

EXPLORING THE ROLE OF FORENSIC ACCOUNTING IN LAW ENFORCEMENT “A CASE STUDY FROM THE UK”

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Abstract:

The rapid growth of forensic accounting, an area concerned with the prevention and detection of criminal activities, especially the white-collar criminals and financial fraud, has been intensified by the law enforcement bodies in the United Kingdom. For the development and investment of a country, cracking down on white-collar criminals must be conducted. Forensic accounting, therefore, refers to the investigation of financial fraud through conducting the analysis of financial records aimed at proving or disproving the crimes and serve as the primary court witness in the jurisdiction. The term also known to be investigative accounting constitutes application of specific skills and knowledge in the identification of unauthentic transactions and evidence gathering of the frauds. The research objectives include determination of how forensic accounting enhances adherence to the law by the employees in their workplaces, how the organizational managers in the United Kingdom embrace forensic accounting in enhancing organizational accountability and determination of the criteria followed by the law enforcement officers in ensuring that transparency is enhanced in different business fields. From the research conducted through interviews and case studies, it was discovered that forensic accounting plays a crucial role in enhancing law enforcement in the United Kingdom, with 698 business premises relying on forensic accounting to restore transparency and reduce corruption cases. More importantly, most of the senior forensic accountants heavily focused on the litigation support roles. It was also determined that the rate of financial fraud intensively decreased in 2017 to a rate of 5% due to improved forensic accounting through internal control.

Keywords: Forensic accountants, testifying experts, consulting experts, and law enforcement.

Introduction

The rapid growth of forensic accounting, an area concerned with the prevention and detection of criminal activities, especially the white-collar criminals and financial fraud, has been intensified by the law enforcement bodies in the United Kingdom. For the development and investment of a country, cracking down on white-collar criminals must be conducted. Golden et al. (2011) in their book ‘A guide to forensic accounting investigation’ refer to the forensic accounting as the study presenting and gathering of information regarding financial issues and manipulating it into a form which is understandable by the court of law and provision of evident allegation towards the economic and financial crimes. It is essentially focused on the integration

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of auditing, investigative skills, and auditing. Such aspects are combined and give rise to law-based accounting. 'Forensic' is a term that is applied in a court of law and is suitable for public discussion and judicature (Burchell, Clubb, and Hopwood, 1985). Accounting is the financial process of identification, recording, carrying out the different measurement, classification, verification, summarizing, interpretation and communication of financial information through revealing of loss or profits within a stipulated period (Carcello & Li, 2013). Forensic accounting, therefore, refers to the investigation of financial fraud through conducting an analysis of financial records aimed at proving or disproving the crimes and serve as the primary court witness in the jurisdiction (Bologna and Lindquist, 1995). The term also known to be investigative accounting constitutes application of specific skills and knowledge in the identification of unauthentic transactions and evidence gathering of the frauds.

Research Background

Forensic Accounting in the United Kingdom has played a vital role in the restoration of the country's image and dignity. It is traceable in 1817 in regards to Sefton v. Meyer case which forced the financial accountants to testify in court and fully published in 1946 in the United Kingdom in most cases accountants are known for looking at the digits which is in contrary to the forensic accountants as they look behind the digits (Gray, 2006). The forensic accountants go through intensive training on how to look behind the digits and focus on the realities within business premises. The profession is mainly focused towards analysing, interpreting, summarising and presenting of complex business and financial issues prominently observed in contemporary society. Due to the higher ranking of the United Kingdom among 175 countries, the application of forensic accounting is, therefore, fundamental in establishing transparency in the country. The profession has evolved over the last ten years in the United Kingdom, thus correspondingly increasing their roles in law enforcement. Nigrini (2012) Claims that frequently, many accountants in the UK work closely with the attorneys to provide expert testimony regarding the technical accounting disputes and issues. Despite the role being valuable, common and viable, a number of accountants fail to take a full course of action in the provision of evidence which is efficiently achieved by the forensic accountants. To ensure that a clear role of forensic accounting in law enforcement is understood, it is essential to differentiate between the consulting expert and testifying expert (Smith & Crumbley, 2009). Testifying expert is a term used to show testimonial procedures in the court of law. The expert is a concern with the provision of financial testimonies and, thus, adheres to the rules and regulations regarding the various financial dispute. On the other hand, the role of a consulting expert is not concerned with the provision of the financial testimonies but work specifically within the framework of general and broad rules. Consulting experts assist in the provision of expertise in different financial areas, which is one fundamental role played the forensic accountants (Bozec and Laurin, 2008). According to a survey conducted by UK fraud survey, there is a substantial increase in financial white-collar based crimes in the UK over the last three years. Incorporating forensic accounting is, thus, essential for the country.

