



Consideration of International Standard on Auditing (ISA 240) for Sustainable Financial Fraud Detection: Evidence from Malaysia

Hussein H. Sharaf-Addin^{1*}, Normah Omar² and Nor Azam Bin Yaacob³

¹ Department of Management and Humanities, Universiti Teknologi PETRONAS, Malaysia

² Accounting Research Institute, Universiti Teknologi MARA, Malaysia

³ Accounting Department, Universiti Kuala Lumpur, Malaysia

* Corresponding author: hussein.sharaf@utp.edu.my

Abstract. This study examines auditors' understanding and application of the International Standard on Auditing (ISA 240) in their audit of financial statements in Malaysia for sustainable fraud detection. The study aims to address two key issues: first, the auditors' comprehensive understanding of ISA240 standards, and second, the auditors' characteristics related to ISA240 standards when auditing financial statements for sustainable fraud detection. Based on the Fraud Diamond Theory, a questionnaire was developed through the key elements: "pressure," "opportunity," "rationalization," and "capability". The respondents involved three types of auditors: external auditors, internal auditors, and governmental auditors in Malaysia. A questionnaire link was distributed through contact persons, and 313 completed responses were collected over three months, from July to September 2023. Data analysis was conducted using the Rasch Measurement Model. The results indicate that, although auditors recognize the utility of fraud risk indicators outlined in ISA 240, their practical application remains limited. The results strongly support the need for customized training programs to maintain auditors' ability to sustainably detect financial fraud with accuracy and excellence. Such programs are crucial given the specialized expertise required to uncover such fraud, which demands specific training modules. The study provides valuable insights into the perceptions of auditing standards and the essential role of professionals, particularly auditors in Malaysia. From a methodological perspective, the study utilized the Rasch Measurement Model to allow for the seamless integration of both quantitative and qualitative aspects of the results.

Keywords: Financial Statements, Sustainable Fraud Detection, External Auditors, Internal Auditors, Government Auditors, ISA 240.

1 Introduction

In the new millennium, there has been a significant rise in "white-collar crimes" involving professionals and, in some instances, management. In contrast to "blue-collar crimes" that have been witnessed by previous studies, which are typically minor and petty, white-collar crimes involve substantial monetary value. In certain cases, these crimes are often dismissed or prematurely closed due to insufficient evidence to

© The Author(s) 2025

L. F. Woon and S. Kaur Johl (eds.), *Proceedings of the International Conference on Environmental, Social, and Governance (ICESG 2024)*, Advances in Social Science, Education and Humanities Research 889,

https://doi.org/10.2991/978-2-38476-358-0_11

prosecute and convict the perpetrators. However, fraudulent activities, such as white-collar crimes, undeniably place a heavy burden on society. Surveys on fraud conducted by professional organizations like KPMG (2011) and ACFE (2012) in Malaysia underscore the increasing prevalence of financial fraud. The estimated magnitude of this issue is substantial, comprising approximately 5% of a typical organization's revenue, totaling an estimated USD 3.5 trillion annually (ACFE, 2012). This staggering amount has sparked public outrage, particularly as high-profile cases continue to make headlines worldwide. In the USA, for example, the Statements on Auditing Standards 99 – Consideration of Fraud in Financial Statements Audits (SAS 99) were introduced to address financial statements fraud. Similarly, the International Standards on Auditing 240 – The Auditor's Responsibilities Relating to Fraud in the Audit of Financial Statements (ISA 240) – was developed by the International Auditing and Assurance Standards Board (IAASB) under the International Federation of Accountants (IFAC) and adopted in other countries. However, ISA 240 has been designed based on the Fraud Triangle Theory, which comprises three dimensions: "pressure", "opportunity", and "rationalizations". Within each dimension, specific fraud risk indicators are detailed, providing auditors with valuable tools for assessing an organization's financial statements during an audit. In addition to outlining items related to the three Fraud Triangle dimensions, ISA 240 includes explanatory notes, illustrative examples, and circumstances that signal the possibility of fraud. However, ISA 240 also mandates that auditors exercise professional skepticism and professional judgment when scrutinizing financial statements. They must consider fraud risk factors that can aid in identifying the risk of material misstatements in the financial statements resulting from fraud (Al-Dhubaibi & Sharaf-Addin, 2022).

In Malaysia, ISA 240 became effective for financial statements audits beginning on or after December 15th, 2009. The need for the ISA 240 comes from the proactive efforts and attention of auditors for detecting and preventing business fraud (Hashim et al., 2019). In addition, Moyes et al. (2013) found that Malaysian internal and external auditors perceive the 59 red flags of Statement of Auditing Standards (SAS) in detecting fraudulent financial reports. However, among the notable provisions in these two standards are specific measures that auditors are required to enforce and implement in their professional capacity as crucial gatekeepers, tasked with providing checks and balances in the interest of the public and stakeholders. Based on the study conducted by Moyes et al. (2009) on Malaysian auditors' perception of both standards, ISA 240 and SAS 99, there are significant relationships between each red flag and each specific professional demographic factor perceived by all auditors, internal, external, and governmental auditors. However, the auditors' understanding and application of ISA 240 indicators for auditing financial statements fraud regardless of auditors' professional demographic factors are still ambiguous in Malaysia. Hence, this study aims to fill this gap by providing empirical insights on the understanding and applying ISA 240 indicators by internal, external, and governmental auditors.

This study employs the comprehensive red flags outlined in ISA 240 to examine auditors' understanding and application of these indicators during their audits of an organization's financial statements for sustainable fraud detection. The remainder of the paper is structured as follows: The second section offers an overview of prior studies and hypotheses development. The third section outlines the research methodology

employed. Subsequently, the fourth section presents the research findings. Finally, the results are discussed, and the study is concluded in the fifth section.

2 Literature Review and Hypotheses Development

2.1 Auditors Responsibilities Relating to ISA 240

Please note that the first paragraph of a section or subsection is not indented. The first paragraphs that follows a table, figure, equation etc. does not have an indent, either. The primary responsibility for preventing and detecting fraud lies with an organization's top management. Therefore, management must establish effective governance and mechanisms to mitigate and detect fraud while providing oversight. During the auditing of an organization, auditors bear the responsibility of obtaining reasonable assurance that the financial statements taken as a whole are free from material misstatement, whether caused by fraud or error (Halbouni, 2015). The specific responsibilities of auditors regarding fraud in the audit of an organization's financial statements are outlined in ISA 240 (Chong, 2013). Historically, financial statements fraud has occurred despite the provision of auditing services. This can be attributed to a weak internal control system, inadequate property security measures, and unclear company policies (Huang et al., 2017). However, Mangala and Kumari (2017) reported that corporate governance is the most effective technique against fraud, followed by using information technology, timely audits, regular inspections, and corporate policies and procedures. Moreover, auditors are required to find material misstatements in the financial statements, and as corruption creates such misstatements, the auditors are responsible for preventing and detecting corruption (Jeppesen, 2019). Over time, the role of auditors has evolved, with additional objectives and responsibilities being assigned to them. Both internal and external auditors play a significant role in detecting and mitigating fraud in financial statements and promoting effective and high-quality corporate governance (Halbouni, 2015).

