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AWOLOWO, Ifedapo, ABIDOYE, Adenike and CHAN, Dora

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**Reshaping the credibility of audits for the new normal – a forensic accounting
skillsets agenda**

Dr Francis Awolowo

Sheffield Hallam University

Adenike Abidoye

Sheffield Hallam University

Dora Chan

Sheffield Hallam University

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Abstract

The high-profile cases of accounting scandals such as Wirecard, Tesco, Toshiba and HIH have embarrassed the accounting profession. The inability of auditors to detect these massive frauds has compounded the problem, which will likely increase in the new normal due to remote working. Auditors' roles and responsibilities have been questioned due to these frauds. As the world transitions into a remote working environment, the likelihood of accounting scandals increasing is imminent. This paper explores how the reshaping of auditors' education through forensic accounting skill sets can help increase the chances of fraud detection in the new normal. Forensic accounting with technology-assisted audit techniques can help reduce the incidence of financial statement fraud and help restore investors' confidence in the financial reporting process in the new normal.

Contextual background

The past two decades have seen a ramp-up in high-profile accounting scandals (e.g., Enron, Toshiba, Parmalat, HIH, 1MDB, Carillion and Wirecard) that have rocked financial markets and the economic wellbeing of nations. These accounting scandals have profoundly impacted governments' regulation of financial markets, resulting in legislation on governance, corporate disclosures, and audit requirements.

The 2002 Sarbanes-Oxley (SOX) Act of the United States is the most renowned of such legislation. Not surprisingly, the SOX Act has shaped the way audits are conducted and the accountability of auditors to avoid litigation risk (Duguay, Minnis, & Sutherland, 2020; Kim, Dandu, & Iren, 2019). In addition, audits, fraud, and financial statement reporting concerns have been researched from diverse perspectives.

For instance, research has examined audit quality indicators to determine the factors impacting the quality of financial statement audits in various jurisdictions (see DeFond & Zhang, 2014; Detzen & Gold, 2021; Knechel, Krishnan, Pevzner, Shefchik, & Velury, 2013). Others have investigated auditors and directors'

roles in financial statement fraud (Farber, 2005; Garrow & Awolowo, 2018; Hoos, Saad, & Lesage, 2018; Marcel & Cowen, 2014).

The contributions of academia in these fields have shaped (exploded) audit quality and the value of audits to the economic wellbeing of society (Bulau, 2021; Hay & Cordery, 2021). Undoubtedly, the rapid explosion of business and digital social platforms presents a challenge for commensurate agility in conducting financial statement audits in this new era (Müller, 2021; Otia & Bracci, 2022). This challenge of a shift to digital business implies an opportunity for auditors to embrace technology-enabled tools to improve audit quality (Sharma, Sharma, Joshi, & Sharma, 2022).

As (Ruggiero, 2022) puts it, technological advancements create an avenue for fraud because the solution technology offers generates “blind spots where conduct ceases to be precisely linked to the effects it causes” (p. 217). In other words, with more businesses primed on technology, there is a higher likelihood of fraudulent activities permeating undetected in the virtual sphere. A good example of a technology-enabled fraud is the recent collapse of Greensill Capital (Bloomberg, 2021).

Greensill Capital flaunted the use of technology to facilitate short-term loans to businesses to reduce credit terms on actual sales with their buyers (De Paoli & Rocks, 2021). The loans were backed by investors and covered by insurers. However, behind this supply-chain intervention, Greensill used artificial intelligence to predict future sales. With the predicted sales, Greensill obtained loans from investors fraudulently without actual sale transactions. The course of events changed during the pandemic when insurers refused to renew their coverage amid what De Paoli and Rocks (2021) referred to as Greensill Capital’s ‘fatal crisis of confidence’ with German regulators.

It is noteworthy that the external auditors did not detect these technology-enabled fraudulent practices in the company (BBC, 2021). As it is, the auditors gave the company a clean bill of health through unqualified audit reports over the years. Consequently, globalisation, technological advancement, digitalisation,

borderless fraud schemes and remote working require a step-change in how audits can continue to protect stakeholders' interests, adding value to the future (Raphael, 2017).

