

IMPACT OF FORENSIC ACCOUNTING KNOWLEDGE ON DETECTING FRAUDS IN LISTED COMPANIES IN SRI LANKA: EVIDENCE FROM PRACTITIONERS IN SRI LANKA

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Abstract

This study explores the role of forensic accounting knowledge in fraud detection in Sri Lanka, an emerging industry with limited research and unresolved scandals in recent years. It could highlight how the findings differ from global trends or how they address specific challenges faced in the Sri Lankan context, while investigating the most significant skills and knowledge needed for forensic accountants to address fraud-related issues. By reviewing global and local perspectives, the study develops a conceptual framework that incorporates accounting skills, knowledge of procedures, forensic accounting expertise, and a legal background. A sample of 203 practitioners working in listed companies in Sri Lanka was surveyed using a structured questionnaire. The analysis employed descriptive statistics, factor analysis, and regression analysis to identify the most critical factors influencing fraud detection. Findings reveal that knowledge of forensic accounting and legal background are the most significant predictors of fraud detection, while accounting skills and procedural knowledge are less impactful. Moreover, practitioners with forensic accounting experience emphasised the importance of legal and forensic accounting knowledge, while those without such experience did not find any of the variables significant in fraud detection or prevention. This study underscores the need for specialised forensic accounting education and professional development in Sri Lanka to enhance fraud detection capabilities in the corporate sector.

Keywords: Accounting skills, Forensic Accounting, Fraud Detection, Knowledge of procedures, Legal background

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Introduction

Forensic accounting is a distinct area of accounting that applies accounting, auditing, and investigative techniques to uncover and avert financial fraud and wrongdoing. Due to the rising intricacy of business dealings and the globalisation of financial markets, the need for forensic accountants has significantly increased lately. In this chapter, the investigator will examine the progression of forensic accounting as a field, its importance in the contemporary business landscape, and its function in uncovering financial offences. The investigator will further address the essential principles and methods employed in forensic accounting, such as fraud investigation, litigation assistance, and expert witness testimony (Rathnasiri & Bandara, 2017). The fields of Accounting, Forensic Accounting, and Auditing are interconnected, and under various conditions, professional accountants or practitioners collaborate to fulfil their goals and requirements. Fraud and fraudulent incidents in the nation heightened the need for forensic accounting. Each day, the frequency of fraud incidents in the nation has increased and totals a larger sum. To uncover these frauds, a fundamental understanding of accounting will not suffice. Forensic accounting is viewed as an important area in accounting for uncovering fraud in the worldwide scenario. In legal settings, forensic accounting is commonly employed to uncover fraud. Fraud involves intentionally deceitful actions aimed at securing an advantage or making a profit. Forensic accounting is a fast-expanding area of accounting that pertains to the involvement arising from real or expected conflicts or legal actions. “Forensic” refers to being appropriate for presentation in a legal court. Forensic Accounting is an investigative approach to accounting aimed at identifying if a person or organisation has participated in any unlawful financial actions. Moreover, forensic accountants can offer litigation assistance and investigative accounting services (Oyebisi, 2018)

When it comes to the Sri Lankan Context, according to the Central Bank of Sri Lanka, some finance companies were bankrupt due to fraud and inability to manage funds, liquidity issues. There are publicly listed and nonpublic listed companies such as Golden Key (2008), The Central Bank of Sri Lanka (CBSL) bond scandal (2015), The Standard Credit Finance Ltd (2016), Central Investments & Finance Ltd (2018), TKS Finance Ltd (2019), ETI Finance Ltd (2020), The Finance Company PLC (2020). Regarding the Sri Lankan context, there is a question of how to use forensic accounting in fraud mitigation compared to the worldwide context. In light of the current situation, several studies have been carried out in the local context concerning this matter. Forensic accounting has emerged as a desirable career path in recent years, leading to a rise in the need for forensic accounting services to address fraud and the misuse of financial reports. Auditors require both accounting and auditing abilities as fundamental skills in their profession. Additionally, it is suggested that a greater number of questionnaires be circulated and extended to firms beyond the Big Four. The use of forensic accounting services has decreased the occurrence of fraud in manufacturing companies in Anambra state. It has additionally resulted in fraud prevention within manufacturing companies in Anambra state (Anyadufu & Uchechi, 2023).

