

Toward Understanding Ability to Detect Fraud among Internal Auditors: A Proposed Framework

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ABSTRACT

This paper proposes a framework that integrates individual and situational factors to examine the ability to detect fraud among internal auditors. Specifically, professional scepticism, organisational ethical climate and the adoption of data analytics tools are positioned as predictors of the ability to detect fraud among internal auditors. Based on social cognitive theory, moral disengagement is introduced as a moderating variable that may disrupt the relationship between professional scepticism and auditors' ability to detect fraud. Collectively, the framework contributes to auditing literature by advancing a multidimensional understanding of the ability to detect fraud among internal auditors. Future research could employ a mixed-method approach to empirically validate the framework, with structural equation modelling (SEM) serving as an appropriate tool to test the hypothesised relationships. The proposed framework is anticipated to have theoretical and practical implications that will eventually improve audit quality and public trust, particularly in the context of fraud detection.

Keywords: professional scepticism; organisational ethical climate; data analytics; moral disengagement; fraud detection

INTRODUCTION

Nowadays, fraud is a common and costly challenge faced by organisations globally (Junaidi et al., 2024). The corporate scandals of WorldCom in the United States of America, Barings Bank and Equitable Life in the United Kingdom, Satyam in India and Parmalat in Italy are among a few examples that have shocked the business world (Al-Dhubaibi, 2020). As a developing country, Malaysia is not immune to financial reporting scandals, which pose significant threats to corporate integrity and public trust. For instance, the 1 Malaysia Development Berhad (1MDB) scandal has drawn global attention to its scale and implications. This case illustrates how financial fraud and erroneous investing decisions have negatively impacted the nation (Ismail Khan & Muhammad Hapiz, 2022). The scandal not only highlighted weaknesses in corporate governance but also exposed the vulnerability of financial oversight mechanisms in Malaysia.

In response to growing concerns about the widespread fraud issues in Malaysia, the Price Waterhouse Coopers (PwC) 2020 report emphasised the critical need for stronger anti-fraud frameworks, internal controls and ethical corporate culture. The report revealed that 69% of Malaysian organisations had experienced fraud cases in the past two years (PwC, 2020). In a similar vein, it was claimed that despite accounting for only 5% of occupational fraud cases, financial statement fraud leads to the highest financial losses, with a median loss of \$766,000 per incident (ACFE, 2024). As a result, such frauds impose a significant financial burden on affected organisations.

As fraud issues intensify, they present significant and escalating threats to auditors. If left unattended, fraud issues could tarnish the credibility of financial reporting and compromise the integrity of the corporate governance systems (Jamieson et al., 2019). The reliability of financial statements is very important because it can erode trust and distort the decision-making process of various parties, such as investors, shareholders, regulators, and the public (Al-Dhubaibi, 2020). Although effective auditing and fraud prevention have been enforced to align with government policies and corporate governance, auditors' failure to detect fraud is still widely believed to be too common (Herron & Cornell, 2021). As a result, the public commonly perceived that the root cause of failure to detect fraud was due to the incompetence issue among auditors (Austin, 2023).

To address these concerning situations, a growing body of research in the field of fraud mitigation indicates the collective effort to find ways to curb this issue and control fraudulent activities in organisations (Abdul Aziz & Othman, 2021). For example, research related to the characteristics of auditors (Khaksar et al., 2022; Syed Mustafa Nazri et al., 2023), methods used by auditors in performing their jobs and preventive measures (Abdul Aziz & Othman, 2021; Tang & Karim, 2019) has previously been explored.

Motivated by the previous studies, this paper proposes a framework for examining factors that influence auditors' ability to detect fraud. The proposed framework intends to extend the literature by investigating the individual and situational variables as well as using samples from non-Western contexts. Also, it aims to examine moral disengagement as a moderating variable, which is predicted to influence the strength or direction of the anticipated relationship between the individual variable and the ability to detect fraud among internal auditors.

This paper offers at least two key contributions to the field of fraud detection. First, the proposed framework integrates attribution and social cognitive theories into a unified model. As a result, individual cognitive variables (professional scepticism and moral disengagement), situational variables (organisational ethical climate and adoption of data analytics tools) are simultaneously incorporated, so that a more rigorous investigation into fraud detection ability among auditors could be carried out. This effort not only reflects concern over auditors' perceived failure to detect fraud (Herron & Cornell, 2021) but also extends the literature by testing the variables within the Malaysian auditing context, which remains underexplored (Hakami et al., 2020; Kassem & Turksen, 2021). Secondly, the proposed framework holds strong practical relevance. If it is empirically tested in future research, the findings may guide audit firms and regulators in identifying essential competencies, designing targeted training programs, and formulating policies that strengthen auditors' capacity to fulfil their fraud-related responsibilities effectively.