Some progress has been made around corporate governance to protect investors and the financial market (e.g., the latest UK Corporate Governance Code (UK CGC, 2018)). Notwithstanding, the information asymmetry between organisation management and shareholders (Jensen & Meckling, 1976) remains a principal trust factor in ascertaining the completeness, truthfulness, and balance of financial reports (Rezaee & Crumbley, 2007; Rodgers, Guiral, & Gonzalo, 2019).

This information asymmetry places auditors in a strategic position to mediate the trust gap between shareholders and organisation leaders (Awolowo, 2019). Nevertheless, audit quality has remained a concern, with new failed audits coming into the limelight. This undermines the relevance of auditors' professional opinion to investors, creditors, and capital market decisions.

For instance, Germany's Wirecard fraud case shows the lapses in audits conducted by Ernst and Young (EY) over the course of ten years (Storbeck, 2021). Also, the Carillion fraud scandal in the United Kingdom (UK) reveals the unprofessional performance of KPMG on audits carried out over a period of nineteen years (Plimmer, 2018; Jolly, 2022; Izza, 2019). The depth of the Carillion collapse into the UK's public sector ecosystem has sparked an awakening into the need for deliberate interventions into corporate governance and audits; through regulatory reformations that may revolutionise the audit industry as we know it in the UK (BEIS, 2021; Coffee, 2019; Syal, 2020).

Auditors are familiar with their audit processes and practices. As Rezaee and Crumbley (2007 p.46) stated,

“Many audit failures are not because of a failure to apply necessary audit procedures or because of misapplication of audit procedures. Deficiencies in the performance of audits do not cause the failures – they are caused by errors in interpreting the significance of the underlying issues.”

This means that even with client industry experience, audits can become a formality, losing the cogency of auditors' role as independent trust mediators: who act on behalf of the owners and potential investors of the

organisation. Arguably, the issue with failing audits is not in the audit process but in auditors' competency to uncover fraudulent practices from all information and financial transactions of an organisation.

The opportunities to commit fraud in organisations are endless. Moreso, the rising connectedness of social and occupational worlds through technological development can enable fraudulent practices across the geographical divide. Then again, there is the current global direction towards embracing 'work from home' or hybrid or remote work patterns as part of normal business and organisational practices. Hence, the disconnection from a traditional work environment may present an open book to fraud possibilities that may not be fully recognised in the immediate post-pandemic era (De', Pandey, & Pal, 2020).

Traditionally, a work environment tends to present a sense of ethical uprightness in employees which, can curtail behavioural excesses that incline towards unprofessional practices. In other words, people tend to conform to professional standards or expectations when they sense the presence of others within a watchful distance (Al Halbusi, Williams, Ramayah, Aldieri, & Vinci, 2021). A possible challenge with the "work from home" or remote work culture may arise from the sense of 'individualism' that tends to set in when workers are isolated from an office community (Hanes, 2013). This can be present in several ways; within an organisation, from employees and management perspective, or with an external party, between the client organisation and its service providers. Taken in the context of client organisations and service providers, remote working poses a challenge to conventional financial statement auditing (Sharma et al., 2022).

Shift from conventional auditing to technology-enabled audits

The shift from conventional auditing has been evolving for some time now. This is particularly visible in audits of multinational corporations with global business presence. For such audits, the audit exercise is 'geographically distributed' to cover each location where the multinational company conducts its business operation (Hanes, 2013; Sharma et al., 2022). This means that the concept of 'auditing at a "distance"' is not necessarily a new phenomenon arising because of post-pandemic organisational adjustments. Nevertheless, the reality of its prevalence, the implications to audit quality, and the new wave of fraud

vulnerabilities in the current dispensation make distant auditing a relevant developing issue (Sharma et al., 2022).

