference; the reliance on self-reported perceptions, which may be affected by respondent bias; the restriction to financial institutions in Somalia with a modest sample of 70 respondents (N = 70, 100% response rate), which limits generalizability and subgroup analysis; and the non-significance of fraud detection in the regression, which suggests its effect operates through prevention and warrants further investigation with larger samples and objective fraud-outcome measures.

Declarations Acknowledgements

None declared.

Conflict of Interest Declaration

The authors declare no conflict of interest.

Ethics Approval Statement

This study was approved by the Institutional Review Board of Hormuud University. Written informed consent was obtained from all participants, and anonymity and confidentiality were maintained throughout the data collection and analysis process. The data collected were used solely for academic purposes.

Data Availability Statement

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

Author Contribution Statement

All authors contributed to the conception and design of the study, questionnaire administration, data analysis, and interpretation of results, and approved the final manuscript.

References

Abdulrahman, S. (2019). *Forensic Accounting and Fraud Prevention in Nigerian Public Sector: A Conceptual Paper*. https://doi.org/10.46281/ijafr.v4i2.389

Agboare, E. I. (2021). *Impact of Forensic Accounting on Financial Fraud Detection in Deposit Money Banks in Nigeria*. https://doi.org/10.52589/ajafr-ruc0s0iq

Akinbowale, O. E., Mashigo, P., & Zerihun, M. F. (2023). *The integration of forensic accounting and big data technology frameworks for internal fraud mitigation in the banking industry*. https://doi.org/10.1080/23311975.2022.2163560

Alabi, A. T., & Ishola, A. (2022). *The Essence and Prospects of Forensic Accounting in Developing Countries*. https://doi.org/10.4018/978-1-7998-8754-6.ch011

Alfordy, F. D. (2022). *EFFECTIVE DETECTION AND PREVENTION OF FRAUD: PERCEPTIONS AMONG PUBLIC AND PRIVATE SECTORS ACCOUNTANTS AND AUDITORS IN SAUDI ARABIA*. https://doi.org/10.15240/tul/001/2022-3-007

Alharasis, E. E., Haddad, H., Alhadab, M., Shehadeh, M., & Hasan, E. F. (2023). *Integrating forensic accounting in education and practices to detect and prevent fraud and misstatement: case study of Jordanian public sector*. https://doi.org/10.1108/jfra-04-2023-0177

Amahi, F. U. (2023). *EFFECTIVENESS OF FORENSIC ACCOUNTING IN CURBING FINANCIAL CRIMES IN THE NIGERIAN PUBLIC SECTOR*. https://doi.org/10.51594/farj.v5i1.431

Anghel, G., & Poenaru, C.-E. (2023). *Forensic Accounting, a Tool for Detecting and Preventing the Economic Fraud*. https://doi.org/10.2478/vjes-2023-0018

AREFIN, T. (2026). *Forensic accounting as a tool for financial risk management in banking services*. https://doi.org/10.6084/m9.figshare.31095241

Aviantara, R. (2021). *The Association Between Fraud Hexagon and Government's Fraudulent Financial Report*. https://doi.org/10.21532/apfjournal.v6i1.192

Awwad, A., & Abdelsattar, A. (2025). *Digital Evidence in Forensic Accounting- A study in Saudi Legislation*. https://doi.org/10.1080/23311886.2025.2522958

Bhasin, M. L. (2013a). *Corporate Accounting Fraud: A Case Study of Satyam Computers Limited*. https://doi.org/10.4236/ojacct.2013.22006

Bhasin, M. L. (2013b). *Corporate Governance and Forensic Accountants' Role : Global Regulatory Action Scenario*. https://doi.org/10.12816/0001124

Bierstaker, J. L., Brody, R. G., & Pacini, C. (2006). *Accountants' perceptions regarding fraud detection and prevention methods*. https://doi.org/10.1108/02686900610667283

Daraojimba, R. E., Farayola, O. A., Olatoye, F. O., Mhlongo, N., & Oke, T. T. (2023). *FORENSIC ACCOUNTING IN THE DIGITAL AGE: A U.S. PERSPECTIVE: SCRUTINIZING METHODS AND CHALLENGES IN DIGITAL FINANCIAL FRAUD PREVENTION*. https://doi.org/10.51594/farj.v5i11.614

Dyck, A., Morse, A., & Zingales, L. (2023). *How pervasive is corporate fraud?* https://doi.org/10.1007/s11142-022-09738-5