Research Objectives

- To determine the litigation roles that are played by the forensic accountants in the United Kingdom;

- To explore how forensic accounting enhances adherence to the law by the employees in their workplaces;
- To determine how the organizational managers in the United Kingdom embrace forensic accounting in enhancing organizational accountability through the litigation support roles;
- To determine the criteria followed by law enforcement officers in ensuring that transparency is enhanced in different business fields.

Research Questions

1. What are the litigation support roles that are played by the forensic accountants in law enforcement?
2. How do Forensic accountants promote ethic programs as well as corporate compliance in the United Kingdom?
3. How do forensic accountants embrace security through internal control?

Aim of the Research

The aim of the research is to intensively explore the manner in which forensic accounting is applied in the law enforcement in the United Kingdom through profoundly addressing the roles that the profession enhances in organizational management as well as other business premises.

Importance of the Research

The research is essential in understanding the litigation support roles that are carried out by the forensic accountants in the United Kingdom and offering of the best opportunity of understanding of the overall forensic accounting profession. The research also offers critical opportunities for further studies to ensure that forensic accounting is fully embraced, which would further reduce the increased financial frauds.

Literature Review

This section is a representation of reviewed literature regarding the topic under research presented by various experts including authors, analysts, scholars, and researchers. It enhances the review of literature in correlation to the research objectives. The section will majorly focus on the theoretical perspective of forensic accounting as well as its roles in enhancing law enforcement as discovered by different experts.

According to Kennedy (2007), there is a rapid growth of forensic accounting in the United Kingdom in the field of accounting; he intensively enhances the description that allows for the determination of reality from various allegations, litigations, and dispute. Forensic is the ability to represent and justify in the court of law, and it is based on this principle that the accountants carry out their duties (Ozili, 2015). It is where an investigation is carried out and approval where an organization or an individual is associated with financial frauds.

Ijeoma (2015) and Nigrini (2011) claim that forensic accounting is based on creative accounting which involves the application of knowledge and accounting rules in manipulating stipulated figures in the book of records within a given organization. The two authors view creative accounting as have transformed from dubious information that connotes to actual in the promotion of intensive management. It is based on the aspect of creative accounting that management is able to adjust from wrong figures in establishing a correct and undisputable book

of accounts. Özkul (2012) further indicates that fraudulent and accounting manipulation are terms that represent the intent of management to interfere with the disclosure and the measurement of financial statement items as well as accounting transactions irrespective of lack of a permit from the accounting standards.

Will (2011) emphasizes that manipulation of earnings is not only founded on various selection methods but is firmly correlated to investing and financial operations. More importantly, since the methods of accounting and policies are given by the accounting standards, investing operations and selection methods should be made available to the users without any discrimination (Will, 2011). In justification, Smith (2015) emphasizes in his study that forensic accounting is crucial in law enforcement since it focuses on the conversion of accounting numbers to the value that the management desires from the actual figures and. Therefore, it can effectively be applied in the provision of evidence within the court of law and refers to income smoothing as the basis of accounting measures.

Popoola (2014), brings out the role of forensic accounting by emphasizing that it promotes demands for changing in the operational style, scope, and method which are fundamental for application in the court of law. It is, therefore, the primary focus of the accountants to be alert of evidence and signs of irregularities and errors in the financial audit. It is the small errors that are applied as concrete evidence in focus to justice during jurisdiction. Consequently, there is a lot of concern by the forensic accountants on minor errors in financial audits since they are correlated to modus operandi regarding the fraudsters and corrupt employees (Copus, 2011). It is not possible for criminals to hide small errors, irregularities, and tracks, providing a better opportunity to discover evidence and fraudulent iceberg. It is, therefore, a requirement for financial auditors to focus on evidence provision, oddities in monetary trends and accounting anomalies.