This paper proceeds in the following manner. It begins with a brief explanation of attribution and social cognitive theories, which together act as the underpinning theories. Drawing from both theories, the proposed framework is illustrated, followed by a discussion on hypotheses development for each of the predicted relationships. Finally, a short conclusion describing the ongoing process of validating the proposed framework and suggestions for future research ends the paper.

THE UNDERPINNING THEORIES

Attribution Theory

Heider (1958) explains that individual actions are the result of the interplay between internal and external factors and this is known as attribution theory. Personal characteristics such as character, attitude, expertise, and effort are categorised as internal factors. Conversely, situational factors like pressures and challenges faced by individuals are classified as external factors (Wahidahwati & Asyik, 2022). In general, it is very important to understand the influence of both factors on individuals because the interaction of both factors will impact behaviour. As such, in the auditing field, the interaction between the internal and external attributions may influence auditors' approach to audit procedures, particularly on making judgments when assessing audit evidence.

For instance, the personality and cognitive ability of internal auditors could have influenced their way of interpreting irregularities they faced when performing their audit work. Some may decide the irregularities are the result of deliberate fraudulent actions, while others may treat them as unintentional errors. This could happen because internal auditors who exercise professional scepticism may have a higher tendency to ascribe suspicious findings as intentional misconduct compared to their counterparts with low professional scepticism. This scenario helps illustrate the tendency to have different fraud detection abilities among internal auditors. As argued by Arifuddin et al. (2022), individuals' personality and cognitive ability impact their behaviour and judgment, especially when faced with uncertainties.

Utilising attribution theory, Chen et al (2023) investigate the influence of professional scepticism and personality traits on audit quality. Interestingly, findings show that professional scepticism moderates the relationship between the personality trait of extroversion and audit quality. Earlier, Wahidahwati and Asyik (2022) examined auditors' experience, ethics, professional scepticism and personality types with fraud detection. All the characteristics investigated show a positive and significant relationship with auditors' fraud detection ability and hence support attribution theory.

Realising that attribution is not solely influenced by auditors' characteristics, the proposed framework pushes the current frontier to include situational variables, represented by organisational ethical climate and adoption of data analytics tools. Following previous studies, professional scepticism represents the internal factors, while organisational ethical climate and adoption of data analytics tools act as a proxy for external factors. Thus, combining both internal and external attributions in one framework will shed light on the influence of auditors' disposition and their working environment on fraud detection ability.

Social Cognitive Theory

Social Cognitive Theory (Bandura, 1977, 1986) emphasises the role of cognitive processes, self-regulation and the interaction between individuals and their environment. The theory posits that, individual not only reacts to their surroundings but also regulates their actions through cognitive mechanisms (Pajares, 2002). Meaning that, internal auditors' ability to detect fraud is not entirely determined by their working environment, but also depends on their ability to process information, exercise self-control and apply moral reasoning in complex situations.

According to Bandura (1986), human behaviour is believed to result from the interaction between three factors: behaviour, personal and cognitive factors, as well as the environment. The interaction is known as triadic reciprocal determinism. The three factors influence each other continuously, but the strength of influence may vary depending on the situation (Bandura, 1986). As such, individuals may respond differently to the same situations because their cognitive processes vary (Chen et al., 2023; Saidon, 2012).

Integrating social cognitive theory into the proposed framework adds novelty by acknowledging that auditors' ability to detect fraud may also be influenced by their psychological mechanisms, such as moral disengagement. Moral disengagement refers to a cognitive process whereby individuals justify their unethical conduct by disengaging their behaviour from their moral standards without experiencing self-condemnation (Bandura, 1989). This could be done through mechanisms such as moral justification, displacement of responsibility or minimising the consequences of their unethical conduct (Moore, 2008).

In the proposed framework, the inclusion of moral disengagement will help explain how auditors' internal self-regulation and moral reasoning influence the ability to detect fraud. Furthermore, moral disengagement is conceptualised as a moderating variable because it has the potential to interrupt the interaction between auditors' professional scepticism and fraud detection ability. In other words, having a high level of moral disengagement may potentially lead auditors to rationalise red flags, even though they exhibit strong professional scepticism. On the other hand, auditors with a low level of moral disengagement may have a better cognitive vigilance and consequently strengthen the relationship between professional scepticism and the ability to detect fraud.

