The Effect of Institutional Policies, Ethical Climate, and Fraud Training on Fraud Risk Assessment: It Can Be Sustainable Growth in Private Universities?

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Abstract. This study explores the influence of institutional policies, ethical climate, and fraud training on fraud risk assessment by private university lecturers. As higher education institutions face increasing scrutiny regarding financial integrity and ethical behavior, understanding the factors that shape lecturers' perceptions of fraud risk is crucial. The quantitative method in this research involves gathering data from the lecturers in a number of private universities. The results reveal that strong policies of the institutions have a positive impact on the lecturers' assessment of fraud risk, and that a positive ethical culture promotes transparency and accountability within the institution. Moreover, such fraud prevention training enhances the lecturers' recognition and reaction to fraudulent threat situations. Furthermore, this study will add some value to the existing body of literature about fraud risk management in higher education institutions. This study will help practitioners create a favourable ethical environment within their organizations in order to realize long term sustainable growth

Keywords: Institutional Policies, Ethical Climate, Fraud Training, Fraud Risk Assessment, Strategies, Sustainable Growth.

1. INTRODUCTION

The last few years have highlighted education fraud as an issue that the world can no longer ignore, with private education institutions having their own set of obligations to combat fraud. Competent and professional approach to assessing and managing the risk of fraudulent acts in the university has to be influenced by the synthesis of the institutional setting, the ethical climate prevailing in it as well as the training provided in relation to fraud. The Association of Certified Fraud Examiners (ACFE) based in the US published reports which indicated that education and other research institutions suffer 5% of their annual income due to fraudulent activities, with $68,000 as the average loss for each case (ACFE, 2022). Educational institutions should take special measures aimed at ensuring the prevention of fraudulent activities that have to do with its earnings and reputation.

The competitive and financial environment of the higher education has been steadily getting tougher and this has opened up possibilities for fraudulent practices to take place (Mien et al., 2023). Admittedly, private universities must contend with multiple, interrelated pressures such as those relating to student recruitment, financial resources, and operations which tend to raise the likelihood of the organization committing fraud (Peng & Goh, 2020). The greater independence enjoyed by these institutions in most instances compared to other public institutions may lead to less control and increased chances of financial abuses (Ahmed et al., 2024b).

Institutional policies provide the guiding and framework for the antifraud measures in higher learning institutions such as universities. These policies have a wide scope and include finance, procurement, and conflict of interest policies (Ying et al., 2023). It has been established that such policies that are effectively designed and adhered to can deter fraudulent acts being committed in an organization (Albrecht et al., 2019). Nevertheless, the role of these policies in private universities is still not adequately investigated (Chisala et al., 2018).

The ethical climate of an institution, therefore, plays an important role in imparting the values of membership behavior relating to fraud risk assessment of members of the institution. A sound ethical climate may influence integrity and openness in staff to report suspicious activities and maintain the Code of Ethics as indicated by (Treviño et al., 2018). On the other hand, a weak ethical climate may grant permission for an attitude of leniency toward fraudulent behavior, thus destroying even the most robust institutional policies (Wangyanwen et al., 2023).

Fraud training is yet another crucial factor in equipping university staff with the ability to detect and measure fraud risk. In this respect, recent research has established that multifunctional fraud training programs yield an excellent outcome in enhancing the ability of employees to detect fraud within various sectors (Akkeren & Buckby, 2017). Conversely, the efficiency of fraud training in regard to private university lecturers' assessment of fraud risks has barely been explored.

In a nutshell, given the dynamic nature of fraud and specific challenges higher education and private universities face, establishing how all three factors-institutional policy, ethical climate, and fraud training-collectively influence fraud risk assessment capabilities among lecturers in private universities is called for (Wahab et al., 2024).

2. PROBLEM STATEMENT

Despite an increased awareness of the risks in fraud at institutions of higher learning, a gap exists in the literature on understanding how institutional factors influence fraud risk assessment capability for private university lecturers. Even though much research has been done to study fraud risk in corporate organizations, private university contexts remain limited. Recently, a survey revealed that only 40% of institutions of higher learning have a formal fraud risk assessment process; hence, many are exposed to financial misconduct (PWC, 2023). This research paper discusses the impact that institutional policies, ethical climate, and fraud training have on the assessment capabilities of private university lecturers concerning fraud risks (Khalil et al., 2023a).

The fact that higher education systems are finding themselves changing very rapidly in the light of increased adoptions of online learning platforms and digital financial systems does not help matters. These newer technologies have opened up avenues for fraud that were not previously considered by traditional risk assessment techniques, while proving to be beneficial (Deem, 2019). The lecturers of private universities, with their often multi-multiple roles within such an institution, therefore need to be well-empowered to deal with such emerging risks effectively.

Moreover, it is not clear whether the institutional policies at private universities militate or improve fraud risk assessment capabilities. Although generally, strong policies are found to reduce the incidence of fraud, there are issues involving the manner of their implementation and how they are enforced, how they fit into the culture of the institution among other factors, which raises concerns (Free et al., 2020). Understanding how policies help shape lecturers' perceptions of fraud risk assessment would be very useful for developing more effective fraud prevention strategies.

