Financial statement misrepresentation: the role of internal and external audit

Abstract

Purpose
This paper focuses on the importance of internal and external audits in reducing misrepresentation or falsification of financial statements and examines the key characteristics, reasons, and methods for committing as well as confronting fraud.

Design/methodology/approach
Electronic questionnaires were sent to stock-exchange-listed companies with an internal audit department. Descriptive statistics, factor analysis, and multiple regressions show that internal audit contributes significantly to reducing fraud.

Findings
Factor analysis shows a significant internal audit contribution against fraud. Linear regression highlights the significance of variables concerning the reasons for falsification, external auditors' competence, and internal auditors' and audit committees' efficiency.

Research limitations/implications
Business fraud is organised and therefore difficult to detect, disclose, and prevent, especially when conducted by the board of directors; further, it is more common in businesses without control mechanisms.

Practical implications

Audit's role is key in preventing and detecting fraud; it should act as a strong, internal, independent control function.

Originality/value
Despite the importance of audit, the phenomenon of fraud, there has not been much empirical research on this issue.

Keywords: financial statement misrepresentation; fraud; internal audit; external audit; audit committee.

JEL Categories: M42, M48

1. Introduction

Corporate scandals have resulted in huge financial loss for markets, as well as for investors and employees. The cases of financial fraud that have been revealed have raised concerns regarding the efficiency of internal audits as well as the reliability and validity of external audits (Rezaee, 2002).

Users of financial statements make investment decisions based on the information that has been extracted from companies. Consequently, this information has to be valid and depict the reality in order for the right decisions to be made. However, the intensely competitive corporate environment has led to a focus on presenting a better image rather than improving efficiency (Lundelius, 2011).

Each institution has to take measures in a timely manner to avoid any unpleasant situations. A powerful system of internal and external audits helps corporations in completing the difficult task of preventing their employees from committing fraud (Zager et al., 2016). Consequently, audit plays a major role, acting as a protector of audit reliability in economic matters and helping to prevent fraud (AICPA, Section 240).

To date, only a few studies have examined the role of auditing in relation to reducing the falsification of financial statements. The goal of this study is to examine the factors that affect the falsification level of accounting financial statements. It focuses on the falsification of financial statements, aiming to examine its characteristics and the reasons for, and ways of, committing and confronting fraud.

The results show the importance of internal and external audit, as well as of the audit committee in fighting corporate fraud and ensuring the reliability of financial statements. Furthermore, the results reveal that some demographic characteristics play a vital role in how internal and external audits are conducted.

The contributions of this study, on an academic and business level, are based on a complete framework related to the auditing role being a medium through which to recognise and confront fraud in financial statements.

2. Literature review and theoretical framework

2.1 Ways of committing financial statement fraud

Ghazali et al. (2014) examined the existence of fraud and highlighted the preventive measures applied in Malaysia. The results showed that the types of fraud most frequently committed are: the misappropriation of capital; false allegations regarding working hours or overtime; and the manipulation of accounts. These three types of fraud refer to the most frequent cases that respondents had witnessed. Theft and forgery were found to be the least common types of fraud. Finally, it was revealed that employees are often aware of fraud in their working environment, confirming that their organisations had been victims of fraud in the past.

Deloitte (2009) found that 38% of fraud is related to exploiting revenues, 12% to concealing costs, 12% to inappropriate disclosures, and 8% to manipulating liabilities.

Finally, Zager et al. (2016) found that the most common techniques used for falsifying financial statements are inappropriate techniques for excessive capital appreciation and undervalued costs. The most frequent techniques for undervaluing/overestimating costs include not recording costs and not properly recognising the expenditure. According to this study, corporations often accelerate their revenue recognition and record double revenues in order to increase their financial income by the end of the fiscal year. Concerning the misappropriation of assets, the respondents asserted that the theft of inventories is more common than the theft of long-term assets or cash.

2.2 Causes of committing financial statement fraud

Cressey (1950) concluded that the three factors that lead to financial statement fraud are: motive; opportunity; and rationalisation. Zulkurnai et al. (2006) conducted a survey concerning the concept of fraud, with the results showing that bad management techniques are the main reason behind fraud (86%). Financial pressure was the second most significant factor (57%). Inadequate education, increased workload, and political interests were also recognised as factors contributing to fraud. Consequently, the non-existence or inefficiency of internal audit, as well as poor corporate governance supervision should be monitored and addressed in order to prevent fraud.

A decade later, Reynolds (2018) examined the most frequent reasons for committing fraud, as well as proposing ways to prevent fraud. Furthermore, 86% of employees were aware of the corporations' inadequacy in conducting proper audits, thus severely limiting their ability to recognise fraud. Finally, 39% of the respondents agreed that were treated unjustly and underestimated in their work environment.

2.3 Auditor's competence

Krambia (2002) researched the auditor's competence in relation to highlighting irregularities. It is understood that the auditor has to know the cause of the fraud in order to track down any irregularities, by drawing information from other sectors. Consequently, the auditor must have knowledge of other fields, such as psychology and sociology. Finally, corporations that are more likely to present irregularities are characterised by the lack, both of an efficient internal audit system and a code of conduct.

Subsequently, Hammersley (2011) described the factors affecting fraud. The results showed that the competence of the auditors in evaluating efficiently the fraud risks is affected by their experience and could be improved through further discussion within the audit team. Moreover, significant factors in the detection of fraud include the auditors' knowledge, their ability to solve problems, and academic background. Knowledge is obtained through experience and education. Some studies, examined the effect of auditors' education on their ability to detect fraud. Those auditors who had participated in additional educational courses or obtained more knowledge concerning fraud, and financial statements would recognise more efficiently cases of fraud (Bierstaker et al., 2012; Ocak and Kurt, 2019).