Literature Review

Fraud involves actions taken to secure a benefit or profit. As stated by Walakumbura & Dharmarathna (2022), occupational fraud can be divided into three categories. Including asset misappropriation, financial reporting fraud, and corruption. Frauds can occur at any moment, in any place, or to any individual. An organisation inherently faces the risk of fraud, whether from an individual or a group that hides evidence. Once fraud is revealed, forensic accountants and forensic accounting professionals will arrive and use their expertise and professional scepticism to examine the information. As per Imoniana (2013), the research results indicate that auditors possess strong training and experience in identifying issues beyond just detecting fraud. Nonetheless, due to constraints in time and data, auditors will provide reasonable assurance regarding the qualification of any material misstatements

Frauds occur in both the private and public sectors. Fraud is a global issue since no country is exempt. Particularly, developing nations and their different regions are experiencing the greatest suffering (Okoye, 2013). Forensic Accounting applies accounting principles and methods to resolve legal issues. Forensic accounting encompasses the use of accounting principles, auditing methods, and investigative practices to address legal issues. The system of internal auditing and controls aids in preventing and detecting fraud (Oyebisi, 2018). In 2004, Wolfe and Hermanson contended that although earlier elements such as pressure, rationalisation, and opportunity exist, fraud is unlikely to occur without the fourth element, capability. In other terms, the possible offender needs to possess the skill and capability to carry out fraud. Capability encompasses Position, Intelligence, Ego, coercion, and stress, which are the foundational traits of capability. This factor is especially significant in relation to extensive or prolonged fraud. Consequently, the conclusion is that the previously mentioned factors influence fraud, how they influence it, and what circumstances are emerging as a result (Hassan et al., 2015) The literature on forensic accounting highlights several major themes, including fraud motivation, fraud consequences, fraud detection utilizing forensic accounting techniques, forensic accounting theory, forensic accounting skills, forensic accounting education, and forensic accounting jobs. These themes collectively reflect the diverse aspects and

applications of forensic accounting. They delve into understanding the motivations behind fraudulent activities, exploring the repercussions of fraud, examining methods for detecting fraud through specialised accounting techniques, developing theoretical frameworks for forensic accounting practice, honing the essential skills required in this field, addressing the educational needs of aspiring forensic accountants, and discussing the opportunities and challenges within forensic accounting careers.

Forensic accountants are essential in investigating the financial activities of companies or individuals, emphasising legal matters. Their main responsibilities include examining financial activities, identifying fraud, and creating reports that can serve as evidence in criminal or civil legal proceedings. These specialists offer investigative services focused on revealing financial discrepancies, including embezzlement, money laundering, or manipulation of financial statements. They aid in litigation by providing expert testimony and assisting legal teams with financial analysis and documentation.

In the context of Sri Lanka, certain laws have been enacted by the Sri Lankan parliament to combat fraud associated with corruption and bribery. Including the Prevention of Money Laundering Act No. 5 of 2006 and the Anti-Corruption Act No. 19 of 1994. Currently, Sri Lanka is experiencing an economic crisis, and most businesses have been impacted by numerous challenges related to economic, environmental, and social aspects. The depreciation of the rupee is primarily due to significant inflation, insufficient foreign exchange reserves, a high volume of imports, and a shortfall in exports.

Forensic accounting demands a wide range of abilities and expertise in fields like accounting, psychology, auditing, and legal matters. Fraud detection can involve the use of models. These models have been created by integrating psychological, quantitative, and advanced data analysis techniques on financial data. The Benish model demonstrates greater accuracy than Benford's Law. The primary conclusions of the research indicate that the competencies and techniques utilised in forensic accounting render this role an efficient means of identifying and averting fraud; nonetheless, it needs increased focus from educational organisations and specialised entities that prepare accounting professionals.