THE PROPOSED FRAMEWORK AND HYPOTHESES DEVELOPMENT

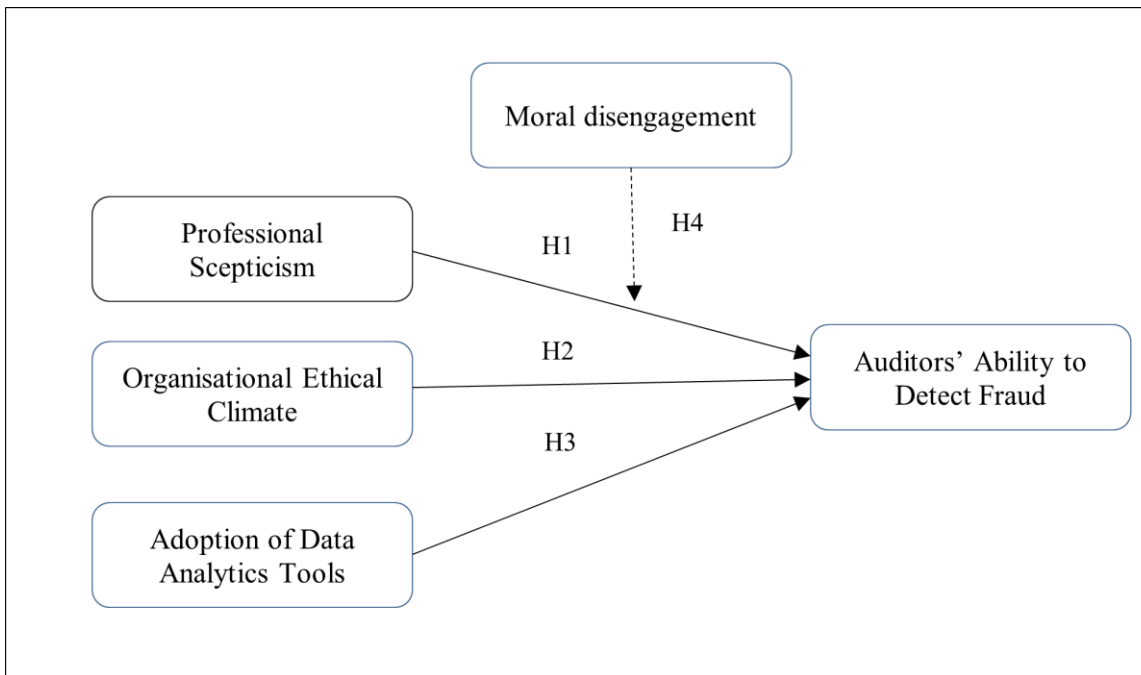


Figure 1: The Proposed Framework

Figure 1 illustrates the proposed framework based on social cognitive and attribution theories. Based on attribution theory, professional scepticism represents the internal factor reflecting auditors' judgment while assessing evidence when performing their audit work. On the other hand, organisational ethical climate is a proxy for external factors representing the cultural expectations within audit environments. In addition, the adoption of data analytics tools also plays as an external factor, more specifically, to examine how the use of technology influences auditors' ability to identify anomalies that flag the possibilities of fraud occurrences. Collectively, these three selected variables are hypothesised to influence auditors' ability to detect fraud. Building on social cognitive theory, moral disengagement is included in the framework as a moderating variable. In this context, it represents auditors' cognitive mechanisms that may disrupt the relationship between professional scepticism and their ability to detect fraud.

Professional Scepticism

Professional scepticism refers to the act of critically assessing audit evidence by questioning, verifying and challenging clients' assertions (Witjaksono & Yudatama, 2021). Exercising scepticism may enable auditors to detect fraudulent practices that management attempts to conceal (Ghani et al., 2022). Failure to exercise sufficient professional scepticism has been claimed as a factor that leads to audit failures. In 2008, the Public Company Accounting Oversight Board (PCAOB) reported that most fraud cases occurred because auditors did not perform sufficient professional scepticism (PCAOB, 2008). As mentioned by its chairman, "without professional scepticism, the audit cannot serve that essential function of providing a meaningful check on financial statements prepared by company management" (Adikaram & Higgs, 2024, p. 73). Consistently, Johari et al. (2022) emphasised that insufficient professional scepticism is a critical factor underlying audit failures.

According to Hurtt (2010), questioning mind, suspension of judgement, search for knowledge, interpersonal understanding, self-esteem, and autonomy are the six interrelated traits of professional scepticism. A questioning mind means auditors have a critical mindset while assessing the data and audit evidence acquired throughout the audit process. Having a suspension of judgment and search for knowledge attitude, in turn, means auditors tend to withhold judgment until sufficient evidence is obtained from various sources with the aim to strengthen the reliability of audit findings (Alawsi et al., 2023; Rahim et al., 2023).