The Financial Reporting Council (FRC) (2014) focused on the legislation and rules that auditors have to follow in order to confront efficiently the risks of fraud. In this context, auditors have to collect adequate evidence concerning legislative compliance in order to carry out audit procedures. Relevant laws and regulations have to be defined in the corporate environment and transmitted to employees, while auditors examine a firm's compliance to the letter of the law. Consequently, corporations have to provide adequate information, guidance, and training to their audit teams regarding relevant laws and regulations. According to the study of Othmana et al. (2015), which focused on the training and education of government officials in order to prevent cases of fraud, 47% of the respondents agreed that they were frequently trained in this regard. However, it is worth noting that 53% of respondents had not attended adequate educational courses in order to detect and prevent cases of fraud.

2.4 Ways of detecting fraud

Ziegenfuss (1996) examined cases of fraud at the state- and local-government level in the US. The most common methods of fraud detection include investigation by the authorities, internal audits, and accidental discovery. Chtourou et al. (2004) later examined how much the expertise, independence, and activities of the audit committee affect the quality of the published financial data of a corporation.

Subsequently, Ghazali et al. (2014) investigated the actions undertaken in several corporations following a fraud scandal. Most cases of fraud were revealed through the procedures of internal audits, which highlight the significance of internal audits. The results also showed that fraud is often detected after reports made by employees (71%). Other mechanisms for detecting fraud are accidental discovery, external audit, anonymous reports, and special audit due to corporate governance.

Coram et al. (2008) estimated how likely organisations with internal audits are to detect fraud in comparison with organisations without such audits. Thusly, organisations with internal audits are more likely to recognise cases of fraud than those without any such audits. Consequently, internal audit plays a vital role in fraud recognition using the tools at its disposal, namely the improvement of the audit environment and the monitoring of fraud risks.

Later, Zager et al. (2016) examined the roles and the responsibilities of relevant institutions in preventing and detecting fraud. The respondents were external auditors and the study focused on evaluating the frequency with which cases of fraud occur. The respondents agreed that the existence of internal audits significantly affects the prevention of disclosing fraudulent financial information. The following measures are proposed in order to reduce fraud cases: job rotation; training managers and employees concerning fraud; an anonymous system for reporting fraud cases; external audits to check financial statements; an independent audit committee; and a code of conduct.

Kassem and Higson (2016) aimed to examine the responsibility of external auditors in the context of corporate corruption and to underline the consequences of seeking external auditors' advice. The results showed that external auditors are responsible for estimating fraud risks, but that their role has not yet been clearly defined by the external audit authorities. Othmana et al. (2015) examined ways to detect and prevent fraud in the public sector in Malaysia. The results showed that the most efficient procedures for detecting and preventing cases of fraud are the following: strong audit committees; internal audit; job rotation; and a hotline for reporting fraud. The study revealed that fraud cases are mainly detected through audit procedures led by internal auditors.

More recently, due to the difficulty of detecting fraud in financial statements, companies and researchers focus their studies into machine learning techniques (El-Bannany et al., 2021) and prediction models (Erdogan and Erdogan, 2020). However small and developing countries do not seem to follow this trend and act randomly without strategy towards knowledge and technological support (Mustapha and Lai, 2017; Lois et al., 2019).

2.5 Results of internal audits

Initially, Chun (1997) focused on the functions of internal audits. Internal audit has to be an independent procedure in the corporate environment based on controlling and monitoring the internal audit system and providing it with useful information to enable it to efficiently and properly carry out its duty.

Razali and Arshad (2014) examined the relationship between corporate governance structures and the possibility of falsifying financial statements. Thusly, the function of internal audits is one of the most powerful supervision mechanisms within the framework of an efficient corporate governance system in an organisation. To achieve efficiency in an internal audit, direct communication with the audit committee is required. Moreover, the organisation should establish clear interaction/communication between the procedures of internal audits and audit committees. In this context, the importance of internal audits being independent is evident. In the same year, Kamau et al. (2014) analysed, using a questionnaire, the activities of internal auditors in Kenya. Internal auditors need the necessary knowledge, skills, and other qualifications to accomplish their task. Finally, internal audit activity should be free from interventions during its procedures.

Rudhani et al. (2017) analysed the factors that increase internal audit efficiency in the public sector in relation to preventing the abuse of resources. The results showed that efficiency is positively related to internal audit quality, the responsibility of the internal audit team, independence, and support of the internal audit through corporate governance. Moreover, the results showed that corporate governance is extremely well informed about the needs of an audit but that it provides more support for personal audit. The results confirmed that several factors (internal audit quality, the responsibility of the internal audit team, independence, and support of the internal audit through corporate governance) have a positive impact on the efficiency of internal audits. Thus, an audit is efficient if its quality is adequate and if the audit team has the competence, independence, and support to handle the task.

It should be mentioned that culture or geographical factors could also affect the significance of the internal auditor in the detection of fraud. A study on banking companies listed in the Indonesia stock exchange, argues that external auditors play a small part in the detection of fraud in financial statements (Syahria, 2019). In developing countries, factors reducing levels of fraud include loss of occupation, drop in business sector capitalization, and criminal indictment, due to a country's high rate of unemployment (Shree B., 2020). In another example, Uwuigbe et al. (2019), when investigating corporate governance and financial statement fraud among listed firms in Nigeria suggest less emphasis on audit committee independence, board composition and independent non-executive directors' effectiveness.

2.6 Efficiency of audit committees

Agrawal and Chadha (2005) empirically examined whether specific corporate governance mechanisms are related to the possibility of a corporation committing fraud. Analysing a sample of corporations in the US, the results showed that many main characteristics of corporate governance (such as independence of councils/audit committees and services provided by external auditors) are not related to the possibility a corporation falsifying financial information.

A decade later, Razali and Arshad (2014) examined the relationship between corporate governance and the possibility of deliberate financial misinformation.