Methodology

The researcher has collected responses from 203 practitioners who are working in those organisations through distributing a questionnaire using sampling method of non-probability sampling method and using sampling technique of convenience sample since easy and inexpensive. The researcher has identified the Practitioners who are working in the listed companies in Sri Lanka as the target population for this study, with a total of 284 such companies as of May 31, 2024. In this study, researchers expect to use accounting skills, knowledge of forensic accounting, Legal background, and knowledge of procedures as independent variables. The dependent variable is fraud detection.

The study relies on primary data collected through structured questionnaires as the main source of information. The data collection process involved gathering responses from practitioners selected through purposive sampling. The research design is the plan and structure of the investigation. As such, the study is conducted using a deductive approach, which aims to validate or refute theoretical propositions through empirical investigation. In this research study, the non-probability sampling method has been used. Under the non-probability sampling, the convenience sampling method has been used. Convenience sampling means selecting participants based on their easy availability and preferring to participate in the study rather than through a random selection process. Convenience sampling is used because of time limitations and the prevalence of online platforms and social media; researchers often use this sampling method to meet a wide range of respondents inexpensively and quickly.

This approach aims to provide valuable insights into the relationships between various factors and the effectiveness of fraud prevention measures in different organisational settings.

The estimated regression equation is,

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + i$$

Where:

Y = Fraud detection

$\beta_0, \beta_1, \beta_2, \beta_3$ = Estimated Regression Coefficients

X 1 = Knowledge of procedures

- X 2 = Accounting skills
- X 3 = Knowledge of forensic accounting
- X 3 = Legal Background
- i = Random Error Term

Findings and Discussion

Normality test

Accounting Skills Skewness showed that the variable is negatively skewed, as the value stood at -0.346, thus described as having a long-left tail, while the kurtosis of -0.152 is known as a platykurtic distribution because it is less than 3. Also, Knowledge of Procedures Skewness showed that the variable is negatively skewed as the value stood at -0.330 thus described as has a long-left tail while the kurtosis of -0.885 is known as platykurtic distribution because it is less than 3 and Legal Background Skewness showed that the variable is negatively skewed as the value stood at 0.070 thus described as has a long Right tail while the kurtosis of -0.692 is known as platykurtic distribution because it is less than 3. When we consider Knowledge of Forensic Accounting, Skewness showed that the variable is negatively skewed, as the value stood at -0.563, thus described as having a long left tail, while the kurtosis of -0.720 is known as a platykurtic distribution because it is less than 3.

Table 1
Output of data normality

Variable	Skewness	kurtosis
Accounting Skills	-0.346	-0.152
Knowledge of Procedures	-0.330	-0.885
Legal Background	0.070	-0.692
Knowledge of Forensic Accounting	-0.563	-0.720
Fraud Detection	-0.331	-0.386

(Source: Authors' Compilation)

Table 2
Output of descriptive statistics of std. error of skewness & kurtosis

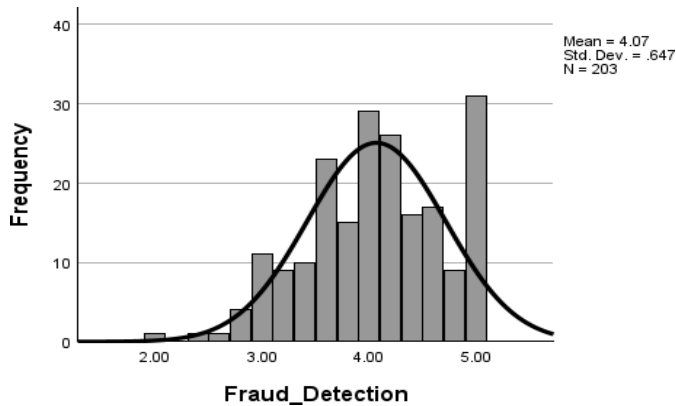
		AS	KP	LB	KFA	FD
N	Valid	203	203	203	203	203
	Missing	0	0	0	0	0
Mean		3.9692	4.1507	4.0315	4.2985	4.0680
Std. Deviation		.54328	.62990	.56795	.61640	.64663
Skewness		-.346	-.330	.070	-.563	-.331
Std. Error of Skewness		.171	.171	.171	.171	.171
Kurtosis		-.152	-.885	-.692	-.720	-.386
Std. Error of Kurtosis		.340	.340	.340	.340	.340

(Source: Authors' Compilation)

In a histogram which demonstrated a bell curve shape, indicating a normal distribution instead of 3 mean values. Overall, there is a normal distribution. In contrast, Figure 1 showed that the regression standardised residual line

fit into the variables significantly based on the P-P Plot analysis. In the below Normal Q-Q Plot graph, the circular dots that represent data points will be positioned approximately along the diagonal line in the Normal Q-Q Plot.