Having a strong interpersonal understanding trait enables auditors to realise that, in certain circumstances, individuals may have tendencies to misrepresent information. Therefore, auditors will take extra care when doing their audit work and not easily accept evidence at face value. As previously claimed, interpersonal understanding stimulates auditors' ability to discover clients' motives and identify misrepresentation (Hurt, 2010; Alawsi et al., 2023). Another important element is self-esteem. Having a high level of self-esteem may protect auditors from feeling insecure and threatened by clients' pressures; thus, auditors are more likely to stand firm with their professional judgments (Alawsi et al., 2023). As for autonomy, this trait refers to the ability to make independent judgments based on audit evidence. Autonomous auditors will not solely rely on management assertions but will critically assess the assertions based on audit evidence (Syed Mustafa Nazri et al., 2023). Taken together, these six interrelated traits demonstrate that professional scepticism is a multidimensional construct that plays a pivotal role in enhancing auditors' ability to detect fraud. Accordingly, this framework hypothesises that higher levels of professional scepticism will enhance internal auditors' ability to detect fraud.

Hypothesis 1: Professional scepticism is positively associated with internal auditors' ability to detect fraud.

Organisational Ethical Climate

Victor and Cullen (1988, p. 101) define ethical climate as "prevailing perceptions of typical organisational activities and procedures with ethical meaning". In other words, it refers to the shared norms, values, and practices that shape employees' ethical behaviour and influence their decision-making. Different organisations may have different levels of ethical climate (Victor & Cullen, 1988). Nevertheless, organisations with a strong positive ethical climate will promote an ethical work culture that discourages unethical conduct (Sajari, Haron, & Ismail, 2019).

Empirically, organisational ethical climate has proven to significantly impact work behaviour. In the auditing context, ethical climate has significantly affected the perceived workplace bullying in audit firms (Liu, 2020). Likewise, a strong ethical climate is claimed to help mitigate unethical practices (Sajari, Haron, & Ismail, 2019). Therefore, auditors who work in an ethically supportive environment may be cautious about performing unethical conduct and be more vigilant in performing their audit work. They could perform their work without fear of being intimidated. Also, previously, organisational ethical climate was found to be significantly related to the effectiveness of the internal audit activities (Casagan & Tan, 2024). Casagan and Tan (2024) also highlight the importance of having ethical leadership. When the management provides a clear ethical guideline that allows auditors to perform their work independently and objectively, the internal audit function will be more effective and eventually, audit quality will be improved. Similarly, Misfud et al. (2023) reveal that internal auditors tend to seek advice from the audit committee when faced with complex ethical matters. Thus, having a positive organisational ethical climate is very important in ensuring the audit committee can function effectively. This situation allows internal auditors to operate in a strong ethical climate and they will be in a better position to detect fraud. Therefore:

Hypothesis 2: Organisational ethical climate is positively associated with internal auditors' ability to detect fraud.

Data Analytics

Relying on the traditional method of processing data poses a great challenge to auditors nowadays due to the need to handle a large volume of data. The traditional method, which is more labour-intensive and time-consuming, is vulnerable to human errors (Shalhoob et al., 2024). On top of that, failing to effectively handle a large volume of data exposes businesses to fraudsters (Ditkaew & Suttipun, 2023). Weak data management will enable fraudulent activities to take place unnoticed, eventually impacting the financial integrity of the business. As a result, the adoption of data analytics tools is a complementary means to help auditors analyse a large volume of data more effectively.

The four types of data analytics are descriptive, diagnostic, predictive and prescriptive. The main objectives of descriptive analytics are to find trends and patterns based on past data. For getting further explanation as to the occurrence of certain events or patterns (Thakkar et al., 2025; Al-Sai et al., 2022), auditors could run a diagnostic analysis. Statistical models and forecasting techniques are utilised in predictive analytics to suggest or predict future outcomes based on the given data (Abdul-Jabbar & Farhan, 2022). Finally, prescriptive analytics help in recommending the best solutions to overcome current challenges and plan strategically for the future (Pohl et al., 2022). Adoption of data analytics tools may help auditors in many ways, such as they can work efficiently because they can run various analyses in a relatively short period of time. Besides, employing data analytics in performing audit work will strengthen their fraud detection ability, improve audit processes and improve decision-making (Anggraini et al., 2025).