In 1999, the American Institute of Certified Public Accountants (AICPA) introduced a Core Competency Framework (Bolt-Lee & Foster, 2003) which is a key component of their CPA program. This framework encompasses three broad areas: functional, personal, and a broad business perspective category. The first functional category includes a subsection on risk analysis, focusing on the identification and management of audit risk about the detection of misstatements. However, it is notable that in this framework, the specific functional role of an auditor in detecting potential fraud was not prominently emphasized by the AICPA. While it is commendable that AICPA has initiated its competency framework, more work needs to be done to ensure that auditors not only achieve high competency levels but also maintain the intended objectives in performing their respective tasks. Gupta (2011) proposes a further competency framework for professionals emphasizing that the content or syllabus at hand should be as realistic as possible, avoiding a purely theoretical or hypothetical approach. The use of case studies, for instance, is bound to be more fruitful and pragmatic in educating auditors on red flag usage and identification. However, it was noted a gap, as both competency frameworks have not addressed the inclusion of red flag identification, which is integral to the new approach advocated by Statement of Auditing Standards

(SAS 99), emphasizing the importance of maintaining professional skepticism when working with clients.

However, SAS 99, also known as “Consideration of Fraud in a Financial Statements Audit”, was introduced in the USA alongside the Sarbanes-Oxley Act after the corporate scandals involving WorldCom, Enron, and Tyco International (Alleyne & Howard, 2005). Its purpose was to expand auditors’ responsibilities in fraud detection, including professional skepticism (Alleyne & Howard, 2005). As a result, auditors were given new responsibilities, effectively becoming another arm of government agencies to detect and prevent fraud. Similarly, ISA 240 outside the USA plays a crucial role in guiding auditors in addressing financial statements fraud. This standard recognizes financial statements fraud as stemming from either intentional fraud or unintentional error (Halbouni, 2015). Moreover, ISA 240 recognizes financial statements fraud as stemming from either misrepresentation in financial reporting or misstatements due to asset misappropriation (Majid et al., 2001). In this regard, ISA 240 outlines ten specific requirements that auditors must adhere to when auditing their clients’ financial statements to ensure compliance and accuracy.

The first requirement outlined in ISA 240 is that auditors must uphold “professional skepticism” throughout their audit. Essentially, this means that auditors are obligated to pursue additional investigation if they have a reasonable suspicion that the records and documents provided during a financial statements audit may not be genuine (Nelson, 2009; Yucel, 2013; Al-Dhubaibi & Sharaf-Addin, 2022). The second requirement mandates that before starting an audit engagement, audit teams must conduct a brainstorming session to consider potential fraud. If auditors suspect any material misstatements due to fraud or error, they must hold detailed brainstorming sessions (Mangala & Kumari, 2017). Several studies have shown that engagement teams that practice brainstorming sessions generate higher-quality fraud risk assessments (e.g. Carpenter, Reimers, & Fretwell, 2011; Chong, 2011; Kassem, 2014; Mangala & Kumari, 2017), compared to those that do not or those where auditors brainstorm in isolation. Additionally, the quality of these brainstorming sessions acts as a moderator between fraud risk factors and fraud risk assessments (Brazel et al., 2010). The primary objective of these sessions is to identify areas of high risk for misstatements, weaknesses in internal controls, or cultural factors that may promote fraud. For instance, in the USA, Enron’s corporate culture was infamous for ignoring government rules (Branson, 2003) and SEC regulations in pursuit of success (Choo & Tan, 2007).

The third requirement pertains to the auditor’s responsibility to conduct “Risk Assessment Procedures and Activities” for their clients. Auditors are expected to evaluate internal control procedures and identify potential weaknesses that could be exploited for fraudulent activities (Petraşcu & Tieanu, 2014). There is evidence to suggest that implementing risk management procedures, such as recruitment screening, can significantly decrease the likelihood of fraud occurring within a company (Zanzig & Flesher, 2011; Council, 2011; Shah & Okeke, 2011; Moyes et al., 2013). Additionally, there is a growing argument for the development of programs related to fraud risk management and the oversight of internal controls by audit committees in companies (Moyes et al., 2013; Jeppesen, 2019; Al-Dhubaibi & Sharaf-Addin, 2022). Furthermore, auditors need to establish specific risk indicators to match their respective

client profiles which the auditors need to use as and when the likely fraud incident is to happen while engaging their clients (Smith et al., 2005).

While the fourth requirement under ISA 240 emphasizes the use of a risk-based approach by auditors to identify and assess the risk of material misstatements, the fifth requirement mandates auditors to review the accounting policies employed by their clients, especially when they sense the likelihood of fraud. A retrospective review of clients' judgments on accounting estimates, for instance, is essential to mitigate fraud-related risks (McKee, 2006; Nigrini, 2011). For example, auditors should be alert to the possibility of fraud when there are indications of revenue overstatement or improper timing of revenue recognition, known as the "cookie jar" practice (Schilit, 2010). According to Petraşcu and Ticanu (2014), the misapplication of accounting policies related to accounting procedures and information disclosure could be a kind of fraud that should be detected by internal auditors.

Meanwhile, the sixth requirement under ISA 240 highlights the significance of "Evaluation of Audit Evidence" in discerning the likelihood of fraud. It behooves auditors to scrutinize whether supplementary sampling or appraisal techniques may be required and to exercise prudence in determining matters related to fraud (Simborg, 2011). The seventh requirement concerns the "Continuity of the Audit Engagement". If auditors' findings implicate fraud or misstatements, the standards recommend that auditors consider withdrawing from the engagement, as discontinuing the audit may be necessary (Bobek et. al, 2012). The eighth requirement of ISA 240 pertains to "Written Representation". As part of the audit engagement process, auditors' clients are required to express their commitment to fraud detection and maintaining strong internal controls in the "Management Representation" letter. This helps auditors ensure that their clients provide truthful and transparent information. Meanwhile, if fraud is identified, the ninth requirement under ISA 240 mandates auditors to report their findings to the relevant governance authority within the client's organization. Typically, this information should be shared with a higher-level authority than the individual who committed the fraud. Auditors need to act promptly in conveying this information so that the client can take necessary actions. The ultimate requirement under ISA 240 is to protect their clients' confidentiality, as specified in Section 140 of the Malaysian Institute of Accountants (MIA) by Law (Ismail & Mustapha, 2015). Generally, confidential client information cannot be shared with third parties without the client's consent. Nevertheless, there may be instances where auditors must report fraud to law enforcement agencies; in such cases, they must seek legal guidance.

2.2 Types of Auditors Covered by ISA 240 and Other Legislation in Malaysia

Auditors are required to adhere to all the specified regulations of ISA 240 as part of their professional obligations. Typically, three types of auditors are directly affected by this standard: external auditors, internal auditors, and governmental auditors. The tenth requirement of the standard is particularly pertinent in this context. In addition to ISA 240, auditors operating within the Malaysian legal framework must consider relevant legislative Acts that impact their work. Notably, the Anti-Money Laundering and Terrorism Financing Act (AMLATFA, 2001) mandates that auditors have to file a "Suspicious Transaction Report (STR)" when financial statement fraud may involve money laundering offenses. Auditors are classified as "Designated Non-Financial

Business Professions (DNFBPs)” under Schedule II of this Act. AMLATFA takes precedence over Malaysian Institute of Accountants (MIA) by-laws related to a client’s confidentiality. Failure to report to the appropriate authorities may result in auditors facing the prescribed fines or jail sentences.

When their audit clients are listed on the stock exchange, auditors are subject to the specific requirements of the Capital Markets and Services Act (2007). Section 128 of the Act mandates that auditors are duty-bound to report any breaches of securities laws by their clients. The governing authorities for auditors to make such reports are the Bursa Malaysia and the Securities Commission. Additionally, auditors may seek protection under the provisions of the Whistleblower Protection Act (2010) when they communicate information directly to the regulatory body. This protection is applicable in cases where reports are made.