Figure 1
Histogram



(Source: Authors' Compilation)

A p-value greater than 0.05 (in this case, 0.200) suggests that there is no significant difference between the sample distribution and the normal distribution. A p-value greater than 0.05 (in this case, 0.088) also indicates that there is no significant evidence to reject the null hypothesis of normality. Therefore, the residuals are likely to follow a normal distribution.

Table 3
Normality test

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual	.051	203	.200*	.988	203	.088

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

(Source: Authors' Compilation)

Reliability test

Reliability of the study was assessed with Cronbach's Alpha. For the reliability test on Accounting Skills, 4 items were raised, and the Cronbach's Alpha is 0.812. 5 items under Knowledge of Procedures were considered, and the Cronbach's Alpha is 0.900. Also, for the reliability test on Legal Background, 5 items were raised, and the Cronbach Alpha is 0.885. 5 items under Knowledge of Forensic Accounting were considered, and the Cronbach Alpha is 0.899; 5 items under Fraud Detection were considered, and the Cronbach Alpha is 0.894. From the Cronbach Alpha result, it was discovered that all items are reliable and meet the threshold requirement of 0.7.

Table 4
Output of the reliability analysis

Variable	Cronbach's Alpha	N of Items
Accounting Skills	0.812	4
Knowledge of Procedures	0.900	5
Legal Background	0.885	5
Knowledge of Forensic Accounting	0.899	5
Fraud Detection	0.894	5

(Source: Authors' Compilation)

Validity test

According to Shrestha (2021), factor analysis is a technique which can be used to reduce the large number of variables into a smaller number of outlying factors. The researcher has used principal component analysis by considering accounting skills, knowledge of procedures, legal background and knowledge of forensic accounting as the independent variables and fraud detection as the dependent variable. Furthermore, the researcher has performed the varimax rotation to make the output more reliable and easier to interpret. Later on, the researcher employed KMO to measure the sample adequacy.

Regression analysis

Generally, if the R-squared value is more than 0.5, it will imply the dependent variable is covered by the model by 50% and the model is nicely fitted. There should not be a huge gap between R-squared and Adjusted R Square. If there is a huge gap between them, it means there are unnecessary independent variables in the model. R Square tells the proportion of the variance in the dependent variable (Fraud Detection) that is explained by the independent variables (Knowledge of Forensic Accounting, Knowledge of Procedures, Accounting Skills, and Legal Background). In this case, 14.8% of the variation in fraud detection can be explained by the predictors. This is considered a low R² value, suggesting that the model is not explaining much of the variance in the dependent variable. Even with a low R², if predictors are statistically significant, there will be a meaningful relationship with the dependent variable. Furthermore, in this case, the Durbin-Watson value of 1.516 is very close to 2, suggesting that there is no significant autocorrelation in the residuals. The residuals appear to be independent, which is a good sign for the validity of the regression model.

Table 5
Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.384 ^a	.148	.130	.60304	1.516

a. Predictors: (Constant), Knowledge of Forensic Accounting, Knowledge of Procedures, Accounting Skills, Legal Background

b. Dependent Variable: Fraud Detection

(Source: Authors' Compilation)

Table 6
Anova test table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.459	4	3.115	8.565	<.001 ^b
	Residual	72.003	198	.364		
	Total	84.462	202			

a. Dependent Variable: Fraud Detection

b. Predictors: (Constant), Knowledge of Forensic Accounting, Knowledge of Procedures, Accounting Skills, Legal Background

(Source: Authors' Compilation)

There are no concerns about multicollinearity, as the tolerance values are above 0.1 and the VIFs are below 10. After regression analysis, the researcher decides on the ultimate decision of what the significant factor which influences fraud detection based on the P value.

