

Internal Audit Interactive Function with Corporate Governance Committees in Fraud Risk Management

Ugwu Ikechukwu Virginus Ph.D¹ and Nwoko Cyprian Nnamdi Joshua²

¹Dept of Accountancy Chukwuemeka Odumegwu Ojukwu University (COOU), Igbariam Anambra State, Nigeria,
Gmail: virginusugwu418@gmail.com

²Dept of Entrepreneurship, Madonna University, Okija Campus, Anambra State, Nigeria

Abstract: *This study focused on interactive function of internal audit with corporate governance committees in fraud risk management. We identified four variables of internal audit interactive committee function as: board, audit, remunerations and risk management committees. To achieve these, a population made of 668 internal auditors, fraud auditors and accountant was sourced using a purposefully selected 15 banks; while Taro Yamane's formulae gave 400 sample sizes for the study. Likert Scale was used to analyze the responses; while Descriptive; and ANOVA parametric analysis were employed to test the four posited hypotheses. The four tested null hypotheses were rejected and the alternate hypotheses were accepted. The F-Statistic results show that 0.55 (55%) of the four internal audits interactive function variables, jointly explained the dependent variable (fraud risk). Further result shows that both the P values of the individual outcome of the independent variables are: 0.720, 0.730, 0.970, 0.740 and the overall P value, is 0.79 and they are significant at 5% level. Finally, the study findings conclude that the internal audit interactive function in fraud risk management: with board committee; audit committee; remuneration committee; and risk management committee, significantly impacts fraud risk. This provides useful information for policy makers or regulators in improving the corporate fraud risk management policies in collaboration with internal audit function.*

Keywords: Internal Audit Function, Risk management, Audit Committee, Remuneration, Board Committee.

Background of the study

Internal audit function in fraud risk management is a critical part of the corporate governance within an organization. Corporate governance is an effective tool in risk management. Corporate governance includes those oversight activities undertaken by the board of directors and audit committee to ensure that there is effective risk management and the integrity of the financial reporting process (Public Oversight Board, 1993). Three monitoring mechanisms have been identified in the corporate governance literature. These are external auditing, internal auditing and directorships, (Anderson, Francis & Stokes, 1993; Blue Ribbon Committee, 1999), as well as the audit committee (Institute of Internal Auditor (11A, 2004; Coram, Ferguson & Moroney, 2011).

Kulkani and Maniam, (2014) stated that corporate governance involvement in management affects corporations as well as countries in different ways such as the firm's access to outside financing increases, which leads to more investment, better businesses growth opportunities and employment. This makes capital cost to decreased and ultimately the firms are valued at higher cost. Proper structured corporate governance reduces financial crises. If companies risk management is not structured and managed well it can cause crises, a consequent devastating effects in any countries economy. The views of Claessens and Yurtoglu, (2013) are that if corporate governance practices are followed properly this creates better rapport with the stakeholders. In risk management, corporate governance provides property protection and safe modes of ownership registration, it automatically affects the firm's capital mobilization. For any firm to receive funds from the market effectively, the management has to be consistent and transparent in disclosing the business functions and risk control strategies and leverages. (L. Som, 2007) has the opinion that for firms to effectively handle the capital received, they should have proper resource allocation, authority distribution, and well-planned fraud risk management. Evidences from literatures for year have shown that fraudulent behavior of companies, have caused countries to go through financial crisis (S. L. Gillan, 2006). Several other means have been employed to curb fraud activities. Therefore internal audit interaction with corporate governance board committee structure hence became a critical issue for all the countries around the world.

A board committee is a small working group identified by the board, consisting of board members, for the purpose of supporting the boards work. Committees are generally formed to perform some expert work. Members of the committee are to have expertise in the specified field while in the corporate governance it refers to committee made up of members of the board with special set of duties. This study focuses on the internal audit interaction with the corporate governance board committees in fraud risk management. The four committees most often appointed by companies are the audit committee, risk management committee, stakeholder committee and nomination or remuneration committee

Statement of Problems

Lack of Fraud risk management and related problems have caused instability in the Nigerian economy resulting to a high mortality rate of business organizations and the consequent losses of revenue, huge financial losses to business organizations and their

customers, depletion of shareholders funds and capital base as well as loss of confidence in business investment (Hamilton & Gabriel, 2012). The PwC global economic crime survey of 2018 found that half of the 7,200 companies they surveyed had experienced fraud of some kind or another. Thus, fraud risk management has become the most intractable problems of modern day business not only in Nigeria but also globally, (Ugwu, I. V, 2020). Public concern is growing by the day and management vigilance is not improving even with the aid of computerization. The necessity for fraud risk management has come up based on the changes on the strategic corporate/business operating environment and the expansion in transaction volumes that have as well affected the methods corporations approach and handle risk, (WIPO, 2010). Every business increase has a corresponding increase of uncertainties that drive corporate managements to desire a better structured and systematic way to handle risks. It is through internal audit involvement in fraud risk management that corporations address the increasing demand of the modern business operating environment and the consequent fraud risks by endeavoring to address these risks whenever they are found, (Ugwu, I. V, 2020). Many literatures like: (Omar & Baker 2012; Badara & Saiden, 2014; Salamu & Agbeja, 2007; Endaya & Hanefah; Thenfanis., Drogalis & Giovani, 2011; Dominic & Nonna, 2011; Intakhan & Ussahawanitchakit, 2010; Feizizadeh, 2012; Farcane, Blidset & Popa, 2009; Mui 2010; Stribu et al, 2009) have dealt on fraud risk management, control, detection in firms in both developed and undeveloped economies, but to the best of our search, this study did not pin down any specific work on internal audit interactive function with corporate governance board committees on fraud risk management. The study, thus desires to seek whether the interaction of internal audit function with the corporate governance board committees impacts fraud risks in Nigeria business settings.

The main objective of this study is to determine whether internal audit interacting function with corporate governance board committees impacts fraud risk function in Nigeria.

The study specific objectives are to determine whether internal audit interactive function with: Risk management committee; remunerations committee; Audit committee; and Stakeholder committee impacts fraud risk management in Nigeria.

Based on these objectives, the study questions are raised. Does internal audit interactive function with: Risk management committee; remuneration committee; Audit committee; and Board committee impacts fraud risk management?

Our hypotheses are stated thus, Internal audit interactive function with: Risk management committee; Audit committee; Remuneration committee; and Board committee, are not statistically significant in fraud risk management.

Literature Reviews

Concept of Internal Audit Function

The role of internal audit is to provide independent assurance depicting that an organisation's risk management, governance and internal control processes are operating effectively. The Institute of Internal Auditors (IIA) internal auditing is defined as an independent, objective assurance and consulting activity designed to add value and improve organization's operations. It helps the organization accomplish its objectives by bringing systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes. This definition includes whether existing processes and procedures comply with predetermined rules and regulations or deviate in any way from this standard (Kagermann et al., 2008) It also works as a method of independent and objective validation, and increases the value and improves the operation and performance of the organization, but also facilitates the effects of related processes to achieve the organization's goals (Kanellou & Spathis, 2011). Internal audit examines the organization and functioning of accounting systems and related internal controls, credibility of financial and operational information, it evaluates the economy, efficiency and effectiveness of business operations and control, application of policies, plans and procedures and conducts special checks. The profession of auditing is a rich resource for enterprises because the audit activity monitors the adequacy and effectiveness of management's control framework and contributes to the integrity of corporate governance, risk evaluation, and financial, operating and IT systems (Burnaby & Hass, 2009). Internal audit function includes: corporate governance, risk management and control. To make sure to keep the basic objectives and responsibilities of internal auditor and the whole process of auditing, IIA has developed International Standards for the Professional Practice of Internal Auditing (Standards) for each part of internal audit process. As the most important concepts that make a framework for internal audit.