Eghe-Ikhurhe, G. O., Roni, N. N., & Bonsu, M. O. (2024). *Forensic Accounting in Fraud Detection and Prevention. A Qualitative Investigation of Microfinance Institutions*. https://doi.org/10.32327/ijmess/13.3-4.2024.6

Habbash, M. (2010). *THE EFFECTIVENESS OF CORPORATE GOVERNANCE AND EXTERNAL AUDIT ON CONSTRAINING EARNINGS MANAGEMENT PRACTICE IN THE UK*. http://etheses.dur.ac.uk/448/

Homer, E. M. (2019). *Testing the fraud triangle: a systematic review*. https://doi.org/10.1108/jfc-12-2018-0136

Idrus, M., Adriana, N., Rustam, A., Sulistyowati, N. W., & Rewa, K. A. (2024). *The Impact of Forensic Accounting on Financial Fraud Prevention: A Comparative Analysis Across Countries*. https://doi.org/10.59613/m6jrt421

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. https://doi.org/10.1016/0304-405X(76)90026-X

Kassem, R. (2023). *External auditors' use and perceptions of fraud factors in assessing fraudulent financial reporting risk (FFRR): Implications for audit policy and practice*. https://doi.org/10.1057/s41284-023-00399-w

Kassem, R., & Higson, A. (2012). *The New Fraud Triangle Model*. https://doi.org/10.10520/ejc132216

Kassem, R., & Omoteso, K. (2023). *Effective methods for detecting fraudulent financial reporting: practical insights from Big 4 auditors*. https://doi.org/10.1108/jal-03-2023-0055

Kaur, B., Sood, K., & Grima, S. (2022). *A systematic review on forensic accounting and its contribution towards fraud detection and prevention*. https://doi.org/10.1108/jfrc-02-2022-0015

Kourtis, E., Kourtis, G., & Curtis, P. G. (2019). *An Integrated Financial Ratio Analysis as a Navigation Compass through the Fraudulent Reporting Conundrum: A Case Study*. https://doi.org/10.35808/ijfirm/187

Kulmie, D. A. (2023). *Financial Crimes in Somali Public Sector: Causes and Consequences*. https://doi.org/10.5539/ijef.v15n4p18

Lin, B., Huang, J., Liao, Y., Liu, S., & Zhou, H. (2022). *Why do employees commit fraud? Theory, measurement, and validation*. https://doi.org/10.3389/fpsyg.2022.1026519

Mabior, M. M., & Wanyama, K. W. (2024). *Role of Forensic Investigations in Reduction of Financial Fraud Among Commercial Banks in South Sudan*. https://doi.org/10.37284/ijfa.3.1.1845

Mahajan, V. (2025). *FORENSIC ACCOUNTING: A TOOL AGAINST CORPORATE FRAUDS IN EMERGING ECONOMIES*. https://doi.org/10.38193/ijrcms.2025.7344

Mardjono, E. S., Suhartono, E., & Hariyadi, G. T. (2024). *Does Forensic Accounting Matter? Diagnosing Fraud Using the Internal Control System and Big Data on Audit Institutions in Indonesia*. https://doi.org/10.37394/23207.2024.21.53

Memon, M. A., Ting, H., Cheah, J., Ramayah, T., Chuah, F., & Cham, T. (2020). *Sample Size for Survey Research: Review and Recommendations*. https://doi.org/10.47263/jasem.4(2)01

Mwangi, S. W., & Ndegwa, J. (2020). *The Influence of Fraud Risk Management on Fraud Occurrence in Kenyan listed Companies*. https://doi.org/10.20525/ijfbs.v9i4.943

Naz, I., & Khan, S. N. (2024). *Impact of forensic accounting on fraud detection and prevention: a case of firms in Pakistan*. https://doi.org/10.1108/jfc-01-2024-0010

Ndofor, H. A., Wesley, C. L., & Priem, R. L. (2013). *Providing CEOs With Opportunities to Cheat*. https://doi.org/10.1177/0149206312471395

Nursansiwi, D. A. (2024). *The Role of Forensic Accounting in Detecting Financial Frauds*. https://doi.org/10.62207/brkz8497