Matching the expansion of multinational businesses in the rapid growth in globalisation and technological advancements over the past two decades. Auditors have since relied on technology to facilitate their access to data, conducting interviews and management reviews as part of their audit arrangement with multinational clients. While this can be recognised as transformational business improvement practices, the complexities of remote work can heighten the tendency for suboptimal audit performance (Fischer, 2020; Hanes, 2013). Moreover, Fisher (2020) argues that audit practices in a conventional state cannot be deployed ‘as is’ into a remote audit environment.

Sharma et al. (2022) explored audit seniors’ perceptions to understand the pandemic lockdown’s challenges and the resort to technology for auditing processes. Their findings reveal that auditors are more inclined to embrace technology enablement for audit processes post-pandemic. Further, they found this acceptance for technology-enabled audits across all categories of audit firms (i.e., the top 4 and others). Sharma et al. (2022) and Fisher (2020) align on the need for modifications and process redesign for technology-enabled audits to uncover fraud successfully as part of auditors’ assurance responsibility to shareholders.

Auditing and the challenge of remote and hybrid working

The mandate of auditors to provide comfort to investors and creditors on an organisation’s financial integrity remains unchanged, whether in a conventional or remote auditing arrangement. As part of this mandate, auditors are expected to attest to the absence of material misstatements in an organisation’s financial report (Awolowo, 2019). If auditors fail to identify such misstatements, the client organisation is severely exposed to capital market reactions: which may lead to shareholder value erosion or irredeemable corporation collapse (Awolowo, 2019). Such were the cases of HIH (Australia), Enron (United States), Parmalat (Italy), Olympus (Japan), Wirecard (Germany), Tesco, BHS, and Carillion (United Kingdom). Like a conventional audit premise, the concerns of auditors’ competency in identifying and subsequently

reporting financial statement fraud are prevalent in this new dispensation of remote and hybrid working (Sharma et al., 2022).

As earlier established from Rezaee and Crumbley's (2007) explicit definition, audit failures can be attributed to an erroneous judgement call on a client organisation's data and documents on the part of auditors. Hence, for remote audits, the detachment from client location and source of data can reduce the tendency of auditors to probe or critically evaluate the underlying context of client financial activities. On the other hand, Sharma et al. (2022) suggest that the use of technology facilitates audit quality through effective and efficient client interviews and evidence gathering. Notwithstanding, the ease of conducting interviews or gathering information does not imply competency in probing and interpreting financial and non-financial information.

Conceptualising the competency perspective, Hanes (2013) argues that the mechanisms of remote auditing require a carefully considered strategy that outweighs auditors' inclination towards a 'status quo' disposition to the audit process. For this to happen, Hanes (2013) suggests concerted efforts in the area of 'communication and coordination, knowledge sharing, work design and social identity.

While these four concepts have been evaluated from auditors' perspectives in diverse geographical jurisdictions, they remain representative in understanding the key challenges of auditing an organisation in a remote working environment. Nevertheless, without disregarding the viewpoints of Hanes (2013), Rezaee and Crumbley (2007) and Sharma et al. (2022), this paper argues that auditors need forensic accounting education to improve their competency in fraud detection in the new normal.

In sum, the discourse on auditors' credibility regarding fraud detection in audits precedes the global pandemic. With the continued spate of high-profile fraud-led corporation collapses, academics have consistently investigated the causes and effects of poor audit quality and its effect on society (see Awolowo, 2019; Coffee, 2019; DeFond & Zhang, 2014; Rodgers, Guiral, & Gonzalo, 2019). With the upsurge in digitalisation of businesses and the increased shift to remote working post-pandemic (De'et al., 2020), the

sufficiency of auditors' training to detect financial statement fraud remains relevant to achieving high-quality audits.

This explains the need for more than technology to improve auditors' credibility in fraud detection. Consequently, we argue that equipped with appropriate forensic accounting skillsets, auditors will be better positioned to probe the underlying context of client financial transactions and make accurate judgement calls on client management information.