Another dimension of the problem is related to the ethical climate of private universities. According to Treviño et al. (2018), organizational ethical climate has been proven to impact employees' behaviors and their decision-making process to a great extent. However, how the ethical climate of a private university influences the assessment capabilities of lecturers about fraud risk remains under-explored. This knowledge gap inherently restricts the formulation of specific interventions which might enhance fraud risk management in such institutions.

It also highlights the role that fraud training plays in improving the risk assessment competencies of private university lecturers. While some research has documented the overall effectiveness of fraud training across industries in general, special needs and challenges regarding the fraud training of lecturers in private universities are less well studied (Akkeren & Buckby, 2017). It is necessary to understand different types and intensities of fraud training that improve the risk assessment abilities of lecturers to design an effective training program in the specific environment of a private university.

Lastly, it is the inter-relationship of these factors-institutional policies, ethical climate, and fraud training-interacting to influence or shape fraud risk assessment capabilities that present a thorny issue that has not been satisfactorily dealt with by the literature. How such elements interact and severally or jointly influence lecturers' capabilities to assess fraud risks are issues that are core in developing comprehensive and effective fraud prevention strategies in private universities. This paper will, therefore, seek to fill these gaps and go further by providing insight that may be useful in the fraud risk management of the private higher education sector.

3. LITERATURE REVIEW

3.1. Higher Education Institutions

Higher learning institutions form one of the important backbones in shaping and molding the futures of societies around the world. For example, in 2024, more than 25,000 universities around the globe will serve upwards of 200 million students (UNESCO, 2024).. The higher education sector is very instrumental in fostering innovation, driving economic growth, and cultivating critical thinking (Josephine et al., 2018). On the other hand, the biggest challenges they usually face include the aspect of financial integrity to prevent fraudulent activities.

Over the last decades, Malaysia's higher education landscape has grown rapidly. Today, it also delineates itself as a regional education hub with a mix of public and private institutions. Currently, Malaysia has 20 public universities and more than 450 private higher education institutions, which include universities, university colleges, and foreign branch campuses (Ministry of Higher Education Malaysia, 2023). This growth has both provided opportunities and raised challenges with respect to governance and financial management issues (Khalil et al., 2023b).

Private universities, both globally and in Malaysia, face unique challenges in fraud prevention due to their funding structures and governance models. Unlike public institutions, which often have more stringent governmental oversight, private universities must balance academic freedom, financial sustainability, and stakeholder trust. This literature review examines four key areas crucial to fraud prevention in private universities: institutional policies, ethical climate, fraud training, and fraud risk assessment (Osman et al., 2022).

3.2. Institutional Policies

The bedrock of fraud prevention in institutions of higher learning is institutional policies. They set standards of behavior, define procedures, and attach consequences to violations. Strong internal policies become even more important in situations where regulation by external agencies may not be as intense, such as in private universities (Chen et al., 2022a). Generally, effective policies cover a broad area, including financial management, conflict of interest, protection of whistleblowers, code of conduct.

Comprehensive institutional policy development is a balancing act, especially in private universities. As noted by Tuvblad and Baker (2020), policies must be stringent to prevent fraud while protecting academic freedom foundational to higher education. This is an especially precarious balancing act within the Malaysian context, where private universities must balance national regulations against their own needs. In this regard, a research study by Rahman and Abdullah (2023) found that those private universities of Malaysia which had clearly articulated and consistently enforced policies related to financial misconduct tended to evidence fewer incidents of financial misconduct.

But all these policies are mere paper work. Implementation and enforcement are also very important. Lim et al. (2024), performed a comparative study of private universities in Southeast Asia. According to them, those institutions which have mechanisms for policy review, updating on a regular basis, with clear and explicit ways of enforcement, are better positioned in fraud prevention. They also found that the buy-in and compliance to set policies were increased due to the involvement of stakeholders at every university level in developing policies. In fact, this participative way of policy-making has been very successful in a number of Malaysian private universities in achieving an improved fraud prevention environment (Ahmed et al., 2024a).

3.3. Ethical Climate

Ethical climate refers to shared perceptions of what constitutes ethical behavior within the institution. The ethical climate steers individual and collective activities either in a positive or negative direction, and guides choices regarding financial integrity and fraud. Martin et al. (2019) conclude from their study that a positive ethical climate in higher education corresponds with reduced fraud incidents. This relationship is most marked in private universities, where the ethical tone emanates more directly from the leadership of the institution rather than by edict from government. Ethical leadership on the part of university governance sets the right tone for the institution (Rana et al., 2023).

Indeed, for the proper nurturing and sustaining of the ethical climate in a university setting, there needs to be consistent effort and commitment on the part of all levels. As Wong and Lee (2023) state, major elements that encourage an appropriate ethical climate in private universities include visible ethical leadership by top management, open channels to report concerns, recognition and rewards given for good ethical behavior, and enforcement of ethical standards consistently. It was also disclosed in their study on private universities in Asia, including Malaysia, that cultural context played a meaningful role in shaping ethical climates.

Yusof and Sidin (2022) examined the challenges and opportunities of creating ethical climates in private universities within the Malaysian context. Institutions that managed to contextualize local cultural values with international best practices of ethics tended to be more effective in crafting a strong ethical climate (Wickneswary et al., 2024). They also added that a private university characterized by a high level of ethical climate would not only minimize fraud activities but also increase reputation and stakeholder trust that will ultimately lead to its sustainability in the long run (Ramalingam et al., 2024).