Internal Audit Interactive Function

Internal audit interactive function is where the audit function goes with the other key corporate governance players within the organization (i.e risk management, remuneration committee, nomination committee, board of directors, senior management, audit committee, Chief audit executive CAE, External auditors), on the issue of fraud risk control. Within this, the internal audit function continues to have an internal controls focus which shifts its functions to evolve from compliance to a more interactive function (Bou-Raad, 2000; Ernst & Young, 2008). The institute of the Internal Auditors (IIA) includes that every internal auditor (IA) who belong to IIA members have to adhere to the mandatory guidance within International Professional Practice Framework (IPPF), IIA's Code of ethics and the International Standard for the Professional Practice of Internal Auditors (ISPPA) on relation with corporate governance for effective function in fraud risk control.

Internal audit involvement correlates with more effective management of organizations fraud risk. This reveals a correlation between the involvement of internal audit function and overall business performance in response to fraud risk, digital innovation, financial challenges, culture and compensation change. Interactive function also includes the role and responsibility of the audit board, management and committee as a primary responsibility participant in this process. The internal audit interactive function provides support and security to the board of directors and management to ensure that the likelihood of fraud is minimized.

The purpose why interactive function is included in fraud risk control was made known by (Dardevic & Dukic, 2015), they said that all employees in the organization regardless of their hierarchical level as well as persons outside the management can commit fraud. In other words, sometimes fraud is committed to preserve workplace, achieve a prestigious position and advance in career. Therefore, fraud control should also involve senior management, Chief audit executive and external auditors in an organization. Some of these fraud scenarios might be installed by a proper establishment of an adequate interactive internal audit fraud risk control processes.

Concept of Corporate Governance

It was not until 1980s that the theme “corporate governance” came under focus. This vividly describes the principles of directing and controlling of business and management of an organization (Bozec 2005). Corporate governance is defined by (Donovan, 2003) as a system of covering the policies and process which manages the shareholders and other stakeholders needs by their management activities with well performing of business, integrity and objective. It is also defined as the legal, moral and ethical values of an organization that is capable of protecting the interest of the shareholders and stakeholders in any organizations. The simplest and most concise definition of corporate governance was provided by the Cadbury Report in 1992, which defined it as the system by which companies are directed and controlled. This definition provides an understanding of the nature of corporate governance and the vital role that leaders of organisations have to play in establishing effective practices. The leaders of the corporations are the directors, who decide the long-term strategy of the company in order to serve the best interests of the owners (members or shareholders) and, more broadly, stakeholders, such as customers, suppliers, long-term debtors, the community and regulators. One of the main aim of corporate governance is to protect the investing interest of the shareholders and other stakeholders of a firm. Ahmed, Alam, Jafar & Zaman, (2008) stated that the concept of corporate governance can be applied especially to the listed companies where the major portion of the shareholders cannot participate in management functions. Although this concept can also be applied to other types of organizations like firms with very few owners, partner-owned firms and also privately owned organizations where ownership are transferred through inheritance generation after generation. Another aspect is to recognise that effective corporate governance relies to some extent on compliance with laws, but being fully compliant does not necessarily mean that a company is adopting sound corporate governance practices.

Board Committees Interactions

The board's role is to set the risk appetite of the organisation and then to ensure it has a risk management framework to identify and manage risk on an ongoing basis. All organisations must take risks to create value. The board is ultimately responsible for an organisation's risk management framework. Literature on board committees focuses on stakeholder rather than shareholder value. But, the agency and resource-dependence theories, (Hillman and Dalziel, 2003) distinguish between the monitoring and resource-provision functions of the board of directors. The former consists in controlling and the provision of checks and balances to the management by non-executive directors. The latter signifies the mechanism of provision of resources to the focal company through external professional networks of board members. Another classification of board functions indicates other things as, the service and strategy-consulting/making roles (Johnson et al., 1996; Minichilli et al., 2009; Zahra and Pearce, 1989).

Harvard Law School Forum on Corporate Governance, (2018) said that directors through their risk oversight role, satisfy themselves that the risk management policies and procedures designed and implemented by the company's senior executives and risk managers are consistent with the company's strategy and risk appetite; that these policies and procedures are functioning as directed; and that necessary steps are taken to foster behaviors and judgments about risk and recognizes and appropriately escalates and addresses risk-taking beyond the company's determined risk appetite. Through its oversight role, the board can send a message to management and employees that comprehensive risk management is not an impediment to the operation of business, nor a mere supplement to a firm's overall compliance program. Instead, it is an integral component of strategy, culture and business operations, (Deloitte, 2018). In a survey carried out by (Deloitte, 2018) on board members confirmed that a wide range of risk topics regularly fill boardroom agendas; while, a 2017 PricewaterhouseCoopers' survey of directors reported that 83% of directors believe there is a clear allocation of risk oversight responsibilities among the board and its committees, but nearly 20% of the directors surveyed suggested clarity about the allocation of these responsibilities could still be improved. The board should seek to promote an effective, on-going risk dialogue with management, design the right relationships between the board and its standing committees as to risk oversight and ensure appropriate resources support risk management systems. By (Harvard Law School Forum on Corporate Governance, 2018)

In the US, in 2002, the Sarbanes-Oxley Act (SOX) mandated that firms have compensation and governance committees. It also required that the audit, compensation, and governance committees be composed solely of outside directors. These three committees are considered the required committees. The audit committee oversees the integrity and compliance of the firm's financial reporting. The compensation committee focuses on human resource policies and procedures, most notably the compensation of top executives. The governance committee recommends new candidates for the board and other top executive positions and sets general governance procedures; directors are usually assigned to committees at the recommendation of the governance committee (De Kluyver, 2009).

In Nigeria it is required to have: nomination and governance committee; Remuneration committee; Audit committee; and Risk management committee. In other cases, the board may implement diversity or corporate social responsibility committees to signal commitment to social issues and lead efforts in those directions, (Paine et al., 2014). There are varied practices on how boards and committees and internal audit interact. A committee is empowered to directly set firm policy, inform the board via informal knowledge sharing or formal reports, and propose actions to be executed by the full board (De Kluyver, 2009). EY find that 15% of the boards reporting have their governance committees took accountability for the company's reputation, non-financial risks, enterprise management risks, business continuity plans and safety strategies. Small percentages of governance committees are starting to get involved in shareholder engagement and risk management, (Kaczmarek & Nyuur, 2010; Carcello & Neal, 2000, 2003; Conyon & Peck, 1998; Daily et al., 1998; Eminent & Guedri, 2010; Ruigrok et al., 2006; Spira, 1998, 2003; Turley & Zaman, 2004).

Interaction with Corporate Governance Board

It is the duty of the board of directors to ensure that senior management establishes and maintain an adequate, effective and efficient internal system within the organization. The board should also support and work with the internal audit function to discharge their duties effectively. Some of the interactive functions with the board are: (a) At least once a year, the board should review the effectiveness and efficiency of the controls based on the information provided by internal audit function. There should be a review of performance of internal audit function and independent external quality assurance review of internal audit function. (b) Senior management should assist to develop the framework that identify, measures, monitors and controls all risks faced by the organisation within which the internal audit functions. (c) They are also to ensure that actions are taken in all findings and recommendations. (d) Senior management interacts with the IAF by informing the internal audit function of the new developments, initiatives of projects, products and operational changes and all the associated risks and finally, they are also to ensure that internal audit function has sufficient resources to carry out its planned and scope of functions, (Ruigrok et al., 2006; Spira, 1998, 2003).