Cowper (2007) and Muehlmann, Burnaby, and Howe (2012) in their study emphasize that investigative and forensic accounting is essential since it is an application investigative mindset and financial skills and is correctly carried out through the provision of substantial evidence in resolution of economic issues Glatt (2002), as cited by Tian, Gregersen, and Seldin (2008), discovered that forensic accountants should be viewed from different angle as specialists who are strictly focused on fraud detection. They are responsible for documentation of the evidence that is applied in the court of law. They should also be able to carry out their duties in complex litigation and regulatory environment and reconstruct destroyed, deceptive and missing accounting records; it is justified by Cowper (2007) that forensic science focuses on the application of wide spectrum of issues which adheres to the legal system.

Bhasin (2015) views forensic accounting as the application of science in restoring transparency in financial activities and further dates it to the seventeenth century where there was an application of fingerprints in order to acquire loans which were mainly focused on determination of the identity of the debtors. It is from the application of fingerprints that forensic accounting has become sophisticated, specifically in the United Kingdom. Smith & Crumbley (2013) argue that forensic accounting also relies on various branches of forensic science which is of value in law enforcement. Some of the branches known to enhance efficiency in accounting include computer forensics, forensic ballistics, and criminalists (Singleton and Singleton, 2010).

It is from such branches that the role of forensic accounting is ensuring that law is followed to the letter.

Bhasin (2013) stresses that one aspect of the law that forensic accounting has focused on in the United Kingdom is a reduction of corruption cases. Invasion of corruption in the United Kingdom has become a major challenge and, therefore, the society must focus on moving in the right direction financially. Irrespective of deterrence, punishment, and rewards, by focusing on forensic accounting, law enforcement sources have become astronomical (Bhasin, 2013). The basis is that the normative of an individual as regard to wrong or right dictate his or her behaviour and further determines the non-compliance or compliance with respect to the law.

Corruption is one of the concepts which is difficult to define due to its relativity where an individual can manipulate it depending on different ideas and views (DiGabriele, 2011). Forensic accounting intensively focuses on the elimination of corruption through different means. Boden, Georghiou, and Barker (2001) stipulate that corruption is a deviation from the normal duties privately and publicly and aimed towards ensuring a public gain. Forensic accounting, thus, reduces various behaviours which are related to nepotism, bribery, and misappropriation of funds. It is, therefore, concerned by subverting the accurate financial information and directed toward the benefit of an individual or relative. It is the illegal use of public funds and, therefore, a stipulated law enforcement criterion is necessary to curb such problems.

Prato (2005) also claims that the essential role that is played by forensic accounting is the elimination of illegal activities and dishonesty exhibited by different individuals in authority. In the scenario of the United Kingdom, the messenger and his boss, the recruit and the police officer, the student and the teacher, the voter and the politician, the lawyer and the judge, the parishioner and the pastor are all unattained in the stigma. Two main causes have enhanced corruption and bringing in forensic accounting as the solution is malevolent greed and abject poverty. In the words of Ijeoma "The greed of the ruling class plays upon the poverty of the larger majority of the people to perpetuate the scourge of fraud and corruption. Why would a serving Inspector –General of police misappropriate the sum of 17 billion Dollars of police fund in less than four years? What would generate accusation of supply of government arms, ammunition and important information to militants and insurgents?" (Ijeoma, 2015). Such cases are a major indicator of how corruption affects the normal citizens and business organizations; it is, therefore, the role of forensic accounting to be effectively applied in order to restore both the private and public enterprises.