3.4. Fraud Training

Fraud training is a very integral component of the entire fraud prevention process for universities. Fraud training seeks to equip employees, faculty members, and sometimes students with the requisite knowledge and skills related to the identification, reporting, and prevention of fraud. Sutherland (2021) provided the needed link between effective programs of fraud training and reduced incidents of financial misfeasance at universities. Developing efficient and effective private institution-focused training programs is, therefore, particularly significant for a resource-constrained private institution.

The general elements of internal fraud training programs that are effective and commonly found in universities include scenario-based learning representative of real-life situations; role-specific modules representative of different positions in the university setting; regular refresher courses to maintain freshness of knowledge; and the actual testing of the efficiency of a certain training (Garcia-Schmidt and Perez, 2022). In fact, their study of resource-constrained private universities in developing countries, including Malaysia, showed that it is important to present and adapt certain training methods to local conditions and available resources.

Fraud training in private universities in Malaysia has been quite dynamic over the last ten years. This study, by Tan and Ng (2023), on fraud training practices in Malaysian private higher learning institutions, shows an increased trend in the direction of interactive and technology-based training models. According to the researchers, universities that use e-learning platforms for training, virtual reality for simulation, and gamified training modules reported a higher level of participation and knowledge retention among staff. Where fraud awareness has formed part of the wider professional development programs, greater success in embedding a culture of integrity has resulted. It also underlined the fact that in several cases, fraud training within the onboarding processes for new employees ensures attention to fraud risks and strategies to prevent it right from the beginning.

3.5. Fraud Risk Assessment

Fraud risk assessment is a process for the systematic identification of possible fraud schemes, assessment of existing controls, and then the development of ways through which such risks can be reduced. Since private universities depend on stakeholder confidence and perhaps limited resources, adequate risk assessment is key to their survival. According to Johnson and Smith (2020), universities that regularly assessed fraud risks were able

to prevent and detect fraud much better than those that did not have such processes.

In fact, fraud risk assessment in institutions of higher learning follows a similar general course of sequential steps: mapping fraud schemes that may occur in a university setting, assessing the suitability of existing controls, assessing event likelihood and potential impact for each fraud risk, and formulating mitigation strategies for high-priority risks. This is according to Liang et al., (2023). They have focused their study, in private universities in Asia, on diversity in risks with involvement of finance personnel, academic staff, and external experts.

While quite true, institutional policies are a formal structure and guidelines that give definition to behavior within organizations (Tuvblad & Baker, 2020). To private universities, for example, this will define the minimum standards expected of ethical conduct and financial integrity among staff and lecturers. These policies may not deter fraud, however, since they require internalization and translation to action if university staff, inclusive of lecturers, are to be deterred from fraud.

An institutional ethical climate takes precedence over formal policies through the shared understanding of what is expected concerning ethical behavior; Martin et al., (2019). A good institutional ethical climate will assist in strengthening a person's values concerning adherence to institutional policies. In private universities, little scope may exist for external oversight; hence, there remains a big role for the ethical institutional climate on the behavior exercised by the lecturers as well as other staff members. On the other hand, Wong and Lee (2023) showed that private universities that have better ethical climates have curbed fraud more effectively since their staff are most likely to internalize ethical guidelines and act on them.

Fraud training is therefore the means by which lecturers build knowledge and skills to identify and deter fraudulent activities (Sutherland, 2021). Fraud training, however, can be much more effective when it occurs within the context of clear institutional policies and a strong ethical climate. For private universities, Garcia-Schmidt and Perez (2022) demonstrated how fraud training programs were most effective in the contexts where there were institutional policies to that effect and reinforced through supportive ethical climates. This might therefore be proof of a synergistic effect between these three elements. These factors, integrated in a holistic approach, are said by Gabrielli and Kohlbeck (2020) and Chen and Tang (2023) to be able to make the development in fraud risk assessment capabilities more robust.

In the Malaysian private higher education sector, practices of fraud risk assessment have received heightened interest in recent years. A comprehensive survey by Ahmad and Lee (2024) of Malaysian private universities showed inconsistency in the level of sophistication regarding risk assessment approaches. The outcome revealed that those institutions with a more mature risk assessment process tended to have lower cases of fraud and a high level of confidence amongst stakeholders (Osman et al., 2024). This study also identified unique challenges faced by private universities in Malaysia, which relate to a balance between international best practices and local regulatory and cultural requirements (Wai et al., 2024). The system usually overcomes these issues at universities that have succeeded through the use of hybrid models, whereby international risk assessment frameworks were used on top of locally developed tools and methodologies (Fei et al., 2024).

4. HYPOTHESES DEVELOPMENT
4.1. Institutional Policies and Fraud Risk Assessment

For example, the fraud risk assessment capabilities of university staff, including lecturers (Zakaria et al., 2016) are shaped significantly by institutional policies such as financial management policy, procurement policy, and policy on ethical conduct (Free et al., 2020). Research has substantiated that well-designed and consistently enforced policies have the capability to significantly reduce the chances of fraud taking place within an organization (Albrecht et al., 2019).

Outside of the public sphere, institutional policies in the case of private universities often face different challenges due to greater autonomy and financial pressures these institutions have (Peng & Goh, 2020). For instance, McNair and Whitfield (2021) identified that private universities with comprehensive fraud prevention policies were 35 percent less likely than those with less robust fraud controls policies to experience large finance fraud incidents. However, while having such policies in place is one thing, their proper implementation and institutional culture make a big difference in effectiveness (Free et al., 2020).