Analysing 227 listed companies in Malaysia for the year 2010–2011, the results showed that the corporate governance structure reduces the possibility of fraudulent financial misinformation. More specifically, the results demonstrated the significantly negative relationship between the efficiency of the audit committee (and of internal audit) and the independent non-executive bodies in relation to the possibility of falsifying financial statements.

In the same year, Chukwunedu et al. (2014) studied the factors affecting the quality of the audit committee. Based on responses from 52 accountants in Nigeria, the results showed that the most significant factors affecting the quality of audit committees are education and the number of members on an audit committee. More specifically, the members of the audit committee should have three years of experience in a similar position and participate in regular educational courses to improve the quality of financial information. Moreover, the audit committee has to be composed of at least three members, while the majority should be independent and non-executive members. The least important factors in relation to preventing the falsification of financial statements were the audit committee meetings with external and internal auditors, as well as the frequency of audit committee meetings.

A year later, Persons (2015) developed a study to examine the importance of the audit committee in relation to the possibility of a company committing fraud by falsifying financial statements. Using a sample of 222 companies, 111 of which had been victims of fraud, the results showed that the likelihood of fraud is lower in two cases: when the audit committee is exclusively composed of independent members; and when these members have fewer managerial responsibilities. The article also concluded that the possibility of committing fraud is lower when the audit committee has been in service for a long period of time and the CEO is not the chair of the board of directors.

Subsequently, Inaam and Khamoussi (2016) examined the role of audit committee efficiency and audit quality in providing correct financial information. Using regression models for Tunisian corporations, the results showed that the independence, size, and meeting frequency of the audit committee are significant characteristics that improve its efficiency and quality. Consequently, these characteristics have a negative relationship with the falsification of financial statements. More specifically, the number of audit committee meetings is positively related to better audit quality. In this way, employees are less able to perpetrate fraud.

Moreover, auditors with a long service record affect the independence of audit committees, as the audit committee, which has a long-term relationship with the external auditors, creates a trust bond with the auditor.

Shortly afterwards, Nuhul et al. (2017) examined the effect of audit committee quality (members of the audit committee, audit committee meeting control, fiscal expertise of the audit committee) regarding the financial performance of companies listed on the Nigerian Stock Exchange (NSE). The results revealed a significantly positive effect between audit committee meetings, financial expertise, and financial performance. The audit committee would be more efficient, and the financial performance of companies would be improved, if the majority of the audit committee was characterised by financial expertise. They also concluded that the audit committee meetings have a significantly positive effect on the financial performance of corporations.

Finally, in a more recent study, Gebral et al. (2018) examined the impact that the audit committee and the internal audit have on the quality of a corporation's financial information. Based on a sample of 71 non-financial corporations, findings showed that the frequency of audit committee meetings and internal audits positively affect the quality of financial information in a corporation. Further, an audit committee that has more frequent meetings provides more efficient supervision of financial information. Similarly, internal audit is considered a significant mechanism in corporate governance for protecting the quality of financial information through the monitoring of risks, the evaluation of the internal audit, and the detection of potential errors.

In an everyday business routine, true independence between the audit committee and financial management is difficult to achieve or maintained. For example the mentoring and training responsibilities of an audit committee chairperson towards newly appointed financial officer posses as a familiarity threat (Grange et al., 2021).

2.7 Theoretical framework

The term "fraud" refers to the intentional falsification of corporate financial statements in order to create a false image in these statements (ACFH, 2017; Harrison, 2015). Fraud is also defined as an act that is intentionally committed and misleads through false financial statements, aiming to gain an unlawful advantage over one or more individuals (ISA 240). Furthermore, the ACFE defines fraud as the manipulation of information used in a widely published financial statement.

In all the above-mentioned definitions, the word "intentional" is used, as the falsification of financial statements can occur in two cases: fraud; or error. While fraud is intentional, error is unintentional. This distinction is, however, sometimes hard to make, as the audit is not designed to define the intention. The auditor focuses on the act that causes the falsification of financial statements, and not on its intention (unintended or intended). However, the internal auditor has to take into consideration the distinction between fraud and error while carrying out the procedures of the audit. In this way, the auditor can define whether it is a fraud or an error. Recognising this distinction relies on the auditor's experience and knowledge.

The internal audit is a set of procedures that corporate governance applies in order to protect its assets from waste, inefficiency, and fraud (Harrison, 2015). Additionally, the IIA defines internal audit as an independent and objective activity. This activity is of a stabilising and advisory nature, being designed to add value and to improve the function of an organisation. The internal audit can also assist the organisation in achieving its goals by adopting a systematic and professional approach for the evaluation and improvement of the risk management procedures as well as of the system regarding internal audit and corporate governance.

The objective of the external audit is to express to what extent the data in the financial statements are compliant with the authorities' requirements and rules regarding accounting standards.

The audit committee is considered a necessity in big corporations, since its function, in accordance with the institutionalised principles and regulations, is to defend shareholders' interests (Okaro and Okafor, 2010). According to the IIA (2013), the audit committee is responsible for supervising both the procedures of the internal audit and the implementation of the internal audit systems.

The primary responsibility of the audit committee is to supervise the integrity of financial statements, the efficiency of internal audits, and the monitoring of internal and external audits (Mohammad, 2015). The committee has to cooperate with the internal audit team in order to configure and implement the audit plan by mitigating the risks that threaten the smooth operation of the organisation. A second task of the committee is to ensure the independence of the internal audit unit in the context of efficient corporate governance. Furthermore, the committee has to supervise the external auditors and ensure that they maintain their independence and coordinate internal and external audit in order to avoid any overlapping of tasks. The responsibility of the committee is to inform the board of directors about all issues, including the potential conflicts that may emerge between members of the board and corporate interests. It is necessary that the internal and external auditors submit proposals or recommendations to the corporate governance concerning areas of high risk and confront any functional weaknesses that may have been detected.