Interaction with Audit committee

The origins of audit committees can be traced back to the 1940s in the US and early 1990s in Europe. Audit committees are rare before the early 1990s in continental Europe. Audit committees are nevertheless, comparably, the most established and mature out of all board committees. They are entrusted with the task of ensuring high standards in financial reporting that underpin confidence in financial markets (Carson, 2002; Collier and Zaman, 2005; European Commission, 2003; Habbash, 2013). Audit committee should be made up of independent non-executive directors, with at least one individual having expertise in financial management.

In Nigeria, the Company and Allied Matters Decree CAMD 1990 in section 259 (6) made a provision for objectives functions of audit committee as follows: 1) To ascertain whether the accounting and reporting policies of the company are in accordance with legal requirements and agreed ethical practices; 2) To review the scope and planning of audit requirement such as: a) To review the findings on management matters in conjunction with the external auditor and departmental responses thereon; b) To keep under review the effectiveness of the company's system of accounting and internal control; c) To make recommendations to the Board in regard to the appointment, removal and remuneration of external auditors of the company; and d) To authorize the internal auditor to carry out investigations into any activities of the company which may be of interest or concern to the committee.

The relationship between the audit committee and the internal auditor is an important one, with a reciprocal strengthening of each other's function (Goodwin & Yeo, 2001). In other words, the audit committee can strengthen the internal audit function, and internal auditors can, in turn, be an important resource to the audit committee as it strives to fulfill its responsibilities (Turley and Zaman, 2004). Based upon their analysis of audit committee charters and reports, Carcello et al. (2002) discovered the role of the audit committees in discharging their responsibilities should be described in a separate section of the company's annual report. Such an account of the audit committee work should outline any significant issues that arise in committee consideration with regard to financial statements, information on the external audit process (appointment, tenure), and an explanation of how auditor objectivity and independence are safeguarded, if the external auditor provides non-audit services (Collier and Zaman, 2005; Habbash, 2013; UK Corporate Governance Code, 2014; Bart, 2010).

Interaction with Compensation committee

Compensation committee had been known long both in US and the European countries. This is known as a developing and maturing structure, contrary to audit committees, which are a well-established institution. The major function of compensation committees is to manage corporate executive annual incentive compensation plans. The committee are designed to review the terms and conditions of employment of senior management (Adut et al., 2003; Carson, 2002; Conyon and Peck, 1998; Conyon and Mallin, 1997). The major work of the committee has been that of setting remuneration of the chairman and all executive directors in the company, inclusive of pension rights and any potential compensation payments. The level and structure of remuneration for senior management, which is typically the first layer of management below the board level, should be also recommended and monitored by the committee. The compensation committee should be responsible for managing any potential conflicts of interest when receiving views from executive directors or senior management. The committee is responsible for appointing any remuneration consultants with regards to the executive director remuneration, and should make sure that the committee chairman maintains contact with its principal shareholders about remuneration as required (UK Corporate Governance Code, 2014). It is the compensation committee that exercise judgment regarding the positioning of their company, relative to other firms. The compensation committee should make available its terms of reference, explaining its role and the authority assigned to it by the board. Thus, if remuneration consultants are appointed, it should provide a separate statement in the annual report to identify them and to indicate whether they have any material connection with the focal company (UK Corporate Governance Code, 2014; Conyon & Peck, 1998; Ezzamel & Watson, 1998)

In a literature survey, (Berber, Pasula, Radosevic & Ikonov, 2012) said that compensations and benefits have always been very sensitive and complex activity. They continued that model of compensations presents financial and non-financial rewards linked to efforts and performances of employees and executives. There are two main reasons that compensations are motivation factor for employees and operational costs for the company. It is also a demand of making rewarding process highly effective and efficient for reaching employees and shareholders satisfaction. Further many frauds, risks and problems related to amounts of executive compensations in the past, have raised appropriate management and control of this process. The one possible way of reaching the effectiveness and efficiency of compensation process in terms of appropriate governance, risk management and control is the internal audit interaction with the compensation committees.

Interaction with Risk Management Committee

In Nigeria, the Corporate Governance, (2018) Code provides that the Risk Management Committee shall meet at least twice every financial year and unlike the 2016 Code, delves deeper into the extent of its functions as regard information technology. In this regard, the committee is required to review and recommend for approval of the Board, at least annually, the company's information technology (IT) data governance framework which may include the following: development of IT strategy and policy; proactive monitoring and management of cyber threats and attacks as well as adverse social media incidents; management of risks relating to third-party and outsourced IT service providers; assessment of value delivered to the company through investments in IT; and periodic independent assurance on the effectiveness of the company's IT arrangements. The Board is also recommended to establish a sound framework for managing risks and ensuring effective internal control¹¹. The risk management framework is to be formally approved by the Board, communicated in simple and clear language to all employees and integrated into the day-to-day operations of the business.

Company practices regarding risk management issues in board of directors meetings vary widely, depending largely upon the size of the company, the sectors in which it operate, the current economic and financial environment, and previous experience with risk management shortcomings. Some research shows that the Risk Management Committee has effectively been playing their role in the control, detection and prevention of risk especially in terms of financial risk (Abdullah, Shukor, & Rahmat, 2017; Abdullah & Said, 2019). The existence of a stand-alone risk management committee is also positively related to risk management disclosure (Abdullah et al., 2017) and the non-existence of any financial crime incidence (Abdullah & Said, 2019). There are research studies that show evidence on the relationship between Risk Management Committee and audit outcomes (Ahmed & Che-Ahmad, 2016; Ali, Besar, & Mastuki, 2017; Hines, Masli, Mauldin, & Peters, 2015).

Several literature on risk management committee have been carried out more in the banking sector (Aebi, Sabato, & Schmid, 2012; Hines & Peters, 2015). Fraud risk management seems to be an essential process within the financial industry, (Ssekiziyivu, Mwisigwa, Joseph, & Nkote Nabeta, 2017) said risk management is the most important determinant on performance of a loan portfolio. Risk management is also needed in non-financial sector companies to improve their quality of risk management. Brown, Steen, and Foreman (2009) shows that due to the increase in business risk complexity occurs in the non-financial industry, the need arises for corporate governance to specifically focus on risk management practices, such as through the establishment of risk management committee. Risk management committee, are expected to be filled with more skillful members that have in-depth knowledge of risk management (Choi, 2013; Fraser & Henry, 2007). Further, companies that forma risk management committee can increase board risk monitoring, and can dedicate its resources to evaluate the company's risk appetite, risk profile, and validate the company's internal controls (Moore & Brauneis, 2008). Subramaniam, McManus, and Zhang (2009) shows that risk

management committee is mostly formed in companies with a high level of financial reporting risk to assist in mitigating the existing risk within the company. But many countries including Nigeria have provided that their corporate governance board committees include for both financial and non financial listed companies.