Odeyemi, O., Ibeh, C. V., Mhlongo, N. Z., Asuzu, O. F., Awonuga, K. F., & Olatoye, F. O. (2024). *FORENSIC ACCOUNTING AND FRAUD DETECTION: A REVIEW OF TECHNIQUES IN THE DIGITAL AGE*. https://doi.org/10.51594/farj.v6i2.788

Okere, W. (2018). *Forensic Accounting and Fraud Prevention and Detection in Nigerian Banking Industry Introduction*. https://doi.org/10.31031/cojrr.2018.01.000504

Okoye, E. I., & Gbegi, D. O. (2013). Forensic accounting: A tool for fraud detection and prevention in the public sector (A study of selected ministries in Kogi State). https://doi.org/10.2139/ssrn.3162992

Olukowade, E., & Balogun, E. (2015). *Relevance of Forensic Accounting in the Detection and Prevention of Fraud in Nigeria*. https://doi.org/10.12816/0017351

Onoja, E. E., & Adown, E. (2026). *Effect of Forensic Accountant Lifestyles Analysis on Financial Fraud Detection in Nigeria MDAs*. https://doi.org/10.38124/ijisrt/26may804

Oranefo, P. C., & Egbunike, C. F. (2021). *An Exploration of the Viability of Forensic Accounting Techniques in Combating Financial Statement Fraud in Nigerian Organizations*. https://doi.org/10.35912/amor.v3i1.1170

Ozili, P. K. (2015). Forensic accounting and fraud: A review of literature and policy implications. https://doi.org/10.14419/ijaes.v3i1.4541

Rahmahdita, L. N., Widyaningsih, A., & Apandi, N. N. (2024). *Pencegahan Fraud Akuntansi melalui Whistleblowing System dengan Peran Penerapan Perlindungan terhadap Whistleblower*. https://doi.org/10.37012/ileka.v5i2.2393

Saha, P., Dey, K. N., Chowdhury, M. T. I., Das, R. C., Khan, Md. A., Tanvir, M., & Halimuzzaman, M. (2025). *Applications of Forensic Accounting in Detecting and Preventing Financial Crimes*. https://doi.org/10.47747/ijfr.v6i2.2692

Schnatterly, K., Gangloff, K. A., & Tuschke, A. (2018). *CEO Wrongdoing: A Review of Pressure, Opportunity, and Rationalization*. https://doi.org/10.1177/0149206318771177

Shbeilat, M. K., & Alqatamin, R. M. (2022). *Challenges and forward-looking roles of forensic accounting in combating money laundering: Evidence from the developing market*. https://doi.org/10.22495/jgrv11i3art10

Shi, W., Connelly, B. L., & Hoskisson, R. E. (2016). *External corporate governance and financial fraud: cognitive evaluation theory insights on agency theory prescriptions*. https://doi.org/10.1002/smj.2560

Sule, S., Ibrahim, S. S., & Sani, A. A. (2019). *The Effect of Forensic Accounting Investigation in Detecting Financial Fraud: A Study in Nigeria*. https://doi.org/10.6007/ijarbss/v9-i2/5590

Tickner, P., & Button, M. (2021). *Deconstructing the origins of Cressey's Fraud Triangle*. https://doi.org/10.1108/jfc-10-2020-0204

Utama, A. N. B., & Purwoko, B. (2024). *Corporate Governance and Financial Transparency: A Legal Perpective on Reducing Fraud in Global Financial Markets*. https://doi.org/10.56442/ijble.v5i2.946

Wijaya, J. R. T., & Herwiyanti, E. (2023). *A study of information asymmetry in financial research*. https://doi.org/10.14414/tiar.v13i1.2935

Wilks, T. J., & Zimbelman, M. F. (2004). Decomposition of fraud-risk assessments and auditors' sensitivity to fraud cues. https://doi.org/10.1506/HGXP-4DBH-59D1-3FHJ

Wimelda, L., & Chandra, A. (2018). *Opportunistic Behavior, External Monitoring Mechanisms, Corporate Governance, and Earnings Management*. https://doi.org/10.35609/afr.2018.3.1(6)

Yunus, M., Sianipar, O. L., Saragih, K. Y., & Amelia, A. (2019). *Deteksi Financial Statement Fraud Berdasarkan Perspektif Pressure dalam Fraud Triangle*. https://doi.org/10.33395/owner.v3i2.229

Zezhong, X. (2026). *An empirical study of the impact of information technology on corporate financial reporting: a contingency perspective*. https://doi.org/10.17869/enu.289167