The need for more than technology enablement

Several recent studies have investigated using technology-enabled methods, such as artificial intelligence, data analytics and machine learning, to detect financial statement fraud. For instance, Goh, Lee, Pan, and Seow (2021) examined the application of cluster analysis implemented on Tableau software to detect irregular patterns in large and complex data. The authors recognised that discovering irregular patterns or transactions does not automatically indicate fraudulent practices. Consistent with Rezaee's (2007) assertion, the authors suggest the need for further critical evaluation of the details to reveal the underlying context of the transaction before concluding the legitimacy of fraud.

The use of data analytics in audits appears to improve efficiency, reducing cost and time for auditors and their clients. In a synthesis of existing literature on the use of data analytics in audits, Li (2022) discussed auditors' mindsets and the potential challenges of technology-enabled techniques to audit practice. The author asserts that analysing textual information (for instance, email messages) from client organisations can be challenging for auditors because of the multiplicity of interpretations. Hence, by not having the skills to decipher possible context from the textual information, auditors can restrict the use of data analytics to just numeric data analysis (financial entries). As a result, they miss the opportunity to gain a wider range of insight into the underlying drivers of client management activities. Ultimately, utilising data analytics in such cases cannot be said to have been optimally deployed to detect fraudulent practices.

Also, Craja, Kim, and Lessmann (2020) also studied the use of advanced textual analysis system (a deep learning model) to extract textual information that predicts underlying fraudulent content and context in management communication. The authors established that textual analytical techniques could increase the detection of red flags or fraudulent tendencies in management information at various levels of impact. While these are laudable developments, formulating the programming rules and algorithms to facilitate the accurate detection of abnormalities requires the specialised competency of forensic experts (Hedley & Girgenti, 2021).

In essence, technology-enabled models and techniques are not autonomous to successfully uncover, probe and critically evaluate numerical and textual information irregularities. Auditors need to have the capacity to “ think more broadly and incorporate information from a variety of sources ... to improve audit quality...” (Griffith, Hammersley, Kadous, & Young, 2015). This means that, for technology to be effective, auditors must possess forensic accounting skillsets to be able to interpret, analyse and establish an accurate basis for their professional opinion.

A call for forensic accounting skillsets

Forensic accounting is a multi-disciplinary field of study, with distinct skill sets culled from its background disciplines of accounting, criminology, auditing, finance, psychology and information technology. By virtue of its connection with law enforcement and duty towards the court in its expert witness services, forensic accountants possess a differentiating competency in investigative and analytical skillsets (Awolowo, 2019; DiGabriele, 2009). This means that forensic accounting training specialises in identifying, analysing, interviewing, interpreting, connecting and confirming evidence of fraudulent practices. Consequently, forensic accounting skillsets are strategic to detecting and reporting fraud both in a conventional audit environment and for the post-pandemic remote working dispensation.

Over the last two decades, the report to the Nations published by The Association of Certified Fraud Examiners (ACFE) has reported that external auditors rarely discover fraud in financial reports (ACFE,

2020). In fact, of the 2504 fraud cases ACFE (2020) examined, external auditors, are reported to have only detected fraud in 4% of the cases. Therefore, it is unsurprising that auditors' credibility continues to be questioned over the continued spate of audit failures in the UK. Thus, for audits to flourish in the new dispensation of remote and hybrid work arrangements, the auditing profession must rise to the challenge of restoring their credibility. Therefore, training auditors in fraud detection skills become a significant milestone in changing the narratives on auditors' competency and restoring investors' confidence in the financial reporting process (Awolowo, 2019).

Kramer, Seda and Bobashev (2017) surveyed academics and forensic accounting practitioners in the US to determine recent opinions on forensic accounting education. The respondents were aligned in favour of incorporating forensic accounting modules in the accounting programme. This appears to attest to the realisation of a gap in auditors' education in fraud detection skillsets. Supporting this stance, one of the respondents expressed that forensic accounting should be "a necessary part of every auditor's education ..." (p. 254). Also, a respondent commented that "it is ... important to increase awareness ... strengthen ... forensic accounting knowledge of students entering the field of accounting, and ... should be mandatory.." (p. 256). Another expressed that "forensic accounting will add value to the quality of auditing" (p. 261).