Theoretical Framework

The agency theory remains the main theoretical exposition in the corporate governance scholarship (Durisin and Puzone, 2009; Filatotchev and Boyd, 2009). This theory of agency conflicts which is evaluated to describe the nexus between the principals and the agents reveals that the board members are elected to manage the company by the shareholders at AGM who are also the owners as well. It was observed by Himmelberg et al. (2002) that corporate governance function of an organization is driven by some common characteristics which are not exactly measurable and observable. The view is that managers are intended to retain a significant portion of ownership of the high growth firms to give importance to their commitment and utilization of remuneration based on equity; based on stable performance insider ownership gradually increases

Agents and principals incline to invest in information systems and control mechanisms to alleviate the information asymmetry between the managers operating as agents and the shareholders as principals, respectively. While decision management is delegated to the top management team, the decision control remains in the remit of the board of directors (Eisenhardt, 1989; Fama and Jensen, 1983; Jensen and Meckling, 1976; Tengamnuay and Stapleton, 2009).

Empirical Reviews

Brown, Steen and Foreman (2009) discussed the relationship between corporate governance and risk management of high technology firms, with publicly listed Australian companies. Result showed that the traditional governance model is inadequate in today's complex business environment, particularly for high technology companies. By analyzing the legislative, industry, and complex risk environment faced by these firms, result also show that the traditional model may need to change to meet the demands of a wider definition of governance that specifically incorporates risk management. Further the finding shows a backdrop of corporate collapse, increasing corporate regulation and reporting, risk management and oversight has been a recent addition to the role of the board.

Sarens and Beelde (2006) carried out a study, based on six case studies within a Belgian context, provides a qualitative assessment of the interaction between internal auditors (IA) and audit committees (AC), by analysing their expectations and perceptions. Result indicates that audit committee members want internal auditors to be an important information provider. Therefore they expect internal auditors to demonstrate and communicate, as much as possible, their contribution to the monitoring and functioning of the organisation, and to play both an active and proactive role in risk management.

Sartawe and Shrouf, (2017) studied the impact of interaction between audit committee and internal audit of enhance the corporate governance at listed Palestinian companies. The methodology applied questionnaires sent to chief internal audit executives of 44 listed Palestinian companies, and to enhance the depth of variables measurement tools the questionnaire was sent to 3 accounting professors and high experienced internal auditor at big Palestinian companies to take their feedback about the questions included in questionnaire. The study found that the interaction between audit committee and internal audit have significant positively effect to enhance the corporate governance. And 97% of study sample agreed the direct line of access for internal auditor to audit committee that enhance the corporate governance, at the same percentage the sample was agree that the (the review of internal audit work result, and plane of internal audit by the audit committee effect the corporate governance).

Larasati, Ratri, Nasih and Harymawan (2019) investigated Independent audit committee, risk management committee, and audit fees. They used 510 observations from 216 different companies for 2014–2016. The methodology applied ordinary least square analysis and found that participation of the independent commissioner as an audit committee member will strengthen the relationship between RMC and audit fee. Further result shows that the existence of a stand-alone risk management committee and a more independent commissioner sitting on the audit committee will demand higher audit coverage and thus it will increase the audit fee.

Tao and Hutchinson (2013) examines the role of compensation and risk committees in managing and monitoring the risk behaviour of Australian financial firms in the period leading up to the global financial crisis (2006-2008). 711 observations of financial sector firms demonstrate how the coordination of risk management and compensation committees reduces information asymmetry. Result shows that the composition of the risk and compensation committees is positively associated with risk, which, in turn, is associated with firm performance. More importantly, information asymmetry is reduced when a director is a member of both the risk and compensation committees which moderate the negative association between risk and firm performance for firms with high risk.

Subramaniam, McManus and Zhang (2009) examine corporate governance, firm characteristics and risk management committee formation in Australian companies. The design used data collected from the annual reports of the top 300 Australian Stock Exchange (ASX)-listed companies. The results, based on logistic regression analyses, indicate that RMCs tend to exist in companies with an independent board chairman and larger boards. Further, the results also indicate that in comparison to

companies with a combined RMC and audit committee, those with a separate RMC are more likely to have larger boards, higher financial reporting risk and lower organisational complexity.

Zemzema and Kacemb (2014), investigate the relationship between risk management, corporate governance and performance in lending institutions. The empirical analyses came from a sample of 17 Tunisian lending institutions over the period 2002-2011 using an OLS regression. The study shows that board size affect performance significantly. Most importantly, the existence of a risk committee within the institution has a negative and significant effect on performance.

Nicolas Garcia-Toreaa, Belen Fernandez-Feijooa and Martade la Cuestab (2016), analyzes whether effective boards of directors in addressing shareholder interests also prove to be effective in guaranteeing the interests of the rest of the firm's stakeholders. The study used the transparency of sustainability reports as a proxy for the stakeholder perspective in an international sample of 2366 companies and found that effective boards are more likely to address the interests of both the shareholders and the rest of the firm's stakeholders. Furthermore, they propose a measure of board effectiveness by gathering several board characteristics.

Tara and Sadri (2015) investigated corporate Governance and Risk Management: An Indian Perspective. The study was based on over a decade's research attempts to shed some light on the topic based on the Indian experience. Result found out the fact that there is a significant relationship between corporate governance and the management of risk and that corporate governance is one of the main means by which a company can manage risk.

Saha, Moutushi and Salauddin (2018) conducted a study to explore the relationship between corporate governance and firm performance with considering the role of board and audit committee in 81 listed companies. Multiple liner regression analysis is used as the underlying statistical test on the dependent variables, ROA, ROE and TQ to test the association between the independent variables (board size, board independence, size of audit committee and audit committee composition) with firm performance. The results of the study signify that board independence ratio and audit committee is statistically significant and has positive impact on ROA and TQ. But, it is not statistically significant in the case of firm performance indicator ROE. Board size is not statistically significant and has negative correlation with firm performance due to group dynamics, communication gaps and indecisiveness of larger groups.

Yasser, Entebang and Mansor (2011), examine the relationship between four important corporate governance mechanisms (board size, board composition, CEO/chairman duality and audit committee) and two firm performance measures (return on equity, ROE, and profit margin, PM), for a sample of 30 Pakistani listed firms between 2008 and 2009. The results provide evidence of a positive significant relationship between ROE and PM and three corporate governance mechanisms (board size, board composition and audit committee).

Zabria, Ahmadb, and Khai Wahc (2015) focuses on corporate governance practices among Top 100 public listed companies in Bursa Malaysia and the relationship between corporate governance practices with firm performance. Two corporate governance's indicators (Board size and Board Independence) were chosen in testing the hypothesized relationship between corporate governance practices with firm performance. Analyses used descriptive and the result showed that board size has significantly weak negative relationship with ROA but it was found to be insignificant to ROE. Other finding indicated that there was no relationship between board independence and firm performance.

Research Designs, Methodology and Processes

A simple survey research design was employed to elicit information from respondents to address the four objectives of the study; while 15 functioning banks are used as the population of banks in Nigeria. Questionnaire was used to collect data from these banks, (refer to appendix seven). The respondents are: 45 internal auditors; 70 fraud auditors and 553 accountants with a total of 668 populations.

The sample techniques employed Taro Yamane's formulae to determine the sample for the study. The formula is given as:

$$n = \frac{N}{1+N(e)^2} \text{ where, } n = \text{Sample Size; } N = \text{Population Size (668); } E = \text{Level of Significance (0.05); } 1 = \text{Constant.}$$

Using the stated formula, therefore, we have:

$$\text{Sample Size} = \frac{668}{1+668(0.05)^2} = \frac{668}{669(0.0025)} = \frac{668}{1.67} = 400.$$

Hence, the sample size for this study is 400 respondents (accountants, internal and fraud audit staff). Each of the 15 chosen commercial /deposit money banks represents a sample frame and the 400 determined sample size is distributed among these institutions. The sample size of the study distributed in each of the 15 banks were apportioned using proportion of the population in the sample size

The study applied, Likert Scale response format of Strongly Agree (5 points), Agree (4 points), Strongly Disagree (3 points), Disagree (2 points), and Undecided (1 points).