2.3 Previous Studies on Financial Fraud Detection

It is common practice for a business entity to prepare financial statements, a crucial step to meet the demands of various stakeholders. These stakeholders have different interests and rely on financial statements for various reasons. Investing shareholders, for example, closely examine the firm’s performance and its “bottom line”, often in the form of dividends and capital gains (Hines, 1982; Lee & Tweedie, 1975; Hodge & Pronk, 2006). Government tax agencies use financial statements to assess how much tax can be collected. Capital market regulators, such as the Securities Commission, require financial statements for supervisory purposes (Humphrey et al., 2009). Others, including employees, debtors, and creditors, rely on these statements to gauge the entity’s status, especially for the vital purpose of ensuring the entity’s continued existence while they are either employed by or transacting with it.

Despite the diverse needs of various stakeholders, most business environments worldwide establish an audit function to assess the accuracy of financial statements. It’s important to note that an auditor’s role is not to verify every detail presented in the financial statement (Anderson et al., 1998). Instead, auditors are tasked with providing an assessment of the financial statements to ensure they present a true and fair view (Alexander & Jermakowicz, 2006). This service, offered by auditors, enhances the credibility of financial statements. One of the primary reasons for the demand for auditing services is to protect the interests of shareholders in a company.

Another recurring theme in society pertains to the expectation gap regarding the role of auditors. This gap represents the disparity between the actual job functions and responsibilities of auditors and the expectations of society regarding what auditors should be doing (Arrington et al., 1983). Despite being a long-recognized issue by auditors, continuous accounting scandals exacerbate the problem, and the expectation gaps persist (McEnroe & Martens, 2001). One critical area of concern for society is holding auditors accountable when there is an accounting scandal. After resisting the primary responsibility for fraud detection, the audit profession eventually yielded, and standards were issued to require auditors to adopt a skeptical mindset when conducting audits. This study focuses on how auditors fulfill their responsibilities for fraud detection, utilizing the guidelines provided in the audit standard ISA 240, particularly the red flags indicators.

Schilit (2010) identifies five of the most prevalent types of financial statement fraud: Fictitious Revenue, Timing Differences, Improper Asset Valuation, Concealed Liabilities and Expenses, and Improper Disclosures. Fictitious Revenue occurs when a company records sales of goods or services that never existed. A notable example of this occurred in the case of Satyam (Kunal, 2011), an IT company. However, financial statement fraud can also occur due to timing differences. For example, profit or even loss will be affected when revenue or expenses are being shifted back or forth depending on the perpetrator's intention. One common scam is the practice of bill and holds when no actual sales were concluded yet sales billing was created (Kranacher et. al, 2010). On the other hand, Improper Asset Valuations can also contribute to financial statement fraud. This happens when the value of an asset is inflated to create the impression that a company is worth more than it should be. For instance, Mason (2010) discusses a report from the Daily Telegraph revealing that an oil company over-reported its oil reserves, leading to the improper valuation of its assets.

However, financial statement fraud can also result from concealed liabilities and expenses. In this scenario, a company's financial records present a more favorable position by understating its debt. For example, Daewoo employed this tactic by using hundreds of subsidiaries to conceal its liabilities (Kim, 2005). Finally, financial statement fraud can also occur due to improper disclosure by the company. A fraudster may, for instance, either fail to disclose enough information or create complex business strategies and terminologies instead of providing material information in the financial statements. Madoff, for instance, operated an investment firm using a "complicated split-strike options" strategy when, in fact, it was a Ponzi scheme (Baldwin, 2010). Enron, on the other hand, exploited the use of hundreds of special-purpose vehicles or subsidiaries to conceal their liabilities (Macey, 2003).

2.4 The Underpinning Theory of Fraud

As cited by Galliher and Guess (2009), Sutherland first proposed a white-collar crime theory in 1946, primarily discussing non-violent crimes involving embezzlement of money. Years later, his student Cressey (1973) introduced the Fraud Triangle theory, which consists of three essential elements required for fraud to occur. These three elements are "Opportunity", "Pressure", and "Rationalization". The Fraud Triangle theory has been the most dominant in this field and serves as a foundation for research in this area (Choo & Tan, 2007).

"Opportunity" refers to the circumstances in the environment that increase the likelihood of fraud occurrence. Perpetrators skillfully identify these opportunities and exploit them for personal gain. One possible reason for this is the "low-hanging fruit" factor, indicating that the situation makes fraud relatively easy to undertake. Research indicates that accountants themselves sometimes commit fraud, as they are the ones responsible for preparing financial statements, making it easier for them to engage in fraudulent activities (Dellaportas, 2012). Another common criterion is the nature of assets, such as microchips, which are small in size but high in value. Businesses operating on a cash basis are also more likely to report a high incidence of fraud. The industry's nature may also contribute to fraud opportunities. For example, creative accounting was found to be prevalent in the entertainment industry, with Hollywood studios engaging in such practices (Ali Shah et al., 2011). Likewise, pharmaceutical

companies conducted illegal studies and defrauded people in third-world countries by colluding with corrupt doctors to conduct illegal drug trials (Lorenzo et al., 2010). Patients were deceived and given trial drugs without their knowledge or consent. Another common form of fraud by large corporations is tax evasion, where the line between legal avoidance and illegal evasion, known as tax avoidance, can be blurred. Corporations often opt for the latter. Google, for instance, is known for using a technique called the “double Irish sandwich” through transfer pricing (Loomis, 2012). Moreover, there was a public outcry that Starbucks, operating in the UK, did not pay taxes despite being profitable for 15 years (BBC, 2012). Kris Engskov, Starbucks’s managing director, later pledged that the company would pay more taxes in the future. In the same BBC article, it was mentioned that Amazon also paid little taxes. Finally, weak internal control and a lack of management oversight are often cited as opportunities for fraud (Dellaportas, 2012). In general, a company is more likely to experience fraud as an inside job than in other scenarios.

On the other hand, “Pressure” can manifest in various forms, including personal financial distress caused by bad habits like alcohol, gambling, or drugs. In some cases, the pressure is not purely financial but stems from a desire to “keep up with the Joneses”, a common reason why fraudsters perceive the need to obtain more money, legally or otherwise (Stanley & Danko, 2000). The pursuit of monetary success can drive corporate executives to resort to illegal means, influenced by strong materialistic values as suggested by the American Dream theory (Choo & Tan, 2007). The symbol of success is often associated with accumulating material wealth and maintaining a certain status within society. Owning the latest gadget upon release has become an obsession to showcase one’s status symbol. Furthermore, business entities may feel pressure to meet forecasted results by various parties (Dechow & Skinner, 2000). Studies have shown that companies often engage in earnings management, particularly to meet analyst forecasts after their listing date (Ismail & Weetman, 2007; Koh et al., 2008; McVay et al., 2006), or when directors have made profit guarantees before listing (Ismail & Weetman, 2008). In larger organizations, strain in employer-employee relationships may lead to fraudulent activities as well. Common examples include pilfering office supplies (Brantingham & Brantingham, 1993), making personal photocopies, non-business calls, abusing expense accounts, or conducting personal trades during office hours using company equipment (Adams, 2011). Fraudsters may cite low wages as a reason for engaging in such unscrupulous activities.

The final element, “Rationalization”, pertains to the moral compass of the fraudster. Cressey (1973) mentions that humans have inherent ethics, but rationalization is the turning point that allows them to justify, at least to themselves, the fraud they are about to commit. Companies that fail to set the correct tone at the top or provide ethical guidelines often find that lower-level staff are more likely to engage in fraud within the company hierarchy. For example, when junior staff members become aware that their manager is abusing company expenses, they are more likely to follow suit in matters within their circle of influence (Covey, 1990).