In another US-based study, Plumlee, Rixom and Rosman (2015) tested the effect of training auditors in creative and analytical thinking skills on their performance in reasoning when faced with abnormalities. Their study revealed that auditors exposed to creative and analytical thinking processes have better problem-solving capabilities. This makes auditors more thorough in sifting through possible explanations to get to the facts of an enquiry. Furthermore, Plumlee et al. (2015) argue that training auditors in these cognitive thinking skills increase their reasoning capacity, ultimately enhancing their effectiveness in brainstorming sessions. In other words, having the right skillsets to engage in a qualitative brainstorming session is important to fraud risk evaluation in audits.

Rose et al. (2020) further reinforce the need for auditors to have the right skillsets to detect fraud. In an experiment involving senior auditors, the authors investigated the likelihood of auditors deferring to client

management's explanations when asked to generate plausible scenarios for assessing fraud risk. Their study revealed that auditors find generating multiple plausible reasoning challenging when brainstorming. This means that auditors tend to accept client management explanations for anomalies rather than objectively exploring other possibilities. This is not surprising in that traditional audit education, and training are limited in their capacity towards cognitive thinking skills (Plumlee et al., 2015). Consequently, the implications of a narrow scope of plausible reasoning in fraud risk assessments, leading to auditors' unquestioning acceptance of management information, can be seen in retrospect when audits fail.

The findings of Kramer et al. (2017), Plumlee et al. (2015), and Rose et al. (2020) are consistent with earlier studies into the value of forensic accounting skillsets to financial statement audits. For instance, Carpenter, Durtschi and Gaynor (2011) conducted a longitudinal study of Master's level students in the US, who attended a forensic accounting module as part of a series of auditing courses. The study included a control group of students who had completed the same auditing courses but not the forensic module. The authors found that students with forensic accounting training exhibited a higher fraud sensitivity upon completion of the forensic accounting training. In addition, these students retained the ability to make fraud judgement calls several months after completing the course. In effect, Carpenter et al. (2011) argue that the value of forensic accounting skillsets to auditing education is sustainable for fraud detection.

Also, Brazel, Carpenter and Jenkins (2010) tested the effect of the quality of auditors' brainstorming on their judgements on fraud considerations. The results suggest that when auditors explore a wider scope of explanations, their reasoning in consideration of fraud is enhanced. In effect, auditors can approach the audit with more suspicion. Conversely, diminished auditing rigour may ensue when brainstorming quality is low. The outcome of Brazel et al. (2010) can be linked to the value of the right skillsets to achieve a high-quality brainstorming session which appears to be established by Plumlee et al. (2015).

Overall, the studies summarised in this section reveal several distinctive skills inherent in forensic accounting training and can improve auditors' competency in fraud detection. Interestingly, DiGabriele

(2009), from a survey of academics and forensic practitioners, articulated several distinctive skills that separate forensic accounting from conventional accounting and auditing education.

Significantly, the creative and analytical cognitive skills examined in Plumlee et al.'s (2015) study can be linked to DiGabriele's (2009) categorisation of deductive and analytical proficiency. As already established in this paper, these skills can extend the reasoning capacity of auditors such that they can think outside the box, looking beyond numbers and texts to unravel the underlying context of a client's financial activities.

In addition, having deductive and analytical proficiency can have the complementary effect of developing auditors' evaluative and problem-solving mindset. These skills can enhance auditors' capacity to probe information, identify unusual trends and patterns and separate facts from opinions. Brazel et al. (2010) and Carpenter et al. (2011) portrayed these skills in their study findings. In a remote working dispensation, critical thinking and problem-solving skills become even more significant to auditors assessing the completeness and truthfulness of client information. With this, auditors may be better tuned to bridge the physical and potential psychological detachment that may result in a complacent approach to the audit process (Hanes, 2013).