3. Methodology

In the survey used in the current study, only listed corporations were selected, which are obliged to have a department for internal audit. The questions used were derived from the theoretical background, and the responses were gathered using a Likert-type scale. The questionnaire investigated whether there had been a falsification of financial statements in the corporation in which the respondents were working, and how this falsification had been committed. Subsequently, the respondents were asked to respond to a set of questions regarding the reasons for the falsification of financial statements in a corporation. The next section in the questionnaire referred to the education and training of external auditors regarding financial fraud. Finally, the efficiency of internal audits and the factors that affect the efficiency of an audit committee were examined.

4. Results

4.1 Descriptive statistics

The survey sample comprised 62 individuals, of which 48 (77.4%) were male and only 14 (22.6%) were female. The majority of the sample (51.6%) had more than 15 years of experience, and most possess a bachelor or master's degree.

There was a statistically significant difference of opinion between respondents with a doctoral degree and those with a bachelor or master's degree (p=0.044), well as graduates from institutes of vocational training (p=0.021). Individuals with a doctoral degree had a more positive attitude towards internal and external audits. It can be concluded that the positive attitude towards internal and external audits increased respectively with the educational background and age.

Table 1 Descriptive statistics

	None	Very mild	Mild	Moderate	Excessive
Reasons for falsification					
Pressure in the corporate environment	8.1%	29.0%	29.0%	22.6%	11.3%
Unrealistic goals	24.2%	25.8%	35.5%	12.9%	1.6%
Many responsibilities and obligations compared to income	11.3%	21.0%	37.1%	17.7%	12.9%
Inadequate audit system	37.7%	36.1%	21.3%	4.9%	0%
No extraordinary audits	19.4%	46.8%	19.4%	6.5%	8.1%
Deficiency in describing/distinguishing tasks	29.0%	29.0%	24.2%	9.7%	8.1%
Financial/family difficulties	26.7%	18.3%	30.0%	21.7%	3.3%
External auditor's competence					
Experienced audit staff	1.6%	4.8%	32.3%	45.2%	16.1%
Auditors are trained regarding topics of fraud detection	1.6%	12.9%	33.9%	41.9%	9.7%
Auditors are informed about the new provisions and laws	0%	8.1%	21.0%	45.2%	25.8%
Auditors participate in vocational seminars	6.5%	11.3%	32.3%	30.6%	19.4%
Auditors also have knowledge of psychology and statistics	23.0%	14.8%	31.1%	31.1%	0%
Ways of detecting fraud					
Internal audit	0.0%	3.3%	18.0%	54.1%	24.6%
External audit	0.0%	3.2%	17.7%	59.7%	19.4%
Employees' suspicions	6.5%	21.0%	45.2%	16.1%	11.3%
Audit committee	0.0%	4.8%	46.8%	41.9%	6.5%
Other way	32.4%	27.0%	29.7%	0.0%	10.8%
Efficiency of internal audit					
The internal auditor acts independently and impartially	1.6%	11.3%	29.0%	32.3%	25.8%
The relations between auditors and employees are not friendly	12.9%	22.6%	32.3%	27.4%	4.8%
The internal auditor has access to all data	0%	4.8%	14.5%	37.1%	43.5%
If you notice something, you will inform the manager responsible for internal audits	3.2%	6.5%	21.0%	48.4%	21.0%
There is excellent cooperation between internal and external auditors	1.6%	1,6%	18.0%	59.0%	19.7%
Efficiency of the audit committee					
The meeting frequency of the members of the audit committee	0%	6.5%	29.0%	46.8%	17.7%
The number of years served in audit committees	0%	14.5%	25.8%	45.2%	14.5%
Communication between the board of directors/internal and auditors/external auditors	0%	0%	14.5%	53.2%	32.3%
The independence of the corporate governance members	0%	3.2%	14.5%	30.6%	51.6%
The number of members in the audit committee	8.1%	14,5%	38.7%	27.4%	11.3%

Regarding the falsification level of financial statements, 41.9% of the sample stated that there has been no falsification of financial data in their corporate environment, 58.1% stated that there had been very mild or mild falsifications in their corporate environment, while none of the individuals thought that there had been an excessive level of falsification. Concerning the means of committing financial statement fraud, the most frequent ways highlighted were: improper valuations (29%); virtual revenues (12.9%); and timing differences (11.3%). The independent variables of the survey are presented in Table 1.

Concerning the reasons for which an individual may falsify financial statements, 39.9% highlighted pressure in the corporate environment. Furthermore, 37.7% responded that the corporation in which they work does not provide adequate audit systems, while 46.8% responded that there are no extraordinary audits. Finally, 60% of the respondents answered that there are no deficiencies in describing tasks (on either the “very mild” or “none” scale).

Regarding the efficiency of external audits, 61.3% thought that the corporation in which they work employs an experienced audit staff. A total of 51.6% stated that the auditors are moderately trained regarding topics of fraud detection. A high rate of 71% stated that auditors are moderately informed regarding the new provisions and laws. A total of 50% stated that external auditors participate in vocational seminars. Finally, 31.1% stated that external auditors have moderate knowledge of more fields, such as statistics and psychology.

Regarding the ways of detecting fraud, 88.7% thought that internal audits can help in detecting fraud. Similarly, 79.1% stated that external audits assist in fraud detection. Only 48.4% thought that fraud can be detected by the audit committee, while 45.2% stated that employees’ suspicions are “mildly” helpful in this regard.

Regarding the efficiency of internal audits, 58.1% of the sample stated that internal auditors act independently and impartially. In addition, 35.5% stated that there are no friendly relations between auditors and employees. A significant proportion (80.6%) stated that the internal auditor has moderate access to all the data required. Moreover, 69.4% stated that the information level of those responsible for internal audits plays a moderate role in cases where an employee notices and highlights possible transgression, errors or parts of the process that require immediate improvement. Finally, 78.7% “moderately” supported that the cooperation between internal and external auditor is excellent.