2.5 Hypotheses Development

To address the study’s objectives regarding auditors’ utilization of fraud risk indicators and the potential influence of auditors’ demographic characteristics on this utilization,

two hypotheses have been formulated. However, a South African study by Koomhof and Plessis (2000) assessed the perceived significance of individual red flag indicators by investors and lenders. The findings revealed that all red flags were deemed useful. Moreover, Moyes et al. (2009) studied the effectiveness of ISA 240 and SAS 99 red flags in auditing the financial statements in Malaysia. Despite that the findings showed an acceptable level of perception from all the external, internal, and governmental auditors towards the three domains of ISA 240, their use is still at the earlier stages as they still need to learn and understand the red flag correctly. Recently, Al-Dhubaibi and Sharaf-Addin (2022) analyzed the external and internal auditors' use of the ISA 240 red flag in Saudi Arabia. Their findings suggested a positive association between their use and estimation of fraud pervasiveness. Nonetheless, these studies could not establish a definitive ranking of these indicators due to respondents' limited utilization of their professional tasks. Thus, this study proposes that all auditors, being the main users of fraud risk indicators as mandated by ISA 240, must possess the necessary skills to competently implement these indicators when auditing financial statements fraud. Based on this proposition, the first hypothesis (H1) is articulated as follows:

H1: Auditors are capable of using red flag indicators discriminately as mandated by auditing standards.

In addition, previous studies (Breesch & Branson, 1991; Ittonen & Peni, 2012; O'Donnell & Johnson, 2001) have suggested that auditors' demographic characteristics may influence their audit practices and the potential utilization of audit tools. In this study, "demographic characteristics" encompass auditors' gender, auditor type, level of audit experience, and educational background. The second hypothesis thus centers on these demographic elements, as outlined below:

H2a: Male and female auditors use different red flags for sustainable fraud detection.

H2b: Different types of auditors use different red flags for sustainable fraud detection.

H2c: Auditors' selection of red flags for use varies based on their experience level.

H2d: Auditors with higher levels of education use more red flags for sustainable fraud detection compared to auditors with basic education.

3 Methodology

3.1 Research Instrument

The study used a questionnaire survey to collect the primary data from the three types of auditors: internal auditors, external auditors, and governmental auditors. The questionnaire includes the four fraud risk dimensions of the Fraud Diamond Theory. Essentially, based on these four dimensions, a total of 64 items were accordingly grouped into 1) Opportunities (29 items), 2) Pressure (15 items), 3) Rationalization (15 items), and 4) Capability (5 items). The items were measured using a four-point Likert

scale, namely, “4 = Always”, ”3 = Often”, “2 = Rarely,” and “1 = Never,” based on the fraud risk factors listed in ISA 240.

3.2 Data Collection and Analysis

Using the random sampling technique, a research sample of 400 participants was selected for each of the three types of auditors in Klang Valley, Malaysia: internal auditors, external auditors, and governmental auditors. A total of 313 completed responses were received through the distributed e-questionnaire and used in the data analysis. The collected data was analyzed using the Rasch Measurement Model with the assistance of Winsteps software. However, six responses were identified as “outliers” (having either the maximum score of 4 or the minimum score of 1 for all items) and were subsequently removed by the Winsteps software during the initial analysis. Additionally, six respondents were excluded due to a lack of responses. Furthermore, 61 responses violated the fit statistic quality control measure. Therefore, after excluding 73 respondents, only 240 were left for the analysis.

4 Results

4.1 Reliability and Validity Analysis Results

To assess the reliability of the developed instrument, the initial stage of Rasch analysis was conducted to confirm the suitability and relevance of the questionnaire in measuring the ISA 240 indicators from the perspective of the respondents (the auditors). In addition to the instrument’s reliability test via Cronbach’s Alpha value, the Rasch Model analysis provides two other crucial reliability measures about respondents (Person Measure) and questionnaire items (Item Measure).

However, the testing of the 313 respondents gave a Cronbach's Alpha value (KR-20) of 0.99. This value is considered highly satisfactory when compared to the maximum possible value of 1 (Sekaran, 2006). In addition to Cronbach’s Alpha computation, Winsteps calculated both the “Person Measure” and the “Item Measure”. The questionnaire instrument was represented by 313 persons (or respondents) and 64 fraud risk items (variables). The Rasch Model analysis outputs generated a “Person Measure” value of 0.96 and an “Item Measure” of 0.89. According to Bond & Fox (2007), values above 0.7 imply acceptability. Table 4.2 illustrates the results, indicating that both the person and item measures fall within the acceptable range, thereby allowing the study to proceed toward achieving its objectives.

Table 1. Fit statistics (Item = 64 and Person = 313).

Item Person Interaction		
	Item	Person
	Location	Location
Mean ¹	.00	-0.53
S.D.	0.27	1.3
Infit MNSQ ²	1.01	1.02

Infit ZSTD ²	-0.1		-0.5
Reliability Indices:			
Reliability	0.89	(Good)	0.96; and Cronbach Alpha was 0.99 (excellent)
Model error	0.09	(Excellent)	0.21 (Excellent)

To ensure robust quality control in the analysis conducted by the Rasch Measurement Model, an additional examination was carried out regarding the persons (respondents) involved. This analysis aimed to identify potential outliers or misfits. Outliers, in essence, refer to response data that could result in a skewed distribution and consequently bias the analysis (Bond & Fox, 2007).

To assess fit statistics, four criteria needed to be examined, namely: 1) Infit Mean Square threshold, 2) Outfit Mean Square, 3) Outfit Z standard, and 4) Point Measure Correlation. It is suggested that individuals who do not meet these criteria be considered for removal (Linacre, 2002). Based on the Rasch outputs for these four criteria, 61 participants' responses violated this quality control measure. Therefore, following the initial sampling of 313 respondents, 12 respondents were removed by the Winsteps software due to extreme values. Furthermore, an additional 61 respondents violated the above quality control measure and were excluded accordingly, resulting in a new sample size of 240 respondents' post-data clean-up.

Additionally, Principal Component Analysis (PCA) evaluates the percentage of variance that the instrument was able to measure as intended. The recommended cutoff point is 40% (Linacre, 2002), which was achieved in this study with a PCA of 45.7%. However, considering that 73 responses are expected to be deleted based on fit statistics recommendations as per stated above, it is anticipated that this PCA will show improvement due to the exclusion of person misfits.

Table 2. Fit statistics (Item = 64 and Person = 240).

Item Person Interaction			
	Item		Person
	Location		Location
Mean ¹	.00		-0.43
S.D.	.33		1.55
Infit MNSQ ²	1.01		1.00
Infit ZSTD ²	-0.1		-0.4
Reliability Indices:			
Reliability	.87	(Good)	.97; and Cronbach Alpha was 0.99 (excellent)
Model error	.011	(Excellent)	.22 (Excellent)

The results presented in Table (2) demonstrate that the quality control measures have significantly improved the testing in various aspects. Firstly, Cronbach's alpha remains at 0.99, indicating it is still within the acceptable range. Person reliability has shown a slight improvement, increasing from 0.94 to 0.97 after the data clean-up, despite the reduction in the number of individuals being measured from 313 to 240 persons. This new dataset provided 13,405 data points, calculated from 240 persons multiplied by 64

items after excluding missing responses. The item reliability saw a slight decrease from 0.89 to 0.87 after the post-clean-up of data. However, it’s important to note that 0.87 still falls within the acceptable range.

4.2 Hypotheses Test Results

After properly cleaning up the datasets, an analysis of the five hypotheses was carried out to achieve the study objectives. The hypothesis (H1) test was performed to determine which red flags are more likely and less likely to be utilized by auditors. Hypotheses (H2a to H2d) were assessed using Differential Item Functioning (DIF) analysis.

H1: Auditors are capable of using red flag indicators discriminately as mandated by auditing standards

This hypothesis intends to identify red flags that are more likely to be utilized by auditors based on their expertise and experience. However, the findings resulted in three classifications of auditors, each with varying likelihoods of using the red flags, as summarized in Table 3.

Table 3. Authors’ Competency Classification.