Another fundamental skill identified by DiGabriele (2009) is 'investigative flexibility'. Forensic accountants are able to follow the trail in an investigation with an open mind. This means that they can adjust their inquiring process, giving attention to details, to achieve the highest level of thoroughness. On the contrary, auditors are inclined to abide by guidelines and standard practices defined by the Generally Accepted Accounting Standards (GAAS). However, with investigative flexibility, auditors stand to complement their knowledge of the standard procedures with due attentiveness that goes beyond the motion of a checklist process. The complexity of remote auditing demands a higher degree of alertness in the audit approach (Fischer, 2020). Hence, auditors should have the bandwidth to follow through on any seemingly inconsistent transaction or information. And this can only be possible with adequate skill sets similar to those used in forensic accounting.

So far, a few key forensic accounting skill sets have been discussed. Nevertheless, Table 1 below summarises a concise view of some of the most frequently discussed skills.

Table 1:

Outline of key distinguishing forensic accounting skills to improve auditors' competency in fraud detection

DiGabriele (2009)	Davis, Ogilby, and Farrell (2010)	Bhasin (2016)
<p>Deductive analysis</p> <p>Critical thinking</p> <p>Unstructured problem-solving</p> <p>Investigative flexibility</p> <p>Analytical proficiency</p> <p>Oral and written communication skills</p> <p>Legal knowledge</p> <p>Composure</p>	<p>Oral and written communication</p> <p>Simplify information</p> <p>Critical/strategic thinking</p> <p>Investigative intuition</p> <p>Analytical and interpretive capability</p> <p>Interviewing</p> <p>Relevant legal knowledge - rules of evidence and civil procedures</p>	<p>Oral and written communication</p> <p>Investigative intuitiveness</p> <p>Organise unstructured situations & information-analytical</p> <p>Legal knowledge</p> <p>Critical/strategic thinking</p>

In summary, audits play a crucial role in the stability of the financial markets. Before the global pandemic, there were growing concerns about auditors' competency to detect and report financial statement fraud. These concerns are even more critical in the post-pandemic era due to the wider acceptance of digitalisation and a technology-centric approach to work. With more organisations embracing remote and hybrid working cultures, the changing landscape of work practices calls for reevaluating auditors' conventional auditing process. Technology has played a vital role in auditing multinational corporations with associated companies and branches in various countries and continents. With technology, auditors gain access to client

data and interviews and can exchange real-time communication without a physical presence at the client's office. Regardless, the quality of audits has remained a subject of debate owing to the failures in audits which are exposed as a result of corporation fraud scandals.

This paper has therefore contributed to the limited literature on the important role forensic accounting skill sets can play in enhancing audit quality and hence reducing financial statement fraud. This has become even more necessary in a post-pandemic environment because of the crucial role audit plays in the financial reporting process and its mediating role in an agency relationship.

Conclusion

The unrelenting series of embarrassing failed audits heighten the concerns over auditors' preparedness to plug in effectively for a wider scale of remote auditing in the new normal. Forensic technologies have been proven to support the audit process in handling large data and textual information in an efficient, timely and cost-effective way. However, technology enablement is only a step in the right direction. Auditors need to be trained with the appropriate skillsets to recognise, analyse and interpret the underlying context of irregular patterns in numeric and textual information obtained from their clients. In short, for auditors to flourish in this new dispensation, a revamp of their education and training is expedient. Consequently, equipping auditors with forensic accounting skillsets offer auditors the tools to rebuild public trust in their relevance to the economic wellbeing of the capital market.