Finally, regarding the efficiency of the audit committee, 64.5% thought that the meeting frequency of the members of the audit committee affects efficiency.

Moreover, 85.8% stated that communication between the board of directors, internal auditors, and external auditors “moderately” affects the efficiency of the audit committee. Finally, the independence of the audit committee in relation to corporate governance and the number of members were considered significant factors for the efficiency of the audit committee.

4.2 Factor analysis

In order to check reliability, Cronbach’s alpha was used. Table 2 shows that the factors ranged from 0.7 to over 0.8, thus demonstrating reliability. Subsequently, factor analysis was performed (see Table 3).

The factors extracted can be categorised as “Reasons for falsification”, “External auditor’s competence”, and “Ways of detecting fraud”.

Subsequently, two factors were revealed highlighted regarding fraud detection. Regarding the efficiency of the internal audit, two factors were also revealed: the “information level of the internal auditor” (documents, cooperation, informal information) and the “level of friendship between auditors and employees”. The analysis also underlined the importance of the factor “efficiency of the audit committee”. Finally, the significance of internal audit in detecting fraud is underlined based on the responses to this questionnaire.

Table 2 Cronbach’s alpha values for the questionnaire

Questionnaire section	Cronbach’s alpha
Reasons for falsification	0.821
External auditor’s competence	0.885
Way to detect fraud	0.693
Efficiency of internal auditor	0.697
Efficiency of audit committee	0.648

Table 3 Factor analysis

Factor	Factor loading
Reasons for falsification	
Pressure in corporate environment	0.802
Inadequate audit system	0.802
Financial/family difficulties	0.785

Deficiency in describing/distinguishing tasks	0.769
Unrealistic goals in corporation	0.681
Many responsibilities and obligations compared to income	0.612
No extraordinary audits	0.415
Auditor's competence	
Auditor's educational courses regarding fraud detection	0.813
Participation in vocational seminars	0.891
Auditor should be aware of new provisions/laws	0.813
Experienced audit staff	0.720
Ways of detecting fraud A	
Employee's suspicion	0.859
External audit	0.836
Another way	0.655
Audit committee	0.515
Ways of detecting fraud B	
Internal audit	0.797
Efficiency of internal audit	
Access of the internal auditor to all the data	0.892
Cooperation between internal and external auditors	0.829
Informing the manager responsible for internal audit in case of realising something	0.758
Efficiency of internal audit A	
Friendship between auditors and employees	0.996
Efficiency of audit committee B	
Level of independence from corporate governance	0.861
Level of communication between board of directors, internal auditors, and external auditors	0.638
Number of the members in the audit committee	0.560
Number of years served in the audit committee	0.487

4.3 Correlation analysis

Initially, the study measures how an external auditor's competence influences the degree of falsification found in the financial statements. The results revealed that the falsification level of financial statements has a statistically significantly negative correlation, which can be characterised as mild, with the experience of audit staff (rho=–0.410, p=0.001<0.05) and the level of participation in educational courses (rho=–0.399, p=0.001<0.05). There is also a negative correlation, which can be characterised as moderate, with the level of vocational training of auditors in relation to detecting fraud (rho=–0.530, p=0.000<0.05). A negative but very mild correlation was also revealed between the knowledge level of auditors regarding knowledge on psychology (on psychological factors utilized in frauds) and statistics as control aids (rho=–0.410, p=0.001<0.05).

Subsequently, the way in which the efficiency of internal auditor affects the falsification level of financial statements was examined. The results showed that the falsification level of financial statements has a significantly negative correlation, which can be characterised as mild, with the independence level of the internal auditor (rho=–0.470, p=0.000<0.05). There is also a negative correlation with the friendship level between auditors and employees (rho=–0.012, p=0.012<0.05), while a negative and strong correlation was found between the information level of those responsible for the internal audit (in this case, an employee suspecting irregularities or transgressions) (rho=–0.508, p=0.000<0.05) and the level of cooperation between internal and external auditors (rho=–0.657, p=0.000<0.05).

Finally, no statistically significant correlation was found between the efficiency of the audit committee and the falsification level of financial statements.

4.4 Regression analysis

Linear regression analysis revealed significant results for the variables concerning the reasons for falsification, the competence of external auditors, and the efficiency of internal auditors and of audit committees.

Initially, a linear model was created, with the final model including the following variables: pressure in the corporate environment; unrealistic corporate goals; competence of external auditors (new continuous variable); efficiency of internal auditors (new continuous variable); and efficiency of audit committees (new continuous variable). The results of the fourth and final model are presented in Table 4.

The final model demonstrates that 95.8% of the sample is statistically significant (F=126,532, p=0.000<0.05) and includes three variables: pressure in the corporate environment; degree of achieving corporate goals; and competence of external auditors. These three variables have a statistically significant impact on the model's precision.

Table 4 Fourth model

	Unstandardised coefficients		Standardised coefficients		
Model	**B**	**Std. Error**	**Beta**	***t***	**Sig.**
Pressure in corporate environment	,268	,066	,478	4.056	,000
The goals of the corporation are unrealistic	,189	,076	,277	2.488	,016
External auditor's competence	,228	,099	,489	2.314	,024

5. Discussion

According to the research results, 41.9% of the sample stated that there had been no instances of falsifying financial statements in their corporate environment, while 58.1% stated that the corporation had committed falsification on a very mild/mild scale, primarily through two means: improper valuations; and virtual revenues. These results are in accordance with the results of previous studies conducted by Zagera et al. (2016) and Deloitte (2009). However, the results contradict those of Ghazali et al. (2014) and Ziegenfuss (1996). In these cases, the most frequent ways of falsifying financial statements were the misappropriation of capital and false allegations. The findings of the present research reinforce the importance of audits. However, incidences of improper valuations require not only strengthening the audit system and the controls used but also utilising modern technology for reducing incidences of mismanagement. This option should be enforced in cases where public authorities are aiming to achieve and maintain the level of sophistication required. This in turn implies the provision of training for public servants and their respective state agencies.