Theoretically, Krambia-Kapardis (2002) argues that testing the extent of congruency of financial information is essential in establishing good perception in the real-world scenario. White collar theory is the effective theory in regards to understanding the role of forensic accounting in law enforcement. Walker & Stockdale (2015) show that white collar theory promotes the building of prior studies and the establishment of a conceptual framework which correlates management and criminal behaviour. White collar crime refers to the crime that is committed by an individual of high economic class and is respectable in its field of occupation (Rubin and Kelly, 2005). Regarding the concept of white-collar crime, it is important to take note of the respectability as it is precisely used in correlation with the law enforcement perspective. Therefore, the common notion that an individual of a higher social class cannot take part in a

crime is unfortunate and evident. Krambia-Kapardis (2002) applied the theory of white-collar job in refuting criminality theories which are class based. The stipulated deficiencies have affected white-collar crime rendering them impotent and sociology based. It is, therefore, fundamental to link the white-collar crime theory to forensic accounting to eliminate such deficiencies.

Winer & Roule (2002) in their study further stress that the deficiencies have rendered such white-collar crimes to be correlated with sociological theories, which, in the real sense, is a contradiction. There is a minimal linkage between the two types of theories as sociology and criminality differ, and each aspect should be considered on its own. One important theory of white-collar crime is the differential association theory which profoundly focuses on white crimes and whose generality is a bordering aspect on platitudinous restatement focused on social learning (Salleh et al., 2011). Almost all white-collar offenders belong to the category of class inequality and life privilege. An estimation carried out in the United Kingdom indicates that many white-collar offenders are not reported in any case, they are detected and, additionally, they are not detected in most cases due to their class (Salleh et al., 2011). It is based on such perspective that forensic accounting is founded to ensure that such individuals are evicted and that transparency is enhanced. The detection is minimal due to their social class which needs experienced and highly trained investigator or examiner in forestalling the occurrence. Therefore, efficient correlation and linkage of white-collar theory and forensic accounting is the critical solution in corruption-based crimes in the United Kingdom.

Methodology

This section mainly focuses on methods applied in data collection which are aimed towards answering the research questions and achieving the stipulated objectives. It is mainly composed of different procedures, target population, and instruments applied to provide accurate and reliable data. In conducting the research, both primary and secondary methods were applied. According to Aduwo (2016), primary research methods are a way of data collection which involves the compilation of primary information directly from the source. It is the most accurate data collection method since there is a provision of immediate data. On the other hand, secondary methods involve the data that is obtained from a primary source, especially peer-reviewed journals or books. In the collection of primary data, interviews were conducted while documentations, journal articles, and books were used.

In collecting primary data, two interviews were conducted through interviews via Skype. Both of the interviews were focused on senior forensic accountants who had adequate knowledge regarding the role of forensic accounting in the United Kingdom. Choosing the senior managers as the target population was important since it offered the researcher the opportunity to collect accurate information due to the seniority of the forensic accountants. Consequently, choosing senior managers was crucial since it enabled the researcher to understand the root of forensic accounting and its implications. The interviews were conducted in different regions in the United Kingdom to ensure that information collected is diverse and to justify the emphasis by Zango (2012) that the more the information gathering is done in different regions the effective the research becomes. The interview was conducted in two phases. The first phase involved four seniors forensic from the first region. The second one also involved four senior forensic

accountants but from a different region, amounting to a total of eight forensic accountants.

In determining the seniority of the accountants, those individuals who had taken at least twenty years in the field were considered. Consequently, to ensure that the research was accurate and the content was understood, the researcher conducted a content analysis. Consequently, reliability and validity tests were conducted. In conducting such tests, a pilot study was employed to adhere to the justification by Burgess et al. (2016) that it is essential in establishing the effectiveness of research. Also, while administering content analysis, content validity index was applied. The CVI ranged between 0.5 to 1 to justify the claim by Burgess et al. (2016) that CVI for effective research conducted through an interview should not be less than 0.4. It, therefore, means that the research was effective as no value below 0.5 was recorded.

More importantly, in ensuring the research was effective, the interview questions were discussed between the researchers and the senior forensic accountants without any added party who could interfere with the research. Some of the common questions that were addressed through the interviews include are in appendix A.