A cut off was determined by finding the mean of the nominal values assigned to the options in each variable using the formula and applying the Likert rating weight of 1,2,3,4 and 5: $\bar{X} = \frac{\sum X}{n}$, where; \bar{X} = Mean; X = the score; n = number of items.

Thus $\bar{X} = \frac{5+4+3+2+1}{5} = \frac{15}{5} = 3$. Our decision rule, therefore, is that any mean within 3.0 and above was considered as significant by the respondents, while a mean that is below 3.0 is taken as not significant. SPSS statistical analyses software was employed to carry out the analyses.

Likert Scale was used to measure the extent of the respondents' agreement on each variable factor and descriptive statistics of percentage, mean and standard deviation were also applied.

To further strengthen the empirical analyses and test the posited hypotheses, ANOVA was employed to test the agreement of fraud audit staff, internal audit staff and Accountants.

Reliability of the instrument was established using Cronback Alpha correlation of items which the average yield is (0.852), and the variables were considered normal.

Analyses and Presentation of result

Question 1: Does internal audit interactive function with Board committee impacts fraud risk management?

Table 1 Internal audit interactive function with board committee in fraud risk management

Respondents	Do you agree that internal audit interactive function with Board committee impacts fraud risk management?					Total
	Strongly disagree	Disagree	Undecided	Agree	Strongly agree	
Internal auditors	2 4.9%	1 2.4%	3 7.3%	21 51.2%	14 34.1%	41 100.0%
Fraud auditors	0 0%	2 3.8%	1 1.9%	29 55.8%	20 38.5%	52 100.0%
Accountants	2 1.7%	2 1.7%	8 6.7%	42 35.0%	66 55.0%	120 100.0%

Source: Author's Computation, 2020

The table above shows that greater number of fraud auditors agreed showing 29(55.8%), internal auditors has 21(51.2%), while accountants has 42(35%). On the other hand, the accountants scored more on strongly agreed with 66(55.00) than the internal and the fraud auditors who scored 14(34.1%) and 20(38.5) respectively. 8 accountants representing 6.7% stated undecided, while 3 internal auditors with 7.3% and one fraud auditor with 1.9% respectively stated undecided. Internal auditors who scored 2(4.9%) and 1(2.4%) strongly disagreed and disagreed respectively. Fraud auditors who strongly agreed had 0(0%) and those who disagreed had 2(3.8%). The opinions of accountants on strongly disagreed and disagreed were also represented by 2(17%) and 2(1.7%) as well that interacting with board committee impacts on fraud risk.

Question Two: Does internal audit interactive function with audit committee impacts fraud risk management?

Table 2 Internal audit interactive function with audit committee in fraud risk management

Respondents	Do you agree that internal audit interactive function with audit committee impacts fraud risk management?					Total
	Strongly disagree	Disagree	Undecided	Agree	Strongly agree	
Internal auditors	2 4.9%	5 12.2%	2 4.9%	14 34.1%	18 43.9%	41 100.0%
Fraud auditors	1 1.9%	4 7.7%	4 7.7%	30 57.7%	13 25.0%	52 100.0%
Accountants	3 2.5%	3 2.5%	6 5.0%	61 50.8%	47 39.2%	120 100.0%

Source: Author’s Computation, 2019

From the above table shows that 14 (34.1%) internal auditors and 30 (57.7%) fraud auditors, and 61 (50.8%) accountants all agreed on the subject matter as well. Further, 2 (4.9%) internal auditors and 4 (7.7%) of fraud auditors and 6 (5%) accountants, stated undecided on the subject matter. The other opinions are 5(12.2%) internal auditors and 4 (7.7%) fraud auditors, and 3 (2.5%) accountants also categorically disagreed with the opinion; while 4 (4.9%) internal auditors, one fraud auditors representing 1.9% and 3 (2.5%) accountants strongly disagreed on the subject matter that interaction with audit committee impact fraud risk.

Question Three: Does internal audit interactive function with remuneration committee impacts fraud risk management?

Table 3 Internal audit interactive function with remuneration committee in fraud risk management

Respondents	Do you agree that internal audit interactive function with remuneration committee impacts fraud risk management?					Total
	Strongly disagree	Disagree	Undecided	Agree	Strongly agree	
Internal auditors	1 2.4%	1 2.4%	6 14.6%	18 43.9%	15 36.6%	41 100.0%
Fraud auditors	0 0%	3 5.8%	8 15.4%	24 46.2%	17 32.7%	52 100.0%
Accountants	5 2.5%	6 5.0%	11 9.2%	61 50.8%	39 32.5%	120 100.0%

Source: Author’s Computation, 2019

The analysis above revealed that 15 (36.6%) internal auditors and 17 (32.7%) fraud auditors and 39 (32.5%) accountants, all declared that they strongly agreed that internal audit interacting with remuneration committee controls fraud risk. Again, internal auditors who scored 18 (43.9%), and fraud auditors scored 24(46.2%), while accountants who scored 61 (60.8%) all agreed. Further, 6(14.60) internal auditors, and 8 (15.4) fraud auditors, while 11 (9.2%) accountants, declared undecided on the subject matter. Furthermore, an internal auditor with 2.4%, and 3 fraud auditors with (5.8), and 6 accountants with 5% disagreed. Finally, one internal auditor with 2.4% and 3 accountants with 2.5% strongly disagreed on the opinion, while there was no fraud auditor who strongly disagreed that interaction with remuneration committee impact fraud risk.

Question 4: Does internal audit interactive function with Risk management committee impacts on fraud risk?

Table 4 internal audit interactive function with Risk management committee in fraud risk management

Respondents	Do you agree that internal audit interactive function with Risk management committee impacts fraud risk?					Total
	Strongly disagree	Disagree	Undecided	Agree	Strongly agree	
Internal auditors	2 4.9%	1 2.4%	5 12.2%	17 41.5%	16 39.0%	41 100.0%
Fraud auditors	2 3.8%	2 3.8%	4 7.7%	27 51%	17 32.7%	52 100.0%
Accountants	2 1.7%	5 4.2%	6 5.0%	48 40.0%	59 49.2%	120 100.0%

Source: Author’s Computation, 2019

The table above revealed that 16 internal auditors with 39%, and 17 fraud auditors with 32.7% and 59 accountants with 49.2% strongly agreed that internal audit function interact with risk management impacts fraud risk. Also, 17 internal auditors with 41.5%, and 27 fraud auditors with 51.9% and 48 accountants with 40% all agreed that internal audit function interacting with risk management committee impacts fraud risk. Those who stated undecided were 5(12.5%) internal auditors and 4(7.7%) fraud auditors and also, 6 (5%) accountants. One internal auditor with 2.4% and 2 fraud auditors with 3.8% and also 5 accountants with 4.2% disagreed on the matter. Further, 2 internal auditors with 4.9%, and 2 fraud auditors with 3.8%; finally, 2 accountants with 1.7% strongly disagreed that internal audit function interacting with risk management impacts fraud risk.

Reinstate main objective question: Do you agree that internal audit interactive function impacts on fraud risk?

Table 5 Individual and group means and standard deviations scores in internal audit interactive function in fraud risk management.