Concerning the reasons behind misrepresentation, the pressure in a corporate environment with low income is more significant in comparison to pressure in a corporate environment with high income (33.9% vs 30.6%). The inadequate audit system is also another minor cause. In previous studies, the main reasons were found to be bad management techniques, together with financial pressure (Zulkurnai et al., 2006), improper audits, and the auditors feeling unjustly treated or underestimated in their work environment (Reynolds, 2018). This new perspective demonstrates the possible evolution in an auditor's line of work. However, knowledge management and emotional corporate maturity are needed to help in the application of audit techniques in a more proactive and efficient way in order to avoid burnout and psychological stress among employees and management.

Moreover, internal and external audits play a vital role in detecting fraud (78.7% and 79.1%, respectively). According to these results, internal audit is an important way of detecting fraud. Thus, the preservation of the internal audit procedures within the organisational framework is a highly efficient option, in combination with the external audit or other control mechanisms for fraud detection. These results are in accordance with those of Ghazali et al. (2014) and Coram et al. (2008). Furthermore, it was observed that the educational background of an individual has a positive impact on her/his belief concerning internal and external audits as ways of detecting fraud. This was expected since, in socioeconomic terms, more corporations and their employees are in touch with world markets and aware of their regulations.

In this research, the efficiency of an external audit was found to depend mainly on the awareness of new provisions and laws, educational background, and several years' experience. Concerning the efficiency of internal audit, it seems that this depends on cooperation between internal and external auditors, as well as on the availability of corporate data and information. This result contradicts that of Rudhani et al (2017), who concluded that good communication between internal and external auditors of little significance. On the other hand, Kamau et al. (2014) concluded that the most important factor is the independence of the internal audit. These results could differ depending on geographical factors and should be further investigated. However, is indisputable that internal and external auditors must work cooperatively in order to ensure the disclosure and accuracy of information.

Finally, it was revealed that the most significant factors affecting the efficiency of the audit committee are communication between the board of directors and internal and external auditors, as well as appropriate levels of independence for members of the audit committee from the corporate governance structure. These results are in line with those of Persons (2015) and Inaam and Khamoussi (2016), while they contradict those of Chukwunedu et al. (2014), who found that the efficiency of the audit committee is mainly affected by educational background, service, and number of members, and not by audit committee meetings with external and internal auditors.

However, an interesting finding from Bitter et al., (2021) demonstrates that communication also includes statements of accounting and non-accounting experts and in particular the written statements in financial statement disclosures. The research was based on the lack of rational basis standard directly incorporated into accounting or auditing literature. The authors argue the significance of accounting guidance updates towards sample language incorporated into audit standards. This would protect the auditors, their client, but also enhance the quality of the audit and the information provided to users of financial statements and registration statements.

On the other hand, debates regarding the importance of meetings and cooperation have been a controversial issue; the communication of information is vital on a variety of corporate levels. Balancing information, managerial goals, and working conditions is an issue of critical importance, considering the changes in technology and the availability of information. Furthermore, following worldwide incidents affecting welfare and health issues, it is understandable that corporations have had to change their immediate goals, as well as the procedures for achieving these goals. Although audit and finance (from their respective perspectives) allow corporations to disclose their financial position, the external environment of a corporation can change, leading to unpredictability by traditional management standards. Therefore, it is possible that further investigation is needed, especially regarding the utilisation of risk management and the latter's possible interaction with auditing.

6. Conclusion

Evidently, the training and experience of auditors are key in reducing the incidence of financial statements falsifications and the detection of attempted fraud. On the other hand, although mild, the relationship among work environment factors and their effect on the auditors' quality of work is important. However, the mild negative correlation between falsification and an internal auditor's independence highlights an important issue that should be investigated further. Cases of intercompany relationships affecting and audit's efficiency are expected. However, regarding the audit committee, few results of significance could be found regarding auditors' difficulty of performing freely. The three most significant variables affecting falsification and the audit's efficiency were found to be: pressure from the corporate environment; unrealistic corporate goals; and external auditors' competence.

7. Future research

The factors revealed in this research raise some interesting questions regarding management and the goals it sets. Further investigation is required on the effect that the pressure imposed on auditors has on the quality and efficiency of audits, as well as financial statement misrepresentation. The origin of these factors could open up new research affecting broader concepts than managerial decisions.

8. Research limitations

Although highly trained and experienced respondents expressed their point of view, the results demonstrate moderation in their answers. It is possible that further investigations using human resources as a basis for a future approach may prove to be informative regarding intercompany relationships and management and audit efficiency.

9. Research implications (academic and market-oriented)

This research has highlighted an aspect of audit that has not been sufficiently investigated. The association of auditors with management and colleagues, as well as the possibly unrealistic goals that auditors are expected to achieve, can create a system with seemingly overlapping areas. Dealing with the human factor in business is a sensitive issue, especially given the constant evolution of technology and the risk of cyber-attacks. The preparedness of a company is based on the ability and ethics of all its employees, regardless of position. This research opens up topics for further discussion in the field of applied ethics and optimal cooperation.

References

1. Association of Certified Fraud Examiners (ACFE), (2009) 'Common Financial Statement Frauds', Brisbane Chapter 71. [Online] Available at:

https://brisbaneacfe.org/library/third-party-fraud/common-financial-statement-frauds/ (Accessed 21st of August, 2019).