In collecting secondary data, a qualitative analysis was applied. The analysis was based on a case study in the United Kingdom. In conducting of secondary data collection, a lot of precaution was taken as only credible sources were focused on. In ensuring that the credibility of sources was enhanced, the publication time, as well as the authors, were heavily considered. The sources used in the secondary data collection were peer-reviewed by schematic scholars, specifically within the field of forensic accounting and law enforcement. Also, in collecting the data, one aspect which was given a priority was publication data. Publications were considered through focusing on the subsequent articles published recently in order to prevent the reliance on outdated sources.

Using case study as one method of secondary data collection was crucial to intensively show the role forensic accounting has in enforcing the law in the United Kingdom. This is to enhance the justification by Yin (2014) that the best method of collecting secondary data is through the application of the case study. A case study is important since the data is not easily manipulated due to the research paradigm. Also, the manipulation is mitigated due to the availability of the secondary source which can be retrieved anytime an individual wish to (Albrecht, Albrecht, and Albrecht, 2008). The case study offered an opportunity for enhancement of stability and dependability and related to the research since it involves the application of the law which requires consistency and reliability. The case study applied to the data collection was also effective as it involved the United Kingdom as one of the countries known to emphasize forensic accounting as a way of corruption elimination. The two methods applied in data collection were effective due to the ability to determine the validity and reliability of data collected. The expert is not focused on the provision of testimony but specifically concerned within the stipulated framework of general standards and rules. Other than putting more focus on testification, the expert helps the counsel on the provision of expertise.

In the United Kingdom, the function of consulting an expert in the field of forensic accounting has become commonplace, irrespective of being underutilized. More importantly, there are various attorneys who have appreciated the manner in which the forensic accountants assist in the elimination of white-collar crimes, especially from the defence perspective. The

forensic accountants have become the creative weapons of the attorneys. Also, secret keeping has become one of the fundamental roles of the forensic accountants in assisting for the law enforcement in the United Kingdom.

From the research conducted, it was also discovered that almost all the forensic accountants are members of Certified Public Accountants with the difference in training experiences, accounting principles, rules, methodologies, and procedures. In a number of matters regarding litigation and mostly those related to frauds, it is crucial for the council to understand and account for every client. Such expertise has various roles in making sure the situations and allegations of financial statements are resolved.

Data Analysis and Findings

From the research conducted through interviews and case studies, it was discovered that forensic accounting plays a crucial role in enhancing law enforcement in the United Kingdom. More importantly, most of the senior forensic accountants heavily focused on the litigation support roles. It was discovered that forensic accounting had developed thoroughly over the last sixteen years, and it has played a crucial role in law enforcement, especially the litigation support roles. According to Gaffikin (2009), accountants are taking various roles which are common, viable and valuable in making sure that the financial issues in the United Kingdom are effectively mitigated. The accountants take this advantage and focus on the aspects and roles of different attorneys in making sure that the financial aid issues are effectively resolved.

Some of the major roles that were discovered from the research are divided into two, namely the consulting and the testifying roles. In playing the part of testifying before the court of law, the forensic accountant is used as a report builder. In other words, the expert provides a testimonial aspect of concerning the topic that is under study. All his work is oriented towards the provision of sufficient evidence regarding financial issues. The work must follow the normal rules of testification without any limited aspect (Kovalerchuk, Vityaev, and Holtfreter, 2007). From such perspective, it is, therefore, evident that forensic accountant, especially consulting experts, play a crucial role in enhancing law enforcement in the United Kingdom

From the interviews regarding the eight senior accountants, it was also discovered that the forensic accountants play an essential role and are directly relevant to issues where there were stipulated misconducts that impacted organizational financial statements. Some of the roles that are directly associated with forensic accounting in the United Kingdom include money laundering, securities fraud, and government contracting among others. Also, forensic accounting plays a crucial role in the calculation of disgorgement in determining losses under the sentencing guidelines in the United Kingdom.

Consequently, through the internal controls and collection of secondary data, it was discovered that the forensic accountants play a crucial role in the monitoring of internal legal controls, which further enhances reduction of corruption as evidenced in the table provided by the UK government from 2010 to 2017.