When considering about P value, it implies a significant Level. The P value of the Accounting Skills, Knowledge of Procedures, Legal Background and Knowledge of Forensic Accounting is 0.464, 0.575, 0.026 and <0.001, respectively. When it comes to the P value of Accounting Skills is 0.464 and which is above 0.1, and it implies insignificant. Accounting skills do not individually have a significant impact on fraud detection. Therefore, the hypothesis should be rejected. P-value of Legal Background is 0.026 and which is below 0.05, and it implies significance. Therefore, it implies that Legal Background has a significant impact on fraud detection. Hence hypothesis can be acceptable. P-value of Knowledge of Forensic Accounting is 0.001 and which is below 0.01 and it implies a significantly high. Therefore, it implies that Knowledge of Forensic Accounting has a highly significant impact on fraud detection. Hence hypothesis can be acceptable value of Knowledge of Procedures is 0.575 and which is above 0.1 and it implies not significant. Therefore, it implies that Knowledge of Procedures is insignificant in fraud detection. Therefore, the hypothesis should be rejected. As per the above analysis, the Accounting Skills and Knowledge of Procedures have been removed from the final model because of insignificance. The model below has been selected as the fitted regression model.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon$$

$$\text{Fraud Detection} = 2.118 + 0.283x_1 + 0.205x_2 + \epsilon$$

The estimated regression coefficient (β_0) indicates that it is expected to detect 2.118 when there is no impact of independent variables. At the same time, β_1 describes that fraud detection can be increased by 0.283 if the Knowledge of Forensic Accounting increases by 1 unit. β_2 describes that fraud detection can be increased by 0.205 if Legal Background increases by 1 unit. β_3 describes that fraud detection can be increased by 0.042 if knowledge of procedures increases by 1 unit, but it is not significant to the fraud detection since there is a low P value. Knowledge of Forensic Accounting and Legal Background are significant predictors of fraud detection, with positive coefficients indicating that higher levels of these variables lead to better fraud detection. Accounting Skills and Knowledge of Procedures are not significant predictors in this model.

According to Sayeed Siddiqui et al. (2023) states that there is a significant impact of forensic investigation, forensic litigation and forensic accountant investigation tenure on fraud detection in the private sector of Pakistan. The study found a strong correlation between increased forensic accounting practices and increased fraud detection. This implies that as organisations implement more robust forensic accounting procedures, they are more likely to identify and prevent fraudulent activities. The findings of the study revealed that there is a significant impact in between the accounting skills, knowledge of procedures and knowledge of forensic accounting on fraud detection, while there is no significant impact of the legal background and fraud detection (Walakumbura & Dharmarathna, 2022).

According to existing literature and findings of this research implies that when forensic accountants work in his or her profession, a forensic accountant needs knowledge of forensic accounting and legal background knowledge for detecting and preventing fraud, rather than accounting skills and knowledge of procedures. For each variable researcher used a questionnaire to measure those variables and refer to the appendix.

Conclusion

In conclusion, this study highlighted the limited research on forensic accounting in Sri Lanka, especially within specific industries, and underscored the need for specialised knowledge in addressing fraud detection. The research identified significant gaps in forensic accounting knowledge, particularly in the context of Sri Lanka, where several scandals remain unresolved. The study's data come from limited sources, making it less representative of the overall population and reducing the generalizability of its findings. Additionally, while the research emphasises the importance of knowledge in forensic accounting, it fails to explore how professionals can practically develop the necessary skills through training, education, or certifications, leaving a gap in understanding how forensic accountants can effectively build their expertise. Future research should focus on advanced data analysis tools using AI, data mining, and machine learning to address complex, digital-era fraud. Organisations should prioritise experienced personnel in internal controls to improve fraud detection and risk management. Continuous updates in legal frameworks across various countries necessitate a deep understanding and awareness of new regulations and laws. Forensic accountants must not only grasp this evolving legal knowledge but also integrate it within their specific industries.

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