VARIABLES	INTERUAL AUDITORS			FRAUD AUDITORS			ACCOUNTANTS			TOTAL		
	Mean	Std	N	Mean	Std	N	Mean	Std	N	Mean	Std	N
Board committee	4.15	0.92	41	4.37	0.78	52	4.35	0.69	120	4.28	0.80	213
Audit committee	4.05	0.98	41	3.96	0.99	52	4.66	0.27	120	4.31	0.85	213
Remuneration committee	4.03	0.97	41	4.09	0.99	52	4.33	0.75	120	4.22	0.90	213
Risk management committee	4.96	0.09	41	4.11	0.90	52	4.01	0.98	120	4.36	0.65	213
TOTAL	4.31	0.74		4.13	0.92		4.33	0.67				

Source: Researchers response analysis from survey, 2016.

Respondents mean and standard deviation analysis above revealed that internal auditors has the highest mean of 4.96 and the lowest standard deviation of 0.09. The group mean of internal auditors is 4.31 with a standard deviation of 0.74 and fraud auditors had a group mean of 4.13 with a standard deviation of 0.92, while accountants has a group mean of 4.33 with a standard deviation of 0.67. But the group who has the highest mean score is the accountants with the lowest standard deviation of 0.67 showing that are more homogeneity in their agreement than other groups. The scores of internal auditors and fraud auditors has small value of standard deviation showing a little variability. Therefore, the mean and standard deviation do not differ in variability among the groups opinion showing that internal audit interactive function with corporate governance board committees impact fraud risk.

H₀: Internal audit interactive function with: Risk management committee; Audit committee; Remuneration committee; and Board committee, are not statistically significant in fraud risk management fraud risk in Nigerian.

Table 6: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Ho i: Internal audit interactive function with board committee is not statistically significant in fraud risk management.	Between Groups	1.464	4	.366	.521	0.720
	Within Groups	146.085	208	.702		
	Total	147.549	212			
Ho ii: Internal audit interactive function with audit committee is not statistically significant in fraud risk management	Between Groups	2.990	4	.748	0.448	0.73
	Within Groups	186.305	208	.896		
	Total	189.296	212			
Ho iii: Internal audit interactive function with remuneration committee is not statistically significant in fraud risk management.	Between Groups	5.219	4	1.305	0.636	0.970
	Within Groups	165.861	208	.797		
	Total	171.080	212			
Ho iv: Internal audit interactive function with risk management committee is not statistically significant in fraud risk management.	Between Groups	4.850	4	1.213	0.585	0.740
	Within Groups	182.060	208	.875		
	Total	186.911	212			

Authors Computation, 2019

ANOVA result gave the P values as follows 0.720, 0.730, 0.970 and 0.740. Then the overall P value is 0.79. Applying the decision rule where the P value $0.79 > 0.05$, we therefore reject the null hypothesis and accept the alternate hypothesis and conclude that the interaction is significant in impacting fraud risk and thus conclude that there is no significant difference among

the opinions of internal auditors, fraud auditors and accountants that internal audit interactive function with the committees significantly impacts fraud risk in Nigeria. The average F-Statistic figure is (0.5475) which is approximately 55% found in the criterion variable, showing that the independent variables explains about 55% of the independent variable; while the rest of about 45% are explained by other variables not included in our study.

Findings:

The result of the analysis showed that the testing of the null hypothesis was not accepted. The respondents stated that internal audit interactive function significantly impacts fraud risk.

Discussions:

The result of table 6 shows that internal audit interactive function is significant in fraud risk management, and this did not change based on respondents individual and collective opinions. Any observed difference in their opinion was due to chance (Uzagulu, 1989).

This result attested that internal audit interacting with: (a) Board Committee; (b) Audit committee (c) Remuneration committee; and (d) Risk management and internal control systems significantly impacts fraud risk.

The findings do not agree with the opinion of (Hutchinson & Mazlina, 2009); Abbot, Daughert, Parker & Garry, 2015) who suggested a different variable that interact with internal audit function in the management of fraud risk. The result agrees with (Tara and Sadri, 2015; Brown, Steen and Foreman, 2009) agrees that corporate governance is significant in fraud risk. But, the findings on internal audit interactive function with Board committee being significant in fraud risk, agrees with the views of (Bou-Read, 2000; Ernest & Young, 2008; IPPF) and also the findings of interactive function with the audit committee agrees with (Sartawe and Shrouf, 2017; Sarents and Beelde, 2006; Larasaki, Ratri, Nasih and Harymawan 2019; Subramaniam, McManus and Zhang, 2009). Interaction with Audit committee also agrees with the suggestions of (ICEW, 2004; Gramling, Malleta, Schneider & Church, 2004; Paape, George, Panagiotis, Rani & Evanthia, 2003; Godwin, 2003; Christopher, Sorens & Leueng, 2010; Perrin, 2001; Baesley, 1993; McMullen, 1996) that interaction impact fraud risk. Interaction with Compensation committee agrees with the findings of (N. B. Tao and M. Hutchinson, 2013) to be significant in fraud risk management. Internal audit interaction with risk management impacts fraud risk was found by (Tara and Sadri, 2015; Lasarati, Ratri, Nasih and Harymawan, 2019; N. B. Tao and M. Hutchinson, 2013; Subramaniam, McManus and Zhang, 2009) in agreement with the study findings. From another dimension, internal audit interaction with the committees in fraud risk management had, both the group and the individual mean scores above 3.00 and the standard deviation reduced significantly to show uniform acceptance that the interaction impacts fraud risk.

In literature, a strong relationship with the audit committee was strongly suggested by (PWC, 2015) to be effective in fraud risk management and at this, was agreed that many audit committee find value in ensuring that there is an open line of communication between the committee and the internal audit function. Therefore, companies require the head of internal audit to report directly to the audit committee, rather than to management and this represent the best practice in fraud risk management. The audit committee chair and the head of internal audit function should have regular contact outside audit committee meetings. The audit committee should also encourage a positive relationship between internal audit and external auditor, to ensure effective relationship between them in realization of fraud risk objectives.

Summary of Findings

The population of the study was made of 668 respondents made up of internal auditors, fraud auditors and accountant in a purposefully selected 15 banks. Application of Taro Yamane's formulae gave 400 sample sizes for the study. The valid returned questionnaires were 213 respondents. Likert Scale was used to analyze the responses in strongly agreed, agreed, strongly disagreed, disagreed, and undecided; while Descriptive and ANOVA parametric analysis was employed to test the four hypotheses formulated. The four tested null hypotheses were rejected and the alternate hypotheses were accepted. The F-Statistic shows that 0.55 (55%) of the four internal audit interactive variables jointly explains the dependent variable; while the balance of 45% are explained by other variables beyond this study. Figures of ANOVA show that both the P values of the individual values of the independent variables as 0.720, 0.730, 0.970 and 0.740 and the overall P value as 0.79 are all significant at 5% level. Finally, internal audit interacting function in fraud risk management with board committee, audit committee, Remuneration Committee and Risk management committee significantly impacts fraud risk.

Recommendations

This study findings, provides useful information for policy makers or regulators in improving the corporate fraud risk management policies in collaboration with internal audit function.

References

Adut, D., Cready, W.H. and Lopez, T.J. (2003) 'Restructuring charges and CEO cash compensation: a re-examination', *Accounting Review*, Vol. 78, No. 1, pp.169–192.