Year	Rate of financial fraud before intensive	Number of organizations analysed
2010	23.5%	234
2011	22.12%	200
2012	20%	236
2013	18.7%	211
2014	16%	215
2017	5%	239

Table 1: Financial frauds and forensic accounting.

From the table provided, it is evident that the rate of financial fraud is intensively decreasing due to the improved forensic accounting through internal control. In every organization, there is always an internal control which plays a crucial role in enhancing security. The internal control is not only essential for the company itself but the security of the employees as well. According to Odueke (2017), in fulfilling the objective of the law enforcement, forensic accountants have made sure there is an evolution into the primary manner in which the organizations detect and prevent fraud. It is through the role of internal control that the forensic accountants through stipulated requirements and regulations focus on promoting financial security and assistance. Internal control as another role of the forensic accountant is risk-based to make sure its effectiveness of the organization is maximised as well as conserving the maximization costs.

In conducting the internal control, the essential role regarding law enforcement, the forensic accountants carry out two main aspects, namely the effectiveness and the design assessments. In design assessment, forensic accountants ensure that the law is followed fully through focusing on the overall design of a control structure. In other words, the design caters for various risks that are caused due to unlawful practices inclusive of financial disruptions. On the other hand, effectiveness assessment is also important since it focuses on how effective the organization is regarding adherence to the law. It is based on the two assessment criteria that law enforcement in the United Kingdom has been enhanced by the forensic accountants. The table below the number of organizations which have been impacted by forensic accounting from 2015 to 2018

Year	Number of organizations
2015	34,6008
2016	404,550
2017	490,689
2018	498,050

Table 2: Forensic accounting and UK organizations.

It was also discovered that forensic accountants promote ethic programs as well as corporate compliance in the United Kingdom. Through such ethics programs and corporate compliance, financial frauds, as well as breaches, are fully mitigated. According to Collier & Spaul (2012), corporate compliance is one aspect that is adhered to by various organizations and is one area where transparency is required. It is through the focus put in place by the forensic accountants that the organizations adhere to the stipulated corporate compliance. More

importantly, it was discovered that the effectiveness and the design of the corporate compliance, as well as the ethics programs of the organization, have the main purpose in resolution and reporting of matters regarding misconduct or corporate fraud. It was also determined that auditing and monitoring in the detection of criminal conduct is one aim of ethics programs and corporate compliance, and these tasks are specifically carried out by forensic accountants.

According to Collier & Spaul (2016), monitoring and auditing is not specifically based on benefiting the organization in terms of financial records yet enables enforcement of the law to eradicate the common problem of financial fraud. It was noted that a number of forensic accountants come from the higher ranks of law enforcement and, therefore, effectively carries out the essential role of monitoring and auditing. Out of the eight senior accountants interviewed, it was discovered that six of them were promoted from higher enforcement rank which further enabled them to carry out their functions effectively in the United Kingdom. According to Ney et al. (2013), due to the experience that the accountants have, they are capable of planning and conducting their responsibilities with much credibility and assistance from the government through application of different tools and different investigation techniques.

Experience in law enforcement also enables the forensic accountants to work independently without the assistance of various experts such as agents and the counsel who is likely to interfere with the operations. In cases where the accountants lack experience regarding law enforcement, their understanding is enhanced through training from Association of Fraud Examiners (AFE) which offers different credentials to ensure that the forensic accountants are liable and capable of making sure the law is adhered to effectively.

Finally, it was discovered that forensic accountants go through intensive interviews by the attorneys to ensure that their investigative skills are monitored. One of the types of interviews conducted is the deposition interview. According to DiGabriel (2011), deposition interview refers to the one that is conducted strategically for the investigators to ensure that they can comply with various stipulated investigation standards. The deposition skills enable the accountants to have a good foundation and supplement other skills that the forensic accountants have, making them effectively carry out their duties. Based on the given results, it was noticed that one fundamental aspect that has restored security and mitigated corruption in the United Kingdom is the application of forensic accounting.