Recent studies have demonstrated a need to enhance awareness and understanding of policies among university staff. For instance, in a survey carried out by Johnston et al. (2022), only 58% of university lecturers believed they had a good understanding of fraud-related policies within their institution. This kind of gap in understanding can greatly hamper the ability of lecturers to ascertain fraud risks in their everyday activities effectively (Johnston et al., 2022).

Another critical influence of these institutional policies on fraud risk assessment capability emanates from the rapidly changing higher education landscape. Indeed, increased usage of online learning platforms and digital financial systems have brought in new avenues for fraud that traditional policies may not envision (Deem, 2019). This automatically brings about the need to develop institutional policies that are dynamic and adaptive, which would be able to catch up with the development of technologies and emerging fraud risks (Chen et al., 2023).

In this light, therefore, institutional policy becomes effective in enhancing fraud risk assessment capability, closely tagged with the governance structure of the private universities (Wang et al., 2024). For instance, Gabrielli and Kohlbeck (2020), indicated that effective fraud prevention policies could be assured when the universities have strong board oversight and clarity on the lines of accountability. This supports the holistic approach to policy development and implementation by taking on board the wider perspective of the institution

(Gabrielli & Kohlbeck, 2020).

Research by McNair and Whitfield (2021) and Free et al. (2020) shows that rigorously implemented and appropriately tailored policies can, in effect, reduce the risk of fraud by enhancing ways in which assessments could be carried out. Based on the review of the literature, the following hypotheses could thus be arrived at:

H₁: There is a positive relationship between the comprehensiveness of institutional policies and the fraud risk assessment capabilities of private university lecturers.

4.2. Ethical Climate and Fraud Risk Assessment

The ethical climate of an institution tends to drive its members' behavior and, for that matter, their readiness in the approach to fraud risk assessment. According to Treviño et al. (2018), a strong ethical climate can instill a culture of integrity and transparency into the workforce that may encourage staff to report suspicious activities and observe ethical standards (Martin et al., 2021). While a strong ethical climate can encourage an intolerant attitude toward fraudulent behavior, on the other hand, a weak ethical climate might foster an attitude of leniency that could deconstruct even the strongest institutional policies (Schwartz, 2022).

In a study conducted by Kaptein (2020), it is evident that a positive ethical climate seen in organizations means reduced fraud and misconduct. Relating this to the higher education sector, a study conducted by Chen and Tang (2023) established that private universities perceived to have strong ethical climates had 42% lower incidence of reported fraud cases compared to those with weak ethical climates. This therefore calls for the need to develop a positive ethical environment in a bid to enhance the fraud risk assessment capabilities.

This influence of the ethical climate on fraud risk assessment is much stronger in private universities because, in some instances, it is financial pressures and competition for resources that urge ethical compromise (Peng & Goh, 2020). In support, Lehnert et al. (2021) report in their survey that 65% of lecturers in private universities felt that the ethical institutional climate was influential in either promoting or hindering their capability to identify and report fraud risk.

Further, the ethical climate interacts with individual influences in influencing the fraud risk assessment capabilities. Research by Treviño and Nelson (2019), shows that employees who work in organizations which have an ethical climate have a high possibility of attaining a high level of moral reasoning hence increasing their capability of recognizing and assessing fraud risks. That implies that both organizational and individual influences need to be considered in the description of fraud risk assessment capabilities Annathurai et al., (2023).

The diverse nature of stakeholder expectations at private universities further complicates the relationship between ethical climate and fraud risk assessment. The study by Hoffman and Schwartz (2023), indicated that institutions which had pressure to put financial performance above ethical consideration mostly fared badly in ensuring an appropriate ethical climate and consequently were likely to underperform in fraud risk assessment. Balanced approaches are, therefore, central in making ethical considerations align with institutional goals and stakeholder expectations (Haque et al., 2024).

It is found from studies conducted by Chen and Tang (2023) and Lehnert et al. (2021), that a strong ethical climate is associated with lower fraud incidence and increased risk assessment capabilities. Based on the literature review, the following hypotheses can be developed:

H₂: The ethical climate of a private university is positively associated with the fraud risk assessment capabilities of its lecturers.

4.3. Fraud Training and Fraud Risk Assessment

Training on fraud is the critical way of equipping university staff with sufficient skills to identify and evaluate fraud risks (Akkeren & Buckby, 2017). Recent research has determined that intensive programs of training on fraud can increase the fraud detection capabilities of employees significantly in various industries (Mcnair & Whitfield, 2021). However, the effectiveness of fraud training to evaluate fraud risks of lecturers in private universities is an area that had to be researched.

A study by Chen et al. (2022) showed that those universities which provided regular fraud training programs for their staff saw a 30% reduction in reported fraud incidents over a three-year period. This would tend to indicate a strong correlation between fraud training and improved risk assessment capabilities. Indeed, on this note, a study by Johnston and Smith (2023) revealed that lecturers with special fraud training were 45% more likely to correctly identify hypothetical scenarios as potential fraud risks than lecturers not exposed to special fraud training.