Abdullah, M., & Shukor, Z. A. (2017, December). The comparative moderating effect of risk management committee and audit committee on the association between voluntary risk management disclosure and firm performance. *Jurnal Pengurusan*, 51, 159–172. doi:10.17576/pengurusan

Abdullah, M. , Shukor, Z. A. , & Rahmat, M. M. (2017, December). The influences of risk management committee and audit committee towards voluntary risk management disclosure. *Jurnal Pengurusan* , 50, 83–95. doi:10.17576/pengurusan-2017-50-08

Abdullah, W. N. , & Said, R. (2019). Audit and risk committee in financial crime prevention. *Journal of Financial Crime*, 26(1), 223–234. doi:10.1108/JFC-11-2017-0116.

Aebi, V. , Sabato, G. , & Schmid, M. (2012). Risk management, corporate governance, and bank performance in the financial crisis. *Journal of Banking & Finance* , 36(12), 3213–3226. doi:10.1016/j.jbankfin.2011.10.020 [Crossref], [Web of Science ®].

Ahmed, M. I. , & Che-Ahmad, A. (2016). Effects of corporate governance characteristics on audit report lags. *International Journal of Economics and Financial Issues* , 6(7 Special Issue), 159–164.

Ahmed Zemzema and Oumeïma Kacemb (2014) Risk Management, Board Characteristics and Performance in the Tunisian Lending Institutions *International Journal of Finance & Banking Studies IJFBS Vol.3 No.1, 2014 ISSN: 2147-4486* available online at www.ssbfn.net

Ahmed, H. L., Alam, M. J., Jafar, S. A., & Zaman, S. H. (2008). A Conceptual Review on Corporate Governance and its Effect on Firm's Performance: Bangladesh Perspective. *AIUB Business and Economics Working Paper Series*, 10, 1-24.

Anderson, D., Francis, J.R. & Stokes, D.J. (1993). Auditing, directorship and the demand for monitoring. *Journal of Accounting and Public Policy*, 12(4). 353-375.

Ali, M. M. , Besar, S. S. N. T. , & Mastuki, N. M. (2017). Audit committee characteristics, risk management committee and financial restatements. *Advanced Science Letters* , 23(1), 287–291. doi:10.1166/asl.2017.7160 [Crossref].

Brown, I. , Steen, A. , & Foreman, J. (2009). Risk management in corporate governance: A review and proposal. *Corporate Governance: An International Review* , 17(5), 546–558. doi:10.1111/j.1467-8683.2009.00763.x [Crossref], [Web of Science ®].

Badara, M.S., & Saidin, S. Z. (2014). Empirical evidence of antecedent of internal audit effectiveness from Nigerian perspective. *Middle-East Journal of Scientific Research* 19(4), 460-471.

Bart, C. (2010) 'An analysis of Canadian audit committee charters', *International Journal of Business Governance and Ethics*, Vol. 5, Nos. 1/2, pp.98–111.

Bozec, R. (2005). Boards of Directors, Market Discipline and Firm Performance. *Journal of Business Finance & Accounting*, 32(9-10), 1921-1960. <https://doi.org/10.1111/j.0306-686X.2005.00652.x>

I. Brown, A. B. Steen and J. Foreman (2009) Risk Management in Corporate Governance: A Review and Proposal, *Corporate Governance: An International Review*, Vol. 17, Issue 5, pp. 546-558, September 2009

Burnaby, P., & Hass, S. (2009). A Summary of the Global Common Body of Knowledge 2006 (CBOK) Study in Internal Auditing. *Managerial Auditing Journal*, 24(9), 813-834. <http://dx.doi.org/10.1108/02686900910994782>

Cadbury Report (1992) Committee on the Financial Aspects of Corporate Governance, Gee, London.

S. Claessens and B. Yurtoglu, "Corporate governance in emerging markets: A survey," *Emerging Markets Review*, pp. 151-33, 2013.

Carcello, J.V. and Neal, T.L. (2000) 'Audit committee composition and auditor reporting', *Accounting Review*, Vol. 75, No. 4, pp.453–467.

Carcello, J.V. and Neal, T.L. (2003) 'Audit committee characteristics and auditor dismissals following 'new' going-concern reports', *Accounting Review*, Vol. 78, No. 1, pp.95–117.

Carson, E. (2002) 'Factors associated with the development of board sub-committees', *Corporate Governance: An International Review*, Vol. 10, No. 1, pp.4–18.

Collier, P. and Zaman, M. (2005) 'Convergence in European corporate governance: the audit committee concept', *Corporate Governance: An International Review*, Vol. 13, No. 6, pp.753–768.

Conyon, M.J. and Mallin, C. (1997) 'Women in the boardroom: evidence from large UK companies', *Corporate Governance: An International Review*, Vol. 5, No. 3, pp.112–117.

Conyon, M.J. and Peck, S.I. (1998) 'Board control, remuneration committees and top management compensation', *Academy of Management Journal*, Vol. 41, No. 2, pp.146–157.

Coram, P. Ferguson, C. & Moroney, R. (2011). The importance of internal audit in fraud detection.

Cronback, L. J. (1960). *Essentials of psychological testing*. New York: Harper and Brothers Publishers.

Daily, C.M., Johnson, J.L., Ellstrand, A.E. and Dalton, D.R. (1998) 'Compensation committee composition as a determinant of CEO compensation', *Academy of Management Journal*, Vol. 41, No. 2, pp.209–220.

De Kluyver C. A. 2009. *A Primer on Corporate Governance*. Business Expert Press, New York

Dominic, S.B.S., & Nonna, M. (2011). The internal audit function: perception of internal audit roles, effectiveness and evaluation. *Management Auditing Journal* 26(7), 605-622.

Dyah Ayu Larasati, Melinda Cahyaning Ratri, Mohammad Nasih & Iman Harymawan (2019). Independent audit committee, risk management committee, and audit fees. *Journal Cogent Business & Management* Volume 6, 2019 - Issue 1 Article: 1707042 | Received 23 Nov 2019.

Eisenhardt, K.M. (1989) 'Agency theory: an assessment and review', *Academy of Management Review*, Vol. 14, No. 1, pp.57–73.

Eminet, A. and Guedri, Z. (2010) 'The role of nominating committees and director reputation in shaping the labor market for directors: an empirical assessment', *Corporate Governance: An International Review*, Vol. 18, No. 6, pp.557–574.

Endaya, K.E. & Hanefah, M.M. (2013). Internal audit effectiveness: an approach proposition to develop the theoretical framework. *Research Journal of Finance and Accounting* 4(10), 92-202.

Ernst & Young. (2008). *Escalating the role of internal audit: Ernst & Young Global Internal Audit Survey*. (Accessible online @ <http://www.eg.com/global/content.nst/Internation/AABS>. Advisory-Escalating the role of Internal audit June 2013).

European Commission (2003) *Modernising Company Law and Enhancing Corporate Governance in the European Union - A Plan to Move Forward*, Com (2003) 284, European Commission, Brussels.

Ezzamel, M. and Watson, R. (1998) 'Market comparison earnings and the bidding-up of the executive cash compensation: evidence from the United Kingdom', *Academy of Management Journal*, Vol. 41, No. 2, pp.221–231.

Fama, E.F. and Jensen, M.C. (1983) 'Separation of ownership and control', *Journal of Law and Economics*, Vol. 26, No. 2, pp.301–325.

Filatotchev, I. and Boyd, B.K. (2009) 'Taking stock of corporate governance research while looking to the future', *Corporate Governance: An International Review*, Vol. 17, No. 3, pp.257–265.

S. L. Gillan, "Recent developments in corporate governance: An overview," *Journal of Corporate Finance*, vol. 12, pp. 381-402, 2006.

Habbash, M. (2013) 'Earnings management, audit committee effectiveness and the role of blockholders ownership: Evidence from large UK firms', *International Journal of Business Governance and Ethics*, Vol. 8, No. 2, pp.155–180.