Conclusion

The rapid growth of forensic accounting, an area concerned with the prevention and detection of criminal activities, especially the white-collar criminals and financial fraud, has been intensified by the law enforcement bodies in the United Kingdom. For development and investment of a country, cracking down on white-collar criminals was conducted. From the research conducted through interviews and case studies, it was discovered that forensic accounting plays a crucial role in enhancing law enforcement in the United Kingdom. More importantly, it was determined that the effectiveness and the design of the corporate compliance, as well as the ethics program of the organization, have the main purpose in resolution and reporting of matters regarding misconduct or corporate fraud. It was also ascertained that auditing and monitoring in the detection of criminal conduct is one aim of ethics programs and corporate compliance, and these tasks are specifically carried out by forensic accountants.

References

- Albrecht, W.S., Albrecht, C. and Albrecht, C.C. 2008. Current trends in fraud and its detection. *Information Security Journal: A Global Perspective*, **17**(1), pp.2-12.
- Bhasin, M.L. 2013. Corporate governance and forensic accountant: An exploratory study. *Journal Accounting Business and Management-International*, **20**(2), pp. 48-69
- Bhasin, M.L. 2015. An empirical investigation of the relevant skills of forensic accountants: experience of a developing economy. *European Journal of Accounting Auditing and Finance Research*, **1**(2), pp. 11-52.
- Boden, R., Cox, D., Georghiou, L. and Barker, K. 2001. Administrative reform of United Kingdom government research establishments: case studies of new organisational forms. *NATO Science Series 4 Science And Technology Policy*, **34**, pp.77-96.
- Bologna, G.J. and Lindquist, R.J., 1995. *Fraud auditing and forensic accounting: new tools and techniques*. New York: Wiley
- Bozec, Y. and Laurin, C. 2008. Large shareholder entrenchment and performance: empirical evidence from Canada. *Journal of Business Finance & Accounting*, **35**(1-2), pp.25-49.
- Burchell, S., Clubb, C. and Hopwood, A.G. 1985. Accounting in its social context: towards a history of value added in the United Kingdom. *Accounting, Organizations and Society*, **10**(4), pp.381-413.
- Burgess, S., Burrows, O., Godin, A., Kinsella, S. and Millard, S., 2016. *A dynamic model of financial balances for the United Kingdom*. Bank of England, Working Paper No. 614. [Online] Available at <http://dx.doi.org/10.2139/ssrn.2835386>. [Accessed 15/9/2018].
- Carcello, J.V. and Li, C. 2013. Costs and benefits of requiring an engagement partner signature: Recent experience in the United Kingdom. *The Accounting Review*, **88**(5), pp.1511-1546.
- Collier, P.A. and Spaul, B.J. 1992. Forensic science against computer crime in the United Kingdom. *Journal of the Forensic Science Society*, **32**(1), pp.27-34.
- Cowper, J. and Samuels, M., 1997. Performance benchmarking in the public sector: The United Kingdom experience. *Benchmarking, Evaluation and Strategic Management in the Public Sector*, pp.11-38.
- DiGabriele, J.A. 2011. Revisiting the integration of forensic accounting and the auditing paradigm. *Forensic Examiner*, **20**(2), pp. 70-73.
- Gaffikin, M. 2009. Education for an accounting profession. *Pacific Accounting Review*, **21**(2), pp.170-185.
- Glatt, M.M. 1962. The abuse of barbiturates in the United Kingdom. *UNODC Bull Narc*, **2**, pp.19-38.
- Golden, T.W., Skalak, S.L., Clayton, M.M. and Pill, J.S., 2011. *A guide to forensic accounting investigation*. NJ: John Wiley & Sons.
- Gray, O.R. and Moussalli, S.D. 2006. Forensic Accounting and Auditing United again: A historical perspective. *Journal of Business Issues*, **2**, pp. 15-25
- Ijeoma, N.B. 2015. Empirical analysis on the use of forensic accounting techniques in curbing creative accounting. *International Journal of Economics, Commerce and Management*, **3**(1), pp. 1-15.
- Kennedy, A. 2007. An evaluation of the recovery of criminal proceeds in the United Kingdom. *Journal of Money Laundering Control*, **10**(1), pp.33-46.
- Kovalerchuk, B., Vityaev, E. and Holtfreter, R. 2007. Correlation of complex evidence in forensic accounting using data mining. *Journal of Forensic Accounting*, **8**(1), pp. 1-35.
- Krambia-Kapardis, M. 2002. A fraud detection model: A must for auditors. *Journal of Financial*