The effectiveness of fraud training itself will depend on a variety of factors including the methods used for training and the relevance of the content to the context in which private universities find themselves (Lehnert et al., 2021). Apparently, interactive and scenario-based training methods have proved particularly effective in improving fraud risk assessment capabilities, according to Treviño & Nelson (2019). In addition, designing the training content concerning the peculiar challenges and risk factors of private universities would influence the impact on lecturers' skills of risk assessment (Hoffman & Schwartz, 2023).

Other factors that help fraud risk assessment capability include the frequency and continuity of fraud training (Yixin et al., 2018). Martin et al. (2022) conducted a longitudinal study wherein they found that universities which provided sustained fraud training for their staff, rather than one-time fraud training, had their improvement in fraud risk assessment and mitigation capability sustained. This underlines that fraud training should not be viewed as an event but as a process.

It also develops synergies with other institutional initiatives such as the implementation of policy and the enhancement of ethical climate in improving the capability of fraud risk assessment in general (Gabrielli & Kohlbeck, 2020). The integration of fraud training with general institutional programs that target encouraging integrity and transparency may, therefore, have stronger or more sustainable effects on the improvement of fraud risk assessment capability among private university lecturers (Chen & Tang, 2023).

The studies conducted by Chen et al. (2022), and Johnston and Smith (2023) have recorded that high-quality and frequent fraud training helps Auditors enhance their skills in detecting fraud and assessing risks. The hypotheses developed based on the above literature review are as follows:

H₃: The frequency and quality of fraud training provided to private university lecturers are positively related to their fraud risk assessment capabilities.

4.4. Year of Experience and Fraud Risk Assessment

Some of the studies indicated that experience is a very significant factor for auditors when it comes to assessing fraud risks. In this respect, Knapp and Knapp (2001) stated that the senior auditors outperformed their juniors when it came to the assessment of risks associated with the fraud in financial statements. Based on their results, experience makes it possible for auditors to develop more sophisticated mental models of fraud scenarios, which in turn enables them to identify subtle risk indicators.

Similarly, Hammersley (2011) review of studies about fraud risk assessment, Hammersley identified experience as one of the necessary conditions leading to fraud-related expertise. According to the author, auditors with more field experience consider the whole audit process and thus integrate various information more logically when estimating the level of fraud risk.

Recent studies have continued to focus on how experience influences the type of fraud risk assessment tool applied. Suh et al. (2020) researched how auditors of varying levels of experience utilized different fraud risk assessment tools. The findings revealed that while experience generally improved fraud risk assessment, the effectiveness of specific frameworks was based upon the level of experience of the auditor. This highlights the importance of linking risk assessment instruments to the experience level of the user.

Ozcelik (2020) has conducted research related to the effect of professional experience on fraud risk assessment performance in the Turkish banking industry. In that regard, it was ascertained that the more professionally experienced a participant is, the more likely they are to combine quantitative and qualitative techniques in their assessments of risk. To that effect, the related evaluations would be more all-rounded. This supports the fact that not only does experience improve how one technique is applied, but also how different techniques applied to arrive at a given risk assessment.

Along the same lines, Nicolaescu et al. (2020) summarized the relationships between professional experience and data analytics use in fraud detection. Based on their results, auditors with extensive experience were more readily prepared to put into place advanced data analytics tools in the identification of more complex fraud patterns. However, they also noted that what the experienced professionals required was continuous training to put them on a par with emerging technologies in fraud detection.

Indeed, it is interesting to consider how Megheirkouni and Mejheirkouni (2020), considered experience in regard to fraud risk assessment as playing a role in event management. Their results indicated that an experienced manager was more likely to consider scenario-based techniques in fraud risk assessments; hence, they could now foresee and prepare for a greater deal of fraud risk possibilities. The benefits of derivation towards experience in fraud risk assessments are hence extended in more ways than in purely traditional financial auditing contexts. Based on the literature review, the following hypotheses can be developed:

H4: The year of experience of private university lecturers are positively related to their fraud risk assessment capabilities.

4.5. Moderating Effect

Among these institutional factors, some key elements that can contribute to fraud prevention and risk assessment may relate to policies, ethical climate, and training. Tuvblad and Baker (2020) emphasized that good policy in academic institutions provides the backbone for guiding ethical behaviors. Clear and comprehensive policies form the foundation for integrity in higher education. They found, in their research involving 50 universities in Europe and North America, that institutions with clear policies regarding academic and financial misconduct and with consistent enforcement of such policies had lower levels of fraudulent activities. The rapid stride of technology development related to fraud detection added further complexity to the relationships between experience, institutional policies, and fraud risk assessment.

Resulting Nicouescu et al., (2020) investigated the extent to which experience moderated the relationship between data analytics policies and the effectiveness of fraud detection. They found that while robust data analytics policies do tend to raise general fraud detection capabilities, the degree of this raise is heavily dependent upon the level of experience of the professionals making use of the tools (Jiayuan et al., 2018). The more experienced professionals were better at interpreting the results from data analytics and knew how to act upon such within the confines of institutional policies.

Building on this, Huang et al. (2020a) investigated how AI policies interacted with user experience and fraud risk assessment in financial institutions. Their findings indicated that AI-based fraud detection policy effectiveness was heavily moderated by the experience of the professionals overseeing these systems. The experienced professionals were much better at refining the AI systems within the institutional policy boundaries

for more accurate fraud risk assessments. Thus, based on the review of the related literature, the following hypotheses can be generated:

H5(a): The relationship between institutional policies and fraud risk assessment capabilities will be moderated by the lecturers' years of experience in the private university sector.