No	Auditors’ Classification	Probability of using red flags
1	Exemplar (excellent)	>50 % chances
2	Competent (appropriate)	50 % chances
3	Laggard (bad)	<50% chances

As shown in Table (3) above, the first group, known as “Exemplar”, indicates that these auditors are familiar with and likely to have used all of the red flags outlined in ISA 240. The second group, “Competent”, suggests that each red flag has a 50% probability of being used (endorsed) by the auditors. The determination of which red flags to use depends on the circumstances of the situation. This “Competent” group indicates that the red flags outlined in ISA 240 are appropriate in their line of work, and all red flags have an equal chance of being utilized by the competent auditors. Lastly, for the “Laggards” group, the results indicate that all of the red flags have less than a 50% chance of being used. It means that “Laggards” group finds it very challenging (low probability) to employ the red flags in their line of work. Likely, these auditors may not even be familiar with the red flags stated in ISA 240.

H2a: Male and female auditors use different red flags for sustainable fraud detection

To test this hypothesis, a Differential Item Functioning (DIF) analysis was conducted using Rasch Model analysis to satisfy two conditions: 1) t statistics greater than +/- 2, and 2) DIF measure exceeding 0.5 logits (Bond & Fox, 2007). The DIF analysis results regarding gender differences among auditors indicate that none of the items (red flags)

exceeded the DIF threshold. Hence, there were no significant differences in terms of gender among auditors in applying ISA 240 red flags.

H2b: Different types of auditors use different red flags for sustainable fraud detection

A DIF analysis was similarly performed to assess whether each type of auditor behaves differently from one another, and significant results were obtained from this testing. The results in Table (4) below indicated that internal auditors exhibit different behavior towards two red flags (O_2: management turnover and O_21: incomplete assets record keeping). The DIF measure and t statistics for management turnover were 0.59 and +2.21, respectively, while for incomplete assets record keeping, they were 0.82 and +3.10, respectively. Another item that showed a significant DIF measure was R_05, which pertains to the failure to promptly rectify internal control issues. The external auditors were found to be particularly sensitive when applying this red flag in their line of work, with a DIF measure of 0.53 logits and a +2.1 t statistic. As external auditors, they view the responsiveness of management in addressing internal control issues promptly as highly significant. Any delay or reluctance by management to address this issue would signal a red flag to these external auditors. However, for governmental auditors, no DIF was found.

Table 4. Items Estimates Differences in Logits of Auditors' Type.

Groups	DIF Contrast	Joint S.E.	t-value	P-value	Items Description
Internal Auditors	.59	.37	2.21	.0076	O_2: management turnover
	.82	.27	3.10	.0024	O_21: incomplete assets record keeping
External Auditors	.53	.44	2.10	.0013	R_05: failure to promptly rectify internal control issues

H2c: Auditors' selection of red flags for use varies based on their experience level

The next DIF testing aimed to determine whether experience or tenure of service may influence the likelihood of red flag usage among auditors (see Table 5). The auditors' demographic data of experience were categorized into four groups: (<3 years), (3 to 6 years), (7 to 10 years), and (>10 years).

Table 5. Items Estimates Differences in Logits of Red Flag Elements.

Groups	DIF Contrast	Joint S.E.	t-value	P-value	Items Description
<3 years	.59	.37	1.21	.216	(O_09): subsidiaries operating in tax haven jurisdictions
	.59	.37	1.45	.147	(O_12): the ability to dominate certain industries.
	.82	.27	1.10	.398	(O_20): international operations leading to different business

					environments and cross-cultural issues, screening for recruits.
	.71	.33	1.89	.144	(P_04): new accounting standards or legislative regulations
	.53	.17	1.71	.084	(P_05): marginal ability of the entity to meet exchange listing requirements or debt repayment
3 to 6 years	.68	.47	-1.10	.156	(P_07): personal guarantees by the Board of Directors for significant sums of debt of the firms
	.61	.29	1.83	.078	(P_10): rapid growth years
	.73	.44	2.10	.613	(P_11): the need to obtain further debts to stay competitive
	.60	.67	1.77	.311	(R_07): participation of non-management with no financial background in financial statement preparations
	.59	.39	1.29	.095	(R_09): practice by the management to meet analysts, creditors, and other third parties to achieve aggressive or unrealistic forecasts
7 to 10 years	.63	.24	-1.99	.072	(R_10): a practice used by management employing inappropriate means to minimize reported earnings for tax-motivated reasons
	.51	.33	-1.82	.089	(R_11): behavior indicating displeasure or dissatisfaction with the company or its treatment of the employee
>10 years	.36	.81	2.31	.099	(C_03): a person has a strong ego and great confidence that they will not be detected, or the person believes that they could easily talk themselves out of trouble if caught"

Results presented in Table (5) above indicated that auditors with varying lengths of service did not perceive red flag usage differently. Within the "Opportunity" dimension, three items were found to have DIF measures greater than 0.5 logits, but they were not statistically significant and did not exceed the range of +/- 2. These items, or red flags, pertained to subsidiaries operating in tax haven jurisdictions (O_09), the ability to dominate certain industries (O_12), international operations leading to different business environments, and cross-cultural issues (O_20).

In the second dimension of "Pressure", five red flags exceeded the 0.5 logits threshold, and one red flag exceeded the t-statistics. This means auditors with differing lengths of service perceived these five red flags differently from others, yet it was not statistically significant. These five red flags are: 1) new accounting standards or legislative regulations (P_04), 2) marginal ability of the entity to meet exchange listing

requirements or debt repayment (P_05), 3) personal guarantees by the Board of Directors for significant sums of debt of the firms (P_07), 4) rapid growth years (P_10), and 5) the need to obtain further debts to stay competitive (P_11). Additionally, another red flag was found to have a low DIF measure (-0.33 logits), although the t-statistics exceeded the range with a value of -2.43 logits. This red flag pertains to the decline of customers (P_12) as red flags used by auditors. However, the DIF measure did not meet the 0.5 threshold.

On the other hand, four red flags within the “Rationalization” dimension had DIF measures exceeding 0.5 but did not exceed the t-statistics range, but they were not statistically significant. Specifically, 1) participation of non-management with no financial background in financial statement preparations (R_07), 2) practice by the management to meet analysts, creditors, and other third parties to achieve aggressive or unrealistic forecasts (R_09), 3) A practice used by management employing inappropriate means to minimize reported earnings for tax-motivated reasons (R_10), and 4) behavior indicating displeasure or dissatisfaction with the company or its treatment of the employee. Also, three red flags were found to have DIF measures <0.5 but t-statistics exceeded the range of +/- 2. These three red flags are 1) excessive interest by management in maintaining or increasing the entity’s stock price or earnings trend, 2) disregard for the need for monitoring or reducing risks related to misappropriation of assets, and iii) changes in behavior or lifestyle that may indicate assets have been misappropriated.

Finally, one red flag in the “Capability” dimension refers to C_03, which is: “A person has a strong ego and great confidence that they will not be detected, or the person believes that they could easily talk themselves out of trouble if caught”. It had t-statistics of 2.31 logits, exceeding the threshold, but the DIF measure was merely 0.36 logits, showing that the response by auditors towards this item was not far off from the expectation.

In general, based on the above findings, no significant differences were found using DIF testing from the perspective of an auditor’s length of service.