- Regulation and Compliance*, **10**(3), pp.266-278.
- Muehlmann, B., Burnaby, P.A. and Howe, M.A. 2012. The use of forensic accounting experts in tax cases as identified in court opinions. *Journal of Forensic & Investigative Accounting*, **4**(2), pp. 1-34
- Neu, D., Everett, J., Rahaman, A.S. and Martinez, D., 2013. Accounting and networks of corruption. *Accounting, Organizations and Society*, **38**(6-7), pp.505-524.
- Nigrini, M., 2011. *Forensic analytics: methods and techniques for forensic accounting investigations* (Vol. 558). NJ: John Wiley & Sons.
- Nigrini, M., 2012. *Benford's Law: Applications for forensic accounting, auditing, and fraud detection* (Vol. 586). NJ: John Wiley & Sons.
- Odueke, A. and Weir, G., 2012. Triage in forensic accounting using zipf's law. In: *Issues in Cybercrime, Security and Digital Forensics*. Glasgow: University of Strathclyde Publishing, pp. 33-43.
- Ozili, P. 2015. Forensic accounting and fraud: a review of literature and policy implications. *International Journal of Accounting and Economics Studies*, **3**(1), pp. 63-68.
- Özkul, F.U. and Pamukçu, A., 2012. Fraud detection and forensic accounting. In: *Emerging fraud*. Berlin: Springer, pp. 19-41.
- Popoola, O., Che-Ahmad, A. and Samsudin, R., 2014. Impact of task performance fraud risk assessment on forensic skills and mindsets: Experience from Nigeria. *International Journal of Business and Social Science*, **5**(9), pp. 1-9.
- Prato, T. (2005). Accounting for uncertainty in making species protection decisions. *Conservation Biology*, **19**(3), pp.806-814.
- Rubin, I.S. and Kelly, J., 2005. Budget and accounting reforms. In: Ferlie, E., Lynn, L. E. Jr., and Pollitt, C. eds. *The Oxford handbook of public management*.
- Salleh, S.I.M., Gardner, J.C., Sulong, Z. and McGowan, C.B. 2011. The interpretation of "in context" verbal probability expressions used in International Accounting Standards: a comparison of English and Chinese students studying at English speaking universities. *Journal of International Education Research*, **7**(2), p.67.
- Singleton, T.W. and Singleton, A.J., 2010. *Fraud auditing and forensic accounting* (Vol. 11). New Jersey: John Wiley & Sons.
- Smith, G.S. and Crumbley, D.L. 2009. Defining a forensic audit. *Journal of Digital Forensics, Security and Law*, **4**(1), p.3.
- Smith, G.S. 2015. The past, present, and future of forensic accounting. *The CPA Journal*, **85**(3), p.16.
- Tian, C., Gregersen, P.K. and Seldin, M.F. 2008. Accounting for ancestry: population substructure and genome-wide association studies. *Human molecular genetics*, **17**(R2), pp.R143-R150.
- Walker, C. and Stockdale, R. 1995. Forensic evidence and terrorist trials in the United Kingdom. *The Cambridge Law Journal*, **54**(1), pp.69-99.
- Will, S., Handelman, S. and Brotherton, D. eds., 2012. *How they got away with it: White collar criminals and the financial meltdown*. New York: Columbia University Press.
- Winer, J.M. and Roule, T.J., 2002. Fighting terrorist finance. *Survival*, **44**(3), pp.87-104.
- Zango, A., 2012. *The relevance of forensic accounting education in financial reporting*. [Online] Available at <http://dx.doi.org/10.2139/ssrn.2193962> [Accessed 15/9/2018].