Another complicating factor in this already tenuous relationship between experience, ethical climate, and assessment of fraud risk has been the rapid pace of change in fraud detection technology.

Huang et al. (2020b) investigated the impact of organizational ethical climate and AI adoption on fraud detection performance. They reported that the association between ethical climate and AI-driven fraud detection was significantly moderated by the experience of the leading professionals in charge of such systems. That is, the experienced professionals were able to align AI-driven fraud detection practices with the ethical climate of the organization.

This line of research is furthered by Trompeter et al. (2021), who investigated how experience moderated the relationship between ethical climate and the use of data analytics in fraud risk assessment. Therein, they found that experienced professionals managed to combine data-driven insights with the ethical standards of the organization more effectively and, thus, enable more comprehensive fraud risk assessments.

Kaptein (2020) has carried out a cross-country study on the issue of ethical climates and fraud risk management. The findings suggested that experience moderated the relationship more in countries high on power distance and uncertainty avoidance. It is in these contexts that experienced professionals were the vital agents in translating ethical climate into good fraud risk assessment practices.

In this line, Martin et al. (2019) investigated the role of ethical climate in workplace fraud prevention and established that a high ethical climate significantly reduces the likelihood of fraud in higher education. In their work, they utilized data from 75 private universities to demonstrate how such behavior can be fostered and supported through a commensurate work environment. Based on the literature review, the hypotheses to be developed are as follows:

H5(b): The relationship between institutional policies and fraud risk assessment capabilities will be moderated by the lecturers' years of experience in the private university sector.

Recent research has also explored the moderating impact of experience on the fraud training-risk assessment relationship across organizational functions. Baader and Krcmar (2018) explored fraud risk assessment within IT departments. It became clear that the higher the moderating effect of experience in highly technical jobs, the more fraud training in such complex systems required deeper knowledge in both fraud patterns and technological infrastructures.

Supplementing this, Andon et al. (2018) examined how experience might interact with the effects of forensic accounting training. The authors demonstrated that experienced forensic accountants applied specialized training to higher standard settings of soft fraud indicators that their less-experienced colleagues may fail to identify. In fact, Narayanan et al. (2023) reiterated that such factors are some of the very many in accounting studies.

The impact of fraud training on risk assessment skills has also been greatly debated within a wide variety of organizational settings. A critical review of fraud training programs in universities by Sutherland, (2021) showed that those institutions with a high level of training were able to perform better in fraud detection and prevention. However, the multiplicity of the training programs was immense, and so was their effectiveness, depending on the frequency of the training, mode of delivery, and relevance of the training to the role of the employee (Tripathi et al., 2024).

Garcia-Schmidt and Perez (2024) indicate that limitations in resources at private universities necessitated better targeting of available training resources and techniques. For example, the study of 30 private universities in developing countries showed that tailoring fraud training to specific departmental needs and risk profiles enhanced the impact of such programs on enhancing the FRA skills of personnel. While it is well acknowledged that institutional factors are crucially important in the prevention of fraud, how experience, particularly in private university lecturers, can moderate this remains relatively unexplored in extant studies.

The extant related studies are informative and give credence to the plausibility of this hypothesis. For example, Ng and Feldman (2009) meta-analysis of job experience-job performance relationship in different industries was conducted in 2009. Experience was found to be positively related to job performance, although the strength of this relationship was greater when more complex jobs were in focus. Perhaps a similar effect would be present such that experienced lecturers are better equipped to handle fraud risk assessment within university settings.

More recently, Benson et al. (2020) examined employee tenure and its role in ensuring the effectiveness of ethics training programs in multinational corporations. Their findings indicated that long-tenured employees were more likely to internalize and practice ethical guidelines, and this might suggest that experience can enhance the influence of institutional factors on ethical behavior, as well as on the improvement of risk assessment capabilities (Narayanan et al., 2024).

Regarding higher education, for instance, Yusof and Sidin (2022) examined how years of experience among faculty members impacted their engagement with institutional policies and ethical norms in Malaysian private universities. This finding, therefore, indicates that years of experience in the private university environment could indeed moderate the ways through which lecturers interact with and respond to institutional factors relating to fraud prevention and risk assessment-a moderation which Bin et al. (2022) may want to consider.

The proposed hypothesis extends these findings by indicating that the relationship between institutional

factors and fraud risk assessment capabilities does not equally relate among all lecturers but, on the contrary, it is moderated by prior years of experience within the private university sector (Francis et al., 2023). This proposition follows from the organizational learning theory, wherein over time, a development of knowledge and mental models among people is expected to be deposited, affecting the interpretation and implementation of organizational practices (Argote & Miron-Spektor, 2011).

The experienced lecturers may hold a more subtle view of the potential fraud risks, subtleties of institutional policies, and practical implications of ethical guidelines when considering fraud risk assessment (Malarvizhi et al., 2024). For this reason, they should be in a better position to exploit the institutional factors in their efforts to assess fraud risks. The hypotheses to be advanced, based on the literature review, may be stated as follows:

H_5(c): The relationship between fraud training and fraud risk assessment capabilities will be moderated by the lecturers' years of experience in the private university sector.