Based on the above discussion, the use of data analytics is predicted to improve internal auditors' ability to identify irregularities, evaluate risks, and challenge misleading financial information. As such, the adoption of data analytics tools stimulates auditors' ability to detect fraud more effectively. Thus, the following hypothesis is formulated:

Hypothesis 3: The adoption of data analytics tools has a positive relationship with internal auditors' ability to detect fraud.

Moral Disengagement as a Moderating Variable

Moral disengagement grounded in social cognitive theory refers to individuals' tendency to justify their unethical behaviour and allow them to be freed from feeling guilty (Bandura, 1999). It consists of eight interrelated mechanisms grouped into three clusters: 1) cognitive reconstruction of behaviour (moral justification, euphemistic labelling and advantageous comparison), 2) minimising accountability (displacement of responsibility, diffusion of responsibility and distortion of consequences) and 3) shifting focus to the victim (dehumanization and attribution of blame) (Bandura, 1986, 1999). All these mechanisms enable individuals to rationalise their misconduct without any psychological feeling of discomfort.

According to Dennerlein and Kirkman (2022), moral disengagement can influence the way auditors approach their work. Internal auditors with a high level of moral disengagement may have a higher tendency to conceal errors or deceive others (Basaad et al., 2023). Also, their ability to exercise professional scepticism when evaluating audit evidence may be compromised (Hurtt et al., 2013). Previously, moral disengagement was posited to affect auditors' professional conduct. Auditors with high moral disengagement are claimed to be less sensitive to ethical issues and may disregard sceptical intuitions, ultimately weakening their fraud detection ability (Saidon & Che Salleh, 2023). Conversely, auditors with stronger scepticism are better positioned to resist such disengagement.

Thus, although professional scepticism is a pivotal factor for detecting fraud, moral disengagement may disrupt this relationship by impairing auditors' ethical judgment and questioning mindset. To address this effect, the following hypothesis is developed:

Hypothesis 4: Moral disengagement moderates the relationship between professional scepticism and auditors' ability to detect fraud.

CONCLUSION

This paper aims to propose a framework that integrates three variables (professional scepticism, organizational ethical climate and the adoption of data analytics tools) that influence the ability to detect fraud among internal auditors, with moral disengagement acting as a moderating variable. It is an attempt to explain the fraud detection issue among internal auditors from the lens of behavioural, organisational and technological perspectives. Meaning, fraud detection ability among auditors needs to be investigated more holistically, not only focusing on the auditors' cognitive competence but also the ethical context and digital capabilities.

Importantly, the inclusion of moral disengagement in the framework leverages the application of social cognitive theory to the auditing field. The novelty of this action is that it offers new insights as to why, in certain circumstances, auditors fail to detect fraud even though they realise the need to have a sceptical mind when performing the audit work (Hurt et al., 2013).

The proposed framework also posits that organizational ethical climate and technological resources may shape auditors' ability to detect fraud. It is argued that a positive ethical climate may promote transparency and integrity (Victor & Cullen, 1988; Sajari, Haron, & Ismail, 2019) within organisations. Thus, auditors who are working in ethically sound environments will have a higher tendency to fully utilise their sceptical minds when confronted with ambiguous evidence. In addition, the adoption of data analytics tools is predicted to have influenced auditors' ability to detect fraud because it enables auditors to execute various advanced analytical procedures within a relatively short time frame.

Currently, the proposed framework is in the process of being empirically tested using quantitative methodology by administering survey questionnaires to internal auditors across various organisations. This method is suitable because the survey is a quick, inexpensive and efficient way to collect data (Zikmund, 2003), especially for research with a large sample size (Hair, Bush, and Ortinau, 2003). Structural equation modelling (SEM), such as AMOS (Analysis of Moment Structures) or SmartPLS, will be utilised to test the hypotheses because SEM allows simultaneous assessment of direct, indirect and moderating effects (Hair et al., 2019; Byrne, 2016).

Future research could employ a mixed-method research design by adding a qualitative aspect through semi-structured or in-depth interviews with auditors. The qualitative part will enable the exploration of internal auditors' perspectives and contextual factors. This approach could help triangulate and enhance the validity of data gathered from the survey questionnaires and thus lead to rigorous findings (Creswell & Plano Clark, 2018).

In summary, the proposed framework advances research in the auditing field by integrating individual and situational factors in examining the ability to detect fraud among internal auditors. Also, it takes into account the ethical challenges posed by moral disengagement. Theoretically, the proposed framework integrates social cognitive and attribution theories into examining fraud detection. If empirically tested, the findings will offer practical insights into the auditing field in the sense of designing audit training, policy development and technological adoption strategies. It is expected that both theoretical and practical contributions will eventually help to uphold audit quality and public trust.

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