H2d: Auditors with higher levels of education use more red flags for sustainable fraud detection compared to auditors with basic education

This hypothesis examines whether there exists any difference in the usage of red flag indicators among auditors with different levels of education. As shown in Table (6) below, the DIF testing revealed that auditors with postgraduate education exhibited different behavior from the rest, specifically in the utilization of three red flags in the “Opportunity” dimension. The DIF measures and t-statistics for items: O_19, O_20, and O_28 were 1.79 and 2.9 logits, 1.9 and 2.13 logits, and 0.53 and 2.04 logits, respectively. These items pertain to red flag indicators for oversight on asset management (O_19), job screening for staff that manage assets (O_20), and inadequate access controls over automated records, including controls over and review of computer systems event logs (O_28). This indicates that auditors with postgraduate education used these three red flags more frequently than auditors without postgraduate education. However, auditors with professional accounting qualifications showed no discernible preference for any particular red flag over others.

Table 6. Items Estimates Differences in Logits of Auditors' Level of Education.

Groups	DIF Contrast	Joint S.E.	t-value	P-value	Items Description
Postgraduate education	1.79	.88	2.9	.012	(O_19): red flag indicators for oversight on asset management
	1.9	.87	2.13	.027	(O_20): job screening for staff that manage assets
	0.53	.92	2.04	.016	(O_28): inadequate access controls over automated records, including controls over and review of computer systems event logs

5 Discussion and Conclusion

The objective of this study is to assess how effectively auditors comprehend and utilize the indicators outlined in ISA 240 while auditing an organization's financial statements in Malaysia. The study revealed that ISA 240 indicators were not fully perceived by auditors, particularly those who were less competent including internal and external auditors. Despite the fact that ISA 240 provides comprehensive guidelines, it is apparent that this alone is insufficient, and certain auditors discovered it difficult to endorse or use red flags as indicators of fraud detection. This result is inconsistent with the evidence found in the previous studies. For instance, Moyes et al. (2013) studies the SAS 99 red flags application in Malaysia. Their results indicated that the internal and external auditors perceive each of the SAS 99 red flags in detecting fraudulent financial reporting activities. Moreover, Abdullatif (2013) revealed a significant importance of modifying audit programs in the presence of each ISA 240 fraud risk factor among Jordanian auditors. This was because of the perceived importance level found of the fraud risk factor itself by auditors. Al-Dhubaibi and Sharaf-Addin (2022), in their research, found that the usage of ISA's 240 red flags by internal and external auditors in Saudi Arabia is positively linked to their perception of fraud prevalence. However, the inconsistency of the study findings compared with the evidence found by the previous studies could have significant consequences for auditors' ability to detect and prevent fraud as specified in ISA 240. Furthermore, there is a competence gap among auditors that needs to be addressed.

In addition, the study's findings did show some efforts to bridge the competency gap through auditor training, yet it is still not deemed sufficient. These training records indicate that the majority of auditors attend more basic training, if any at all, with sessions mostly conducted in-house or by the Malaysian Institute of Accountants (MIA). Similarly, while Gullkvist and Jokipii (2013) observed the perceived importance of ISA 240 red flags but different from professional standards, this may emphasize the need for training sessions. Perhaps future research could be conducted to ascertain whether such training is pursued merely to accumulate Continuing Professional Development (CPD) hours. Consequently, such training may not significantly enhance the auditors' competency levels. Attending training sessions conducted by specialists specifically for fraud detection remains infrequent. This

presents a potential avenue for auditors to explore to elevate their competency levels. In essence, a holistic approach is necessary, combining auditors' existing knowledge, experience, and skills for this competency development to be practical. Consequently, fraud detection should be executed not only in appearance (*de jure*) but in fact (*de facto*) as well (Cannella et al., 2023; Parker & Guthrie, 1991). Furthermore, the audit firm itself must bear the responsibility of assisting auditors in capacity building, enabling them to enhance their competency. This competency should include refresher courses continuously, ensuring that auditors stay abreast of the latest scams perpetrated by fraudsters. In connection with this, the competency also needs to be continuously replicable, serving as an indication and assurance that auditors have consistently achieved the desired level of proficiency. Ultimately, auditors' competency should be assessable in terms of their performance against the pre-defined rubric mentioned earlier.

While the findings of this study represent pioneering work in this area of interest in Malaysia, the study makes a significant contribution to the existing literature (e.g., Al-Dhubaibi & Sharaf-Addin, 2022; Halbouni, 2015; Moyes, 2011; Moyes et al., 2013; Mangala and Kumari, 2017). This through providing supportive evidence that sheds light on the differences observed among auditors in terms of ISA 240 indicators usage based on various demographic elements such as gender, type of auditors, experience, and educational levels. Furthermore, the Rasch Model analysis effectively integrated both quantitative and qualitative aspects of the results. The identification of auditors' competency levels is expected to contribute significantly to the development of future training mechanisms and relevant content for designing professional training modules, addressing the existing competency gap among auditors. On the other hand, the sampling in this study was limited to auditors in Klang Valley, Malaysia. For future research, respondents should be selected from a broader geographical area within the country to ensure that the sampling is more representative of the population, leading to more meaningful conclusions. Lastly, the rate of missing responses is quite substantial at 12.7%. For future research, consideration may be given to shortening the instruments to enhance efficiency and increase the likelihood of questionnaire responses.

Acknowledgments. The authors would like to acknowledge Universiti Teknologi PETRONAS (UTP) Short Term Internal Research Funding (STIRF) for funding this research under Cost Center: (015LA0-058), which was an important support to conduct this research

Disclosure of Interests. The authors state that none of the work disclosed in this publication may have been influenced by any known conflicting financial interests or personal ties.

References

1. Abdolmohammadi, M., & Wright, A.: An examination of the effects of experience and task complexity on audit judgments. *Accounting Review* 1-13 (1987). <https://www.jstor.org/stable/248042>
2. Abdullatif, M.: Fraud risk factors and audit programme modifications: Evidence from Jordan. *Australasian Accounting, Business and Finance Journal* 7(1), 59–77 (2013). <https://doi.org/10.14453/aabfj.v7i1.5>
3. Adams, J.: Administrative ethics. In *Public Administration: An Introduction*, p. 350 (2011).