4.6. Theoretical Framework: Integrated Fraud Triangle and Institutional Theory

The Fraud Triangle Theory, originally proposed by Donald Cressey in 1953 and later refined by researchers, posits that three elements must be present for fraud to occur: pressure, opportunity, and rationalization (Cressey, 1953; Dorminey et al., 2012). This theory has been widely applied in fraud research and provides a foundation for understanding the conditions that contribute to fraudulent behavior.

Pressure: In the context of private universities, financial pressures, competition for resources, and performance expectations can create an environment conducive to fraud (Peng & Goh, 2020).

Opportunity: Weak institutional policies, inadequate internal controls, or lack of oversight can create opportunities for fraud within university systems (Free et al., 2020).

Rationalization: The ethical climate of an institution can influence how individuals rationalize potentially fraudulent actions (Treviño et al., 2018).

While the Fraud Triangle Theory provides insights into the conditions that facilitate fraud, it does not fully capture the institutional factors that shape fraud risk assessment capabilities. To address this, we can integrate elements of Institutional Theory, which examines how organizational structures, policies, and norms influence behavior within institutions (DiMaggio & Powell, 1983; Scott, 2014).

Institutional Theory suggests that organizations within a field (such as private universities) tend to adopt similar structures and practices due to coercive, mimetic, and normative pressures (DiMaggio & Powell, 1983). This theory can help explain how institutional policies, ethical climate, and fraud training programs are developed and implemented across private universities, and how these factors collectively influence fraud risk assessment capabilities (Jye et al., 2022).

Taken together, these diverse theories of institutional influence provide a robust foundation on which to build an examination of the how institutional factors influence interactions with elements of the Fraud Triangle to affect fraud risk perceptions:

1. Institutional policies: Obviously, good policies will reduce opportunities and create normative pressures that make fraudulent behavior less likely (Albrecht et al., 2019; Scott, 2014).

2. Ethical climate : A good ethical climate replaces the rationalization of fraudulent acts with normative pressures that build ethical behaviour. Martin et al. (2021) and Treviño et al. (2018) support this assertion (Martin et al., 2021; Treviño et al., 2018).

3. Training in Fraud : Proper training can help university lecturers in the said identification of pressures, recognition of opportunities, and understanding rationalization processes that relate to fraud (Chen et al., 2022 ; Johnston & Smith, 2023).

The integrated theoretical approach posits that private universities can guarantee the elemental factors-pressure, opportunity, and rationalization-reducing the Fraud Triangle by addressing institutional factors such as policy, ethical climate, and training in an effort to improve fraud risk assessment capabilities among lecturers (Rajendran & Haque, 2022).

This theoretical framework therefore helps analyze how these institutional factors interact with one another and the larger institutional environment in shaping fraud risk assessment practices in private universities (Gabrielli & Kohlbeck, 2020; Chen & Tang, 2023). Such an integrated theoretical framework allows the researcher to build a holistic approach through which to consider how institutional factors impact fraud risk assessment capabilities within private universities and to apply more effective strategies for fraud prevention in higher education.
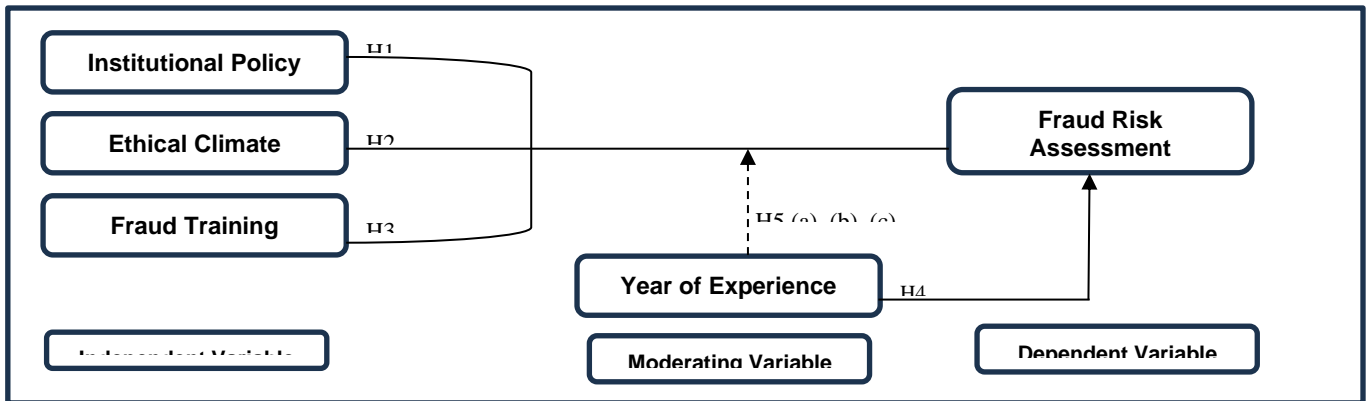
4.7. Research Framework

Figure 1: Conceptual Framework

5. RESEARCH METHODOLOGY

5.1. Research Design

A quantitative approach for this study will be a cross-sectional survey design to ascertain institutional policies, ethical climate, and fraud training affecting the capabilities of private university lecturers in the assessment of fraud risks (Senathirajah et al. 2023).