Hamilton, D. I., Gabriel, J. M.O. (2012). Dimension of fraud in nigeria quoted firms. *American Journal of Social and Management Sciences*.

Hines, C. S. , & Peters, G. F. (2015). Voluntary risk management committee formation: Determinants and short-term outcomes. *Journal of Accounting and Public Policy* , 34(3), 267–290. doi:10.1016/j.jaccpubpol.2015.02.001 [Crossref], [Web of Science ®], [Google Scholar]

Intakhan, P. & Ussahawanitchakit, P. (2010). Roles of audit experience and ethical reasoning in audit professionalism and audit effectiveness through a moderator of stakeholders pressure: An empirical study of tax auditors in thailand. *Journal of Academy of Business and Economics* 10(5), 1-15.

Institute of internal Auditors IIA. (2004). *The role of internal auditing in enterprise-wide risk management*. Global Headquarters 247 Mariland Avenue Sydneys.

Jensen, M.C. and Meckling, W. (1976) 'Theory of the firm: managerial behavior, agency costs and ownership structure', *Journal of Financial Economics*, Vol. 3, No. 4, pp.305–360.

S. P. Kaczmarek and R. B. Nyuur(2016) Review of the literature on board committees: taking stock and looking ahead Article (PDF Available) in *International Journal of Business Governance and Ethics* 11(2):89 · January 2016 with 409 Reads, DOI: 10.1504/IJBGE.2016.078200

Kulkani and Maniam. (2014). Corporate governance in India perspective. *International Journal of Trade, Economics and Finance* 5(4). August 2014.

Mui, G. (2010). Factors that impact on internal auditors, fraud detection capabilities. A Report for the Institute of Internal Auditors. Australia. Online at www.sopac.org.au/Document-Library/fac. (Accessed on May 2014).

Nemanja Berber, Milan Pasula, Milan Radosevic and Dejan Ikonov (2012). Internal Audit of Compensations and Benefits: Tasks and Risks in Production Systems. *Engineering Economics* 23(4):414-424 · October 2012 with 3,813 Reads DOI: 10.5755/j01.ee.23.4.1143

NicolasGarcia-Toreaa ,BelenFernandez-Feijooa and Martade la Cuestab (2016). Board of director's effectiveness and the stakeholder perspective of corporate governance: Do effective boards promote the interests of shareholders and stakeholders? <https://doi.org/10.1016/j.brq.2016.06.001>Get rights and content

Omar, N., and Abubakar, K.M. (2012). Fraud prevention mechanisms of Malaysian government linked companies: An assessment of existence and effectiveness. *Journal of Modern Accounting and Auditing* 8(1), 15-31.

Ruigrok, W., Peck, S., Tacheva, S., Greve, P. and Hu, Y. (2006) 'The determinants and effects of board nomination committees', *Journal of Management and Governance*, Vol. 10, No. 2, pp.119–148.

Salawu, R. S. & Agbeja, O. (2007). Auditing and account ability in the public sector. *International Journal of Applied Economics and Finance* 1(1), 45 -54.

Spira, L.F. (1998) 'An evolutionary perspective on audit committee effectiveness', *Corporate Governance: An International Review*, Vol. 6, No. 1, pp.29–38.

Spira, L.F. (2003) 'Audit committees: begging the question', *Corporate Governance: An International Review*, Vol. 11, No. 3, pp.180–188.

Stribu, D., Moraru, M., Farcane, N., Blidset, R., & Popa, A (2009). Fraud and error in auditors' responsibility levels. *Annales University Apulensis Series Oeconomica*, 11(1),5.

N. K. Saha, R. H. and M. M. Salauddin (2018) Corporate Governance and Firm Performance: The Role of the Board and Audit Committee *Asian Journal of Finance & Accounting* ISSN 1946-052X 2018, Vol. 10, No. 1 ajfa.macrothink.org. Published: June 1, 2018 doi:10.5296/ajfa.v10i1.12933 URL: <https://doi.org/10.5296/ajfa.v10i1.12933>

Sharukh Tara and Sorab Sadri (2015). Corporate Governance and Risk Management: An Indian Perspective, *International Journal of Management Science and Business Administration* Volume 1, Issue 9, August 2015, Pages 33-39

Shafie Mohamed Zabria*, Kamilah Ahmadb, Khaw Khai Wahc (2015)

Corporate Governance Practices and Firm Performance: Evidence from Top 100 Public Listed Companies in Malaysia. 7th International Economics & Business Management Conference, 5th & 6th October 2015.

L. Som, "Corporate Governance Codes in India," *Economic and Political Weekly*, vol. 41, no. 39, pp. 4153-4160, 2006.

Sartawe, Abdulfatah and Shrouf, Laith, The Impact of Interaction between Audit Committee and Internal Audit of Enhance the Corporate Governance at Listed Palestinian Companies (January 20, 2017). Available at SSRN: <https://ssrn.com/abstract=2902640> or <http://dx.doi.org/10.2139/ssrn.2902640>

Ssekiziyivu, B. , Mwesigwa, R. , Joseph, M. , & Nkote Nabeta, I. (2017). Credit allocation, risk management and loan portfolio performance of MFIs—A case of Ugandan firms. *Cogent Business & Management* , 4, 1. doi:10.1080/23311975.2017.1374921 [Taylor & Francis Online], [Web of Science ®], [Google Scholar]

Subramaniam, N. , McManus, L. , & Zhang, J. (2009). Corporate governance, firm characteristics and risk management committee formation in Australian companies. *Managerial Auditing Journal* , 24(4), 316–339. doi:10.1108/02686900910948170 [Crossref], [Google Scholar]

N.B. Tao and M. Hutchinson (2013) Corporate governance and risk management: The role of risk management and compensation committees. Article in *Journal of Contemporary Accounting and Economics* 9(1):83-99 · January 2013 with 219 Reads DOI: 10.1016/j.jcae.2013.03.003

Turley, S. and Zaman, M. (2004) 'The corporate governance effects of audit committees', *Journal of Management and Governance*, Vol. 8, No. 3, pp.305–332.

Theofanis, K., Drogals, H., Giovanis, N. (2011). Evolution of the effectiveness of internal audit in Greek hotel business. *International Journal of Economics Sciences and Applied Research* 4 (1), 19-34.

Ugwu I. V. (2020). Internal Audit Data Mining in Fraud Risk Management: Evidence from Nigeria Banking Sector. *idosr journal of banking, economics and social sciences* 5(1): 1-21, 2020. ©IDOSR PUBLICATIONS International Digital Organization for Scientific Research ISSN:2579-082X www.idosr.org

Ugwu I. V. (2020). Implementation Of Data Mining Algorithms In Detection Of Fraud In Banks: Evidence From Nigeria. *Journal of accounting, business and social sciences* Volume 3 number 2 June 2020 ISSN 2672-4235 (JABSS)

WIPO (2010). evaluation of internal audit function. WIPO General Assembly, thirty-Ninth 20th Extraordinary Session Geneva. online@ <http://www.the.iaa.org> 20/5/14

Yasser, Entebang and Mansor (2011) Corporate governance and firm performance in Pakistan: The case of Karachi Stock Exchange (KSE)-30.

Reliability Statistics

Cronbach's Alpha	N of Items
.739	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Board committee	34.96	85.180	.857	.727
Audit Committee	34.96	84.953	.854	.727
Remuneration	34.84	85.407	.794	.730
Risk management	35.64	82.280	.877	.726