2. Bierstaker, J., Hunton, J., and Thibodeau, J. (2012) 'Does Fraud Training Help Auditors Identify Fraud Risk Factors?', In *Donna Bobek Schmitt (Eds.) Advances in Accounting Behavioral Research*, Advances in Accounting Behavioral Research, Vol. 15, pp.85-100 [online] http://www.emeraldinsight.com/doi/abs/10.1108/S1475-1488%282012%290000015008 (Accessed 21st of August, 2019).
3. Bitter, M., Chambers, V., Elzweig, B., and Ikram, W., (2021) 'The Impact of the Supreme Court's Omnicare Decision on Audited Financial Statement Disclosure', *Journal of Accounting, Ethics and Public Policy*, Vol. 22, No. 1, pp. 1-26
4. Chukwunedu, O. S., Okafor, G.O., and Azubuike, O. O. (2014) 'Factors Affecting Audit Committee Quality in Nigeria', *International Journal of Academic Research in Business and Social Sciences*, Vol. 4, No. 12, pp.10 [online] https://www.researchgate.net/publication/270625577_Factors_Affecting_Audit_Committee_Quality_in_Nigeria (Accessed 21st of August, 2019) .
5. Chukwunedu, O. S., and Okafor, G. O. (2010) 'Repositioning the Audit Committee as an Effective Watchdog in Corporate Governance in Nigeria', *Journal of the Management Sciences*, Vol. 10, pp. 21 [online] https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1964905 (Accessed 21st of August, 2019) .
6. Chun, C. (1997) 'On the functions and objectives of internal audit and their underlying conditions', *Managerial Auditing Journal*, Vol. 12, No. 4/5, pp. 247-250 [online] https://www.emeraldinsight.com/doi/abs/10.1108/02686909710173966?fullSc=1&journalCode=maj (Accessed 21st of August, 2019) .
7. Coram, P., Ferguson, C., and Moroney, R. (2008) 'Internal Audit, alternative internal audit structures and the level of misappropriation of assets fraud', *Accounting and Finance*, Vol. 48, No. 4, pp. 543-559 [online] https://econpapers.repec.org/article/blaacctfi/v_3a48_3ay_3a2008_3ai_3a4_3ap_3a543-559.htm (Accessed 21st of August, 2019) .

8. Deloitte, (2009) 'Ten things about financial statement fraud-third edition', A review of SEC enforcement releases 2000-2008 [online]
9. http://www.corporatecompliance.org/Portals/1/Users/169/29/60329/10%20Things%20about%20financial%20statement%20fraud.pdf (Accessed 21st of August, 2019).
10. El-Bannany, M., Dehghan, A.H., and Khedr, A.M., (2021) 'Prediction of Financial Statement Fraud using Machine Learning Techniques in UAE', *In 2021 18th International Multi-Conference on Systems*, Signals & Devices (SSD), IEEE, March, pp. 649-654
11. Erdoğan, M. and Erdoğan, E.O., (2020) 'Financial Statement Manipulation: A Beneish Model Application', In Grima, S., Boztepe, E. and Baldacchino, P.J. (Ed.) C*ontemporary Issues in Audit Management and Forensic Accounting (Contemporary Studies in Economic and Financial Analysis*, Vol. 102), Emerald Publishing Limited, Bingley, pp. 173-188. [Online] Available at: https://doi.org/10.1108/S1569-375920200000102014 (Accessed 13th of November, 2019).
12. Financial Reporting Council (FRC), (2014) 'Audit Quality Thematic Review, Fraud risks and regulations' [online] https://frc.org.uk/getattachment/ab5168f8-b735-4057-b180-eb6c10584e0e/FRC-AQR_Fraud-Risk-and-Laws-and-regulations-Jan-2014.pdf (Accessed 21st of August, 2019).
13. Ghazali, M. Z., Rahim, M. S., Azharudin, A., and Shamharir, A. (2014) 'A preliminary Study of Fraud Prevention and Detraction at the State and Local Government Entities in Malaysia', *Procedia-Social and Behavioral Sciences*, Vol. 164, pp. 437-444 [online] https://www.sciencedirect.com/science/article/pii/S1877042814059205 (Accessed 21st of August, 2019) .
14. Grange, M.L., Ackers, B., and Odendaal, E., (2021) 'The impact of the characteristics of audit committee members on audit committee effectiveness', *Global Business and Economics Review*, Vol. 24, No 4, pp. 409-434
15. Hammersley, S. (2011) 'A Review and Model o Auditor Judgments Fraud-Related Planning Tasks', *Auditing: A Journal of Practice Z &Theory*, Vol. 30,No. 4, pp. 101-128 [online]

http://aaajournals.org/doi/pdf/10.2308/ajpt-10145 (Accessed 21 August 2009).

16. Harrison, W., Horngren, Ch., Thomas, C. and Suwardy T. (2015) 'Financial Accounting', 9th Edition, Pearson, Global Edition.
17. Inaam, Z. and Khamoussi, H. (2016) 'Audit committee effectiveness, audit quality and earnings management: a meta-analysis', *International Journal of Law and Management*, Vol. 58, No. 2, pp. 179-196 [online] https://www.emeraldinsight.com/doi/abs/10.1108/IJLMA-01-2015-0006 (Accessed 21st of August, 2019).

    Kamau, C., Nduati, S., and Mutiso, A. (2014) 'Exploring internal auditor independence motivators: Kenyan perspective', *International Journal of Economics, Finance and Management Sciences*, Vol. 2, pp. 132-137 [online] http://article.sciencepublishinggroup.com/pdf/10.11648.j.ijefm.20140202.13.pdf (Accessed 21st of August, 2019) .
18. Kassem, R. and Higson, A. W. (2016) 'External Auditors and Corporate Corruption: Implications for External Audit Regulators', *Current issues in Auditing*, Vol. 10, No. 1, pp. P1-P10 [online] http://aaajournals.org/doi/pdf/10.2308/ciia-51391?code=aaan-site (Accessed 21st of August, 2019) .
19. Krambia-Kapardis, M. (2002) 'A fraud detection model: A must for auditors', *Journal of Financial Regulation and Compliance*, Vol. 10, No 3, pp. 266-278 [online] https://www.researchgate.net/publication/30499851_A_fraud_detection_model_A_must_for_auditors (Accessed 21st of August, 2019).
20. Lois, P., Drogalas, G., Karagiorgos A., Tsikalakis, K., (2019) 'The Contribution of Internal audit in the Digital era. Opportunities, Risks and Challenges', *EuroMed Journal of Business*, Vol. 21, No. 4, pp. 645-662 [Online] Available at: https://doi.org/10.1108/CG-08-2020-0316 (Accessed: 13th of November, 2021)
21. Lundelius, C., (2011) 'Detecting financial fraud in the world of IFRS', AICPA Store. [online] https://www.aicpastore.com/Content/media/PRODUCER_CONTENT/Newsletters/Articles_2011/CorpFin/Financial_Fraud.jsp