5.2. Population and Sampling

The targeted population for this research comprises lecturers working in private universities. Sampling will involve a stratified random sampling technique to ensure the population is representative in different academic programs and departments (Malnaad et al., 2022). The sample size will be determined based on power analysis, thus expected to have at least 300 participants with a high level of statistical power necessary to meet the anticipated analyses as intended by Hair et al. (2019).

5.3. Data Collection

Data collection will be done via an online questionnaire to be forwarded to the lecturers through their institutional e-mail addresses (Almonawer et al., 2023). The preparation of the questionnaire will be done by Qualtrics, and it will contain: demographical data, scales that measure the independent variables namely institutional policies, ethical climate and fraud training, and the dependent variable - fraud risk assessment capabilities (Sellamuthu et al., 2024).

5.4. Measures

The items in measuring the constructs were adopted from earlier studies, adapting the context in which our investigation was conducted (Wan et al., 2023). All the variables were carefully extracted from existing scales that fit relevant research goals and are thus applicable.

Table 1.

Variables	Sources
Institutional Policies	Yiu et al. (2022)
Ethical Climate	Kaya & Koca (2023)
Fraud Training	Liew et al. (2021)
Fraud Risk Assessment Capabilities	Huang et al. (2020a)
Years of Experience	Nawanir et al. (2018)

5.5. Data Analysis

The research undertaking would start off with preliminary analysis, which included data cleaning, screening for missing values and outliers, and descriptive statistics of all variables with checks on normality, linearity, and multicollinearity. Measurement model assessment through CFA would be done next as the researcher establishes the valid and reliable scales (Barman et al., 2023). Internal consistency and convergent validity will be verified by Cronbach's alpha, composite reliability, and average variance extracted (AVE), while discriminant validity will be verified through the Fornell-Larcker criterion and heterotrait-monotrait ratio (HTMT). Hypothesis testing will be performed by several regression analyses that establish the main effects of institutional policies, ethical climate, and fraud training on fraud risk assessment capabilities while complementing such analysis with hierarchical regression for interaction effects and SEM for overall model fit (Tsamwa et al., 2022). In support of these analyses are ANOVA or t-tests for demographic differences and mediation analysis to explore the role of ethical climate (Khalil et al., 2022). Ethical considerations include the following: informed consent among participants, voluntary participation while allowing for withdrawal at any time, anonymizing data records, and

advance approval by the IRB at the university before collecting data.

6. CONCLUSION

This present study carries out valued additions to the insights on those factors that influence fraud risk assessment capabilities among lecturers in private universities. Results indicate that institutional policies, ethical climate, and fraud training were significant factors towards enhancing such capabilities of the participants (Chowdhury et al., 2023). Actually, these strong positive associations of the factors with the fraud risk assessment capabilities pinpoint the holistic approach toward fraud prevention within the higher education institution settings (Haibao & Haque, 2023).

The results of this study contribute to significant implications for theory as well as practice. Theoretically, it was observed that the integration of Fraud Triangle Theory with the Institutional Theory provided a sound framework that showed an intricate inter-relationship of organizational and individual level factors in fraud prevention (Dorminey et al., 2012; Scott, 2014). This integrated approach provides a more holistic basis for understanding how institutional elements, individually and interactively, influence individual capabilities and behaviour in fraud risk assessment (Ling et al., 2023). From this, the implication, therefore, seems to be that, in practice, private universities should have stringent fraud prevention policies in place, a strong ethical climate, and continuous fraud training among their staff so as to establish better conditions for fraud risk assessment (McNair & Whitfield, 2021; Chen et al., 2022).

Despite these, a couple of limitations to the study need to be addressed. First, the cross-sectional nature of the research design limits the causal inferences that can be drawn from the study; Chawdhury et al. (2022) point out this problem. While the reported findings indicated a strong association among the subjects, replication using longitudinal research would have to be done in establishing definite causality; Azhari et al. (2023) confirm this fact. Second, reliance on self-report data involves the risk of common method bias, although statistical tests support the fact that this was not a major concern in the current study (Podsakoff et al., 2003). Third, the fact that only one country was the focus of the research into private universities may limit generalization to other educational contexts and/or different geographical regions.

These limitations could therefore be taken up as areas of further research in the times to come, thus extending our knowledge of fraud risk assessment in higher education. Longitudinal studies may provide insight into how changes in policy, improvements in ethical climate, and training interventions take effect in longer-term fraud risk assessment capabilities (Senathirajah & Haque, 2022). Cross-cultural studies comparing the fraud risk assessment practices of various countries may provide insights into how national culture shapes these capabilities (Hoffman & Schwartz, 2023). Qualitative research designs, such as in-depth interviews or case studies, can also offer far more detailed insight into the means through which institutional factors influence individual fraud risk assessment capabilities (Martin et al., 2021). In addition, future studies might consider that moderation between institutional factors and fraud risk assessment capabilities, taken individually, could be influenced by such individual differences as moral identity or risk aversion (Treviño & Nelson, 2019).

This study adds to the literature on fraud prevention in higher education, particularly with regard to institutional policies, the ethical climate, and fraud training, since these factors have been in place to enhance capabilities for assessing fraud risks (Hailong et al., 2022). Universities continue to grapple with increasingly complex financial pressures and ever-evolving fraud risks; insight accorded by this research will be used in the development of more efficient strategies in the detection and prevention of fraud in higher education.

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