4. Al-Dhubaibi, A. A. S., & Sharaf-Addin, H. H. H.: An analysis of external and internal auditors' use of ISA 240 red flags: The impact of auditors' estimation of fraud pervasiveness. *Cogent Business & Management* 9(1), 1-21 (2022). <https://doi.org/10.1080/23311975.2022.2118209>
5. Alexander, D., & Jermakowicz, E.: A true and fair view of the principles/rules debate. *Abacus* 42(2), 132-164 (2006). <https://doi.org/10.1111/j.1468-4497.2006.00195.x>
6. Ali Shah, S., Butt, S., & Tariq, Y.: Use or abuse of creative accounting techniques. *International Journal of Trade, Economics and Finance* 2(6), (2011). <https://ssrn.com/abstract=2009823>
7. Alleyne, P., & Howard, M.: An exploratory study of auditors' responsibility for fraud detection in Barbados. *Managerial Auditing Journal* 20(3), 284-303 (2005). <https://doi.org/10.1108/02686900510585618>
8. Anderson, B., Maletta, M., & Wright, A.: Perceptions of auditor responsibility: Views of the judiciary and the profession. *International Journal of Auditing* 2(3), 215-232 (1998). <https://doi.org/10.1111/1099-1123.00041>
9. Apostolou, B. A., Hassell, J. M., Webber, S. A., & Sumners, G. E.: The relative importance of management fraud risk factors. *Behavioral Research in Accounting* 13(1), 1-24 (2001). <https://doi.org/10.2308/bria.2001.13.1.1>
10. Arrington, C. E., Hillison, W. A., & Williams, P. F.: The psychology of expectations gaps: Why is there so much dispute about auditor responsibility? *Accounting and Business Research* 13(52), 243-250 (1983). <https://doi.org/10.1080/00014788.1983.9729761>
11. Baldwin, F.: Racketeer Influenced and Corrupt Organizations Act (RICO) and the mafia must now welcome organizational crime. *Journal of Financial Crime* 17(4), 404-416 (2010). <https://doi.org/10.1108/13590791011082760>
12. BBC.: Starbucks agrees to pay more corporation tax. BBC Online (2012, December 6). <http://www.bbc.co.uk/news/business-20624857>
13. Blickle, G., Meurs, J. A., Wihler, A., Ewen, C., Plies, A., & Günther, S.: The interactive effects of conscientiousness, openness to experience, and political skill on job performance in complex jobs: The importance of context. *Journal of Organizational Behavior* 34(8), 1145-1164 (2012). <https://doi.org/10.1002/job.1843>
14. Bolt-Lee, C., & Foster, S.: The core competency framework: A new element in the continuing call for accounting education change in the United States. *Accounting Education* 12(1), 33-47 (2003). <https://doi.org/10.1080/0963928031000074486>
15. Branson, D.: Enron-When all systems fail: Creative destruction or roadmap to corporate governance reform? *Villanova Law Review* 48, 989 (2003).
16. Brantingham, P., & Brantingham, P.: Environment, routine, and situation: Toward a pattern theory of crime. In *Advances in Criminological Theory* (Vol. 5, pp. 259-294), (1993).
17. Brazel, J. F., Carpenter, T. D., & Jenkins, J. G.: Auditors' use of brainstorming in the consideration of fraud: Reports from the field. *The Accounting Review* 85(4), 1273-1301 (2010). <https://doi.org/10.2308/accr.2010.85.4.1273>
18. Breesch, D., & Branson, J.: The effects of auditor gender on audit quality. *The IUP Journal of Accounting Research and Audit Practices* 8(3-4), 78-107 (1991).
19. Bröcheler, V., Maijor, S., & Van Witteloostuijn, A.: Auditor human capital and audit firm survival: The Dutch audit industry in 1930-1992. *Accounting, Organizations and Society* 29(7), 627-646 (2004). <https://doi.org/10.1016/j.aos.2003.10.008>
20. Brouwers, M. C., Graham, I. D., Hanna, S. E., Cameron, D. A., & Browman, G. P.: Clinicians' assessments of practice guidelines in oncology: The CAPGO survey. *International Journal of Technology Assessment in Health Care* 20(4), 421-426 (2004). <https://doi.org/10.1017/S0266462304001308>
21. Cannella, R., Vernuccio, F., Klontzas, M. E., Ponsiglione, A., Petrash, E., Ugga, L., Pinto dos Santos, D., & Cuocolo, R.: Systematic review with radiomics quality score of

- cholangiocarcinoma: An EuSoMII Radiomics Auditing Group Initiative. *Insights into Imaging* 14(1), 1884-1894 (2023). <https://doi.org/10.1186/s13244-023-01365-1>
22. Carpenter, T. D., Reimers, J. L., & Fretwell, P. Z.: Internal auditors' fraud judgments: The benefits of brainstorming in groups. *Auditing: A Journal of Practice & Theory* 30(3), 211-224 (2011). <https://doi.org/10.2308/ajpt-10054>
 23. Chong, G.: Does brainstorming help detect and deter fraud? SSRN (2011). <https://doi.org/10.2139/ssrn.1742702>
 24. Chong, G.: Detecting fraud: What are auditors' responsibilities? *The Journal of Corporate Accounting & Finance* 24(2), 47-53 (2013). <https://doi.org/10.1002/jcaf.21829>
 25. Choo, F., & Tan, K.: An "American dream" theory of corporate executive fraud. *Accounting Forum* 31(2), 203-215 (2007). <https://doi.org/10.1016/j.acf.2006.12.004>
 26. Chung, J., & Monroe, G. S.: A research note on the effects of gender and task complexity on an audit judgment. *Behavioral Research in Accounting* 13(1), 111-125 (2001). <https://doi.org/10.2308/bria.2001.13.1.111>
 27. Covey, S. R.: 7 habits of highly effective people. Simon & Schuster (1990).
 28. Dechow, P. M., & Skinner, D. J.: Earnings management: Reconciling the views of accounting academics, practitioners, and regulators. *Accounting Horizons* 14(2), 235-250 (2000). <https://doi.org/10.2308/acch.2000.14.2.235>
 29. Dellaportas, S.: Conversations with inmate accountants: Motivation, opportunity and the fraud triangle. Paper presented at the Accounting Forum (2012).
 30. Gold, A., Hunton, J. E., & Gomaa, M. I.: The impact of client and auditor gender on auditors' judgments. *Accounting Horizons* 23(1), 1-18 (2009). <https://doi.org/10.2308/acch.2009.23.1.1>
 31. Gullkvist, B., & Jokipii, A.: Perceived importance of red flags across fraud types. *Critical Perspectives on Accounting* 24(1), 44-61 (2013). <https://doi.org/10.1016/j.cpa.2012.01.004>
 32. Hackenbrack, K.: The effect of experience with different sized clients on auditor evaluations of fraudulent financial reporting indicators. *Auditing: A Journal of Practice & Theory* 12(1), 99 (1993).
 33. Halbouni, S. S.: The role of auditors in preventing, detecting, and reporting fraud: The case of the United Arab Emirates (UAE). *International Journal of Auditing* 19(2), 117-130 (2015). <https://doi.org/10.1111/ijau.12040>
 34. Hashim, H. A., Salleh, Z., Mohamad, N. R., Anuar, F. S., & Ali, M. M.: Auditors' perceptions towards their role in assessing, preventing, and detecting business fraud. *International Journal of Innovation, Creativity and Change* 5(2), 847-862 (2019).
 35. Hines, R. D.: The usefulness of annual reports: The anomaly between the efficient markets hypothesis and shareholder surveys. *Accounting and Business Research* 12(48), 296-309 (1982). <https://doi.org/10.1080/00014788.1982.9728822>
 36. Hodge, F., & Pronk, M.: The impact of expertise and investment familiarity on investors' use of online financial report information. *Journal of Accounting, Auditing & Finance* 21(3), 267-292 (2006). <https://doi.org/10.1177/0148558X0602100304>
 37. Huang, S. Y., Lin, C. C., Chiu, A. A., & Yen, D. C.: Fraud detection using fraud triangle risk factors. *Information Systems Frontiers* 19(6), 1343-1356 (2017). <https://doi.org/10.1007/s10796-016-9647-9>
 38. Humphrey, C., Loft, A., & Woods, M.: The global audit profession and the international financial architecture: Understanding regulatory relationships at a time of financial crisis. *Accounting, Organizations and Society* 34(6), 810-825 (2009). <https://doi.org/10.1016/j.aos.2009.06.003>
 39. Ismail, H., & Mustapha, M.: Auditing the auditors: The audit oversight board and regulating audit quality in Malaysia. *Journal of Modern Accounting and Auditing* 11(3), 138-142 (2015). <https://doi.org/10.17265/1548-6583/2015.03.002>