22. Mohammad, A.J. (2015) 'Audit Committee Characteristics Improving Financial Reporting Quality among Malaysian Listed Company', *European Journal of Social Science Review*, Vol. 1, No. 2, pp. 18-28
23. Mustapha, M., and Lai, S. J., (2017) 'Information Technology in Audit Processes: An Empirical Evidence from Malaysian Audit Firms', *International Review of Management and Marketing*, Vol. 7, No. 2, pp. 53-59
24. Nuhu, M. S., Umaru, S. Y., Salisu, S. (2017) 'Internal Monitoring Mechanisms and Financial Fraud Prevention: Perceptions of Listed Deposit Money Banks in Nigeria', *International Journal of Innovative Finance and Economics Research*, Vol. 5, No. 3, pp. 69-80 [online] http://seahipaj.org/journals-ci/sept-2017/IJIFER/full/IJIFER-S-7-2017.pdf (Accessed 21st of August, 2019).
25. Ocak, M., and Kurt, E.S., (2019) 'Does auditor education affect audit opinion? An empirical study of Turkish listed firms', *Global Business and Economics Review*, Vol. 21, No 5, pp. 646-665
26. Othman, R., Aris, N. A., Mardziyah, A., Zainan, N., and Amin, N. M. (2015) 'Fraud detection and prevention methods in the Malaysian public sector: Accountants' and internal auditors' perceptions', *Procedia Economics and Finance*, No. 28, pp. 59-67
27. Persons, O.S. (2005) 'The Relation Between the New Corporate Governance Rules and the Likelihood of financial Statement fraud', *Review on Accounting and Finance*, Vol. 4, No. 2, pp. 125-148 [online] http://www.emeraldinsight.com/doi/abs/10.1108/eb043426 (Accessed 21st of August, 2019) .
28. Razali, M., and Arshad, R. (2014) 'Disclosure o Corporate Governance Structure and the Likelihood of Fraudulent Financial Reporting', *Procedia-Social and Behavioral Sciences*, No. 145, pp. 243-253 [online] https://www.sciencedirect.com/science/article/pii/S1877042814038907 (Accessed 21st of August, 2019) .
29. Reynolds, A., (2018) 'The Top 3 Reasons Employees Commit Expense Fraud and How to Put a Stop to it', *HR Technologist, Expense Management*, Vol. 2018, No. Feb 05 [online]

https://www.hrtechnologist.com/articles/expense-management/the-top-three-reasons-people-commit-expense-fraud-and-how-to-put-a-stop-to-it/ (Accessed 21st of August, 2019) .

30. Rezaee, Z. (2002) 'Financial Statement Fraud: Prevention and Detection', John Wiley and Sons, Inc, New York.
31. Rudhani, L. H., Vokshi, N. B., and Hashani, S. (2017) 'Factors Contributing to the Effectiveness of Internal Audit in the Public Sector in Kosovo', *Journal of Accounting Finance and Auditing Studies*, Vol. 3, No. 4, pp. 91-108 [online] https://www.researchgate.net/publication/320311027_Factors_Contributing_to_the_Effectiveness_of_Internal_Audit_Case_Study_of_Internal_Audit_in_the_Public_Sector_in_Kosovo (Accessed 21st of August, 2019) .
32. Shree B., (2020) 'A study on consequences of financial statement fraud (fsf) from a developing country perspective', *Malaya Journal of Matematik*, Vol. S, No. 2, pp. 1020-1022 [Online] Available at https://doi.org/10.26637/MJM0S20/0256 (Accessed 13th of November, 2019).
33. Syahria, R., (2019) 'Detecting Financial Statement Fraud Using Fraud Diamond (A Study on Banking Companies Listed On the Indonesia Stock Exchange Period 2012-2016)', *Asia Pacific Fraud Journal,* Vol. 4, No.2, pp. 183-190.
34. The Institute of Internal Auditors. (2013) 'Internal Auditing Standards', IIA. [online] https://na.theiia.org/standards-guidance/Public%20Documents/IPPF%202013%20English.pdf (Accessed 21st of August, 2019).
35. Uwuigbe, O.R., Olorunshe, O., Uwuigbe, U., Ozordi, E., Asiriuwa, O., Asaolu, T., and Erin, O., (2019) 'Corporate governance and financial statement fraud among listed firms in Nigeria', *IOP conference series: earth and environmental science*, IOP Publishing, Vol. 331, No. 1, pp. 012055
36. Zager, L., Malis, S., and Novak, A. (2016) 'The role and Responsibility of Auditors in Prevention and Detection of Fraudulent Financial Reporting', *Procedia Economics and Finance*, No. 39, pp. 693-700 [online]

https://ac.els-cdn.com/S221256711630291X/1-s2.0-S221256711630291X-main.pdf?_tid=9548bd92-3c77-452a-8b0e-b2a418752db4&acdnat=1520184528_e07da7436b363e3a6f21de539dd239e2 (Accessed 21st of August 2019).

37. Ziegenfuss, D. (1996) ‘State and local government fraud survey for 1995’, *Managerial Auditing Journal,* Vol. 11, No. 9, pp.50-55 [online] https://www.emeraldinsight.com/doi/abs/10.1108/02686909610150395 (Accessed 21st of August 2019).