40. Ismail, N., & Weetman, P.: Forecast accuracy in initial public offerings and the impact of external constraints relative to managerial choice: A research note. *Accounting & Finance* 47(3), 513-525 (2007). <https://doi.org/10.1111/j.1467-629X.2007.00217.x>
41. Ismail, N., & Weetman, P.: Regulatory profit targets and earnings management in initial public offerings: The case of Malaysia. *Journal of Financial Reporting and Accounting* 6(1), 91-115 (2008). <https://doi.org/10.1108/19852510880000637>
42. Ittonen, K., & Peni, E.: Auditor's gender and audit fees. *International Journal of Auditing* 16(1), 1-18 (2012). <https://doi.org/10.1111/j.1099-1123.2011.00438.x>
43. Jeppesen, K. K.: The role of auditing in the fight against corruption. *The British Accounting Review* 51(5), 100798 (2019). <https://doi.org/10.1016/j.bar.2018.06.001>
44. Kassem, R.: Detecting asset misappropriation: A framework for external auditors. *International Journal of Accounting, Auditing and Performance Evaluation* 10(1), 1–42 (2014). <https://doi.org/10.1504/IJAAPE.2014.059181>
45. Kim, J.: A forensic study of Daewoo's corporate governance: Does responsibility solely lie with the Chaebol and Korea? *Northwestern Journal of International Law and Business* 28(3) (2005). <https://ssrn.com/abstract=760064>
46. Koh, K., Matsumoto, D. A., & Rajgopal, S.: Meeting or beating analyst expectations in the post-scandals world: Changes in stock market rewards and managerial actions. *Contemporary Accounting Research* 25(4), 1067-1098 (2008). <https://doi.org/10.1506/car.25.4.5>
47. Kranacher, M. J., Riley, R., & Wells, J. T.: *Forensic Accounting and Fraud Examination*: Wiley (2010).
48. Kunal, K.: Satyam fiasco: A failure of corporate governance. Available at SSRN (2011). <https://dx.doi.org/10.2139/ssrn.1969172>
49. Lee, T. A., & Tweedie, D. P.: Accounting information: An investigation of private shareholder usage. *Accounting and Business Research* 5(20), 280-291 (1975). <https://doi.org/10.1080/00014788.1975.9728653>
50. Li, W., & Shi, D.: Audit quality, audit fees and gender. *Proceeding of 2012 International Conference on Information Management, Innovation Management and Industrial Engineering, ICIII* 2012, 3(2003), 340–343 (2012). <https://doi.org/10.1109/iciii.2012.6339987>
51. Linacre, J. M.: What do infit and outfit, mean-square, and standardized mean? *Rasch Measurement Transactions* 16(2), 878 (2002).
52. Loft, A.: Accountancy and the gendered division of labor: A review essay. *Accounting, Organizations and Society* 17(3), 367-378 (1992). [https://doi.org/10.1016/0361-3682\(92\)90029-R](https://doi.org/10.1016/0361-3682(92)90029-R)
53. Loomis, S. C.: The Double Irish Sandwich: Reforming overseas tax havens. *St. Mary's LJ* 43, 825-855 (2012).
54. Lorenzo, C., Garrafa, V., Solbakk, J. H., & Vidal, S.: Hidden risks associated with clinical trials in developing countries. *Journal of Medical Ethics* 36(2), 111-115 (2010). <http://dx.doi.org/10.1136/jme.2009.031708>
55. Macey, J. R.: Efficient capital markets, corporate disclosure, and Enron. *Cornell L. Rev.* 89, 394 (2003).
56. Majid, A., Gul, F. A., & Tsui, J. S. L.: An analysis of Hong Kong auditors' perceptions of the importance of selected red flag factors in risk assessment. *Journal of Business Ethics* 32(3), 263–274 (2001). <https://doi.org/10.1023/A:1010763420754>
57. Mangala, D., & Kumari, P.: Auditors' perceptions of the effectiveness of fraud prevention and detection methods. *Indian Journal of Corporate Governance* 10(2), 118-142 (2017). <https://doi.org/10.1177/0974686217738683>

58. McEnroe, J. E., & Martens, S. C.: Auditors' and investors' perceptions of the "expectation gap." *Accounting Horizons* 15(4), 345-358 (2001). <https://doi.org/10.2308/acch.2001.15.4.345>
59. McKee, T. E.: Increase your fraud auditing effectiveness by being unpredictable! *Managerial Auditing Journal* 21(2), 224-231 (2006). <https://doi.org/10.1108/02686900610639338>
60. McVay, S., Nagar, V., & Tang, V. W.: Trading incentives to meet the analyst forecast. *Review of Accounting Studies* 11(4), 575-598 (2006). <https://doi.org/10.1007/s11142-006-9017-9>
61. Moyes, G. D., & Hasan, I.: An empirical analysis of fraud detection likelihood. *Managerial Auditing Journal* 11(3), 41-46 (1996). <https://doi.org/10.1108/02686909610115231>
62. Moyes, G. D., Din, H. F. M., & Omar, N. H.: The effectiveness of the auditing standards to detect fraudulent financial reporting activities in financial statement audits in Malaysia. *International Business & Economics Research Journal* 8(9), 1-18 (2009). <https://doi.org/10.19030/iber.v8i9.3163>
63. Moyes, G. D., Young, R., & Din, H. F. M.: Malaysian internal and external auditor perceptions of the effectiveness of red flags for detecting fraud. *International Journal of Auditing Technology* 1(1), 91 (2013). <https://doi.org/10.1504/ijaudit.2013.052263>
64. Nelson, I. T., Vondryk, V. P., Quirin, J. J., & Allen, R. D.: No, the sky is not falling: Evidence of accounting student characteristics at FSA schools, 1995-2000. *Issues in Accounting Education* 17(3), 269-287 (2002). <https://doi.org/10.2308/iace.2002.17.3.26933>
65. Niskanen, J., Karjalainen, J., & Niskanen, M.: Auditor gender and corporate earnings management behavior in private Finnish firms. *Managerial Auditing Journal* 26(9), 778-793 (2011) <https://doi.org/10.1108/02686901111171448>
66. O'Donnell, E., & Johnson, E. N.: The effects of auditor gender and task complexity on information processing efficiency. *International Journal of Auditing* 5(2), 91-105 (2001) <https://doi.org/10.1111/j.1099-1123.2001.00328.x>
67. Parker, L. D., & Guthrie, J.: Performance Auditing: the Jurisdiction of the Australian Auditor General — De Jure or De Facto? *Financial Accountability and Management* 7(2), 107-116 (1991) <https://doi.org/10.1111/j.1468-0408.1991.tb00343.x>
68. Petraşcu, D., & Tîeanu, A.: The Role of Internal Audit in Fraud Prevention and Detection. *Procedia Economics and Finance* 16, 489-497 (2014) [https://doi.org/10.1016/s2212-5671\(14\)00829-6](https://doi.org/10.1016/s2212-5671(14)00829-6)
69. Schilit, H.: *Financial shenanigans*. Tata McGraw-Hill Education (2010)
70. Sekaran, U.: *Research methods for business: A skill-building approach*. John Wiley & Sons (2006)
71. Simborg, D. W.: There is no neutral position on fraud! *Journal of the American Medical Informatics Association* 18(5), 675-677 (2011) <https://doi.org/10.1136/amiajnl-2011-000206>
72. Smith, M., Omar, N. H., Sayd Idris, S. I. Z., & Baharuddin, I.: Auditors' perception of fraud risk indicators. Malaysian evidence. *Managerial Auditing Journal* 20(1), 73-85 (2005) <https://doi.org/10.1108/02686900510570713>
73. Stanley, T. J., & Danko, W. D.: *The Millionaire Next Door*. Simon & Schuster (2000)
74. Ting, M. M.: Whistleblowing. *American Political Science Review* 102(02), 249-267 (2008) <https://doi.org/10.1017/S0003055408080192>
75. Wright, B. D., & Stone, M. H.: *Making measures*. Phaneron Press (2004)
76. Yucel, E.: Effectiveness of Red Flags in Detecting Fraudulent Financial Reporting: An Application In Turkey. *The Journal of Accounting and Finance* 60(Oct.), 139-158 (2013)

77. Zanzig, J. S., & Flesher, D. L.: Internal Auditors Speak Out on Controlling Employee Fraud. *Research on Professional Responsibility and Ethics in Accounting* 15, 225-250 (2011) [https://doi.org/10.1108/S1574-0765\(2011\)0000015011](https://doi.org/10.1108/S1574-0765(2011)0000015011)

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