References

- ACFE. (2020). *Report to the Nations: Global Study on Occupational Fraud and Abuse*. Association of Certified Fraud Examiners. Retrieved April 16, 2021, from <https://acfe-public.s3-us-west-2.amazonaws.com/2020-Report-to-the-Nations.pdf>
- Al Halbusi, H., Williams, K. A., Ramayah, T., Aldieri, L., & Vinci, C. P. (2021). Linking ethical leadership and ethical climate to employees' ethical behavior: the moderating role of person–organisation fit. *Personnel Review*, 50(1), 159-185. doi: 10.1108/PR-09-2019-0522
- Awolowo, I. (2019). Financial Statement Fraud: The Need for a Paradigm Shift to Forensic Accounting. doi:<https://doi.org/10.7190/shu-thesis-00230>
- BBC. (2021, June 28). *Greensill auditor under investigation by watchdog*. Retrieved from BBC: <https://www.bbc.co.uk/news/business-57634849>
- Bloomberg. (2021, September 08). *The Simple Problem That Sank Greensill's Complex Financial Empire*. Retrieved from Bloomberg: <https://www.bloomberg.com/news/features/2021-09-08/why-did-greensill-collapse-the-simple-problem-behind-the-financial-empire?leadSource=uverify%20wall>
- Brazel, J. F., Carpenter, T. D., & Jenkins, J. G. (2010). Auditors' Use of Brainstorming in the Consideration of Fraud: Reports from the Field. *The Accounting Review*, 85(4), 1273-1301. Retrieved from <https://doi.org/10.2308/accr.2010.85.4.1273>
- Bulau, V. (2021). WAYS OF MAINTAINING THE QUALITY OF FINANCIAL AUDIT IN THE CONTEXT OF VALIDATING FINANCIAL STATEMENTS. *Journal of Public Administration, Finance and Law*, 20, 181-188. doi: <https://doi.org/10.47743/jopaf-2021-20-10>
- Carpenter, T. D., Durtschi, C., & Gaynor, L. M. (2011). The Incremental Benefits of a Forensic Accounting Course on Skepticism and Fraud-Related Judgments. *Issues in Accounting Education*, 26(1), 1-21. Retrieved from <https://doi.org/10.2308/iace.2011.26.1.1>
- Coffee, J. C. (2019). Why do auditors fail? What might work? What won't? *Accounting and Business Research*, 49(5), 540-561. doi:10.1080/00014788.2019.1611715
- Craja, P., Kim, A., & Lessmann, S. (2020). Deep learning for detecting financial statement fraud. *Decision Support Systems*, 139. doi:<https://doi.org/10.1016/j.dss.2020.113421>
- De Paoli, L., & Rocks, D. (2021, September 8). *The Simple Problem That Sank Greensill's Complex Financial Empire*. Retrieved from Bloomberg UK: <https://www.bloomberg.com/news/features/2021-09-08/why-did-greensill-collapse-the-simple-problem-behind-the-financial-empire?leadSource=uverify%20wall>
- De', R., Pandey, N., & Pal, A. (2020). Impact of digital surge during Covid-19 pandemic: A viewpoint on research and practice. *International Journal of Information Management*, 55, 102171-102171. doi:<https://doi.org/10.1016/j.ijinfomgt.2020.102171>
- DeFond, M., & Zhang, J. (2014). A review of archival auditing research. *Journal of Accounting and Economics*, 58(2-3), 275-326. Retrieved from <https://doi.org/10.1016/j.jacceco.2014.09.002>

- Department for Business, Energy & Industrial Strategy (BEIS). (2021). *Restoring trust in audit and corporate governance*. OGL. Retrieved from <https://www.gov.uk/government/publications/restoring-trust-in-audit-and-corporate-governance>
- Detzen, D., & Gold, A. (2021). The different shades of audit quality: A review of the academic literature. *MAB ('s-Gravenhage. Online)*, 95(1/2), 5-15. doi:<https://doi.org/10.5117/mab.95.60608>
- DiGabriele, J. A. (2009). Fishbowl: the forensic accountant: a closer look at the skills forensic accounting education should emphasise. *Forensic Examiner*, 18(2), 77.
- Duguay, R., Minnis, M., & Sutherland, A. (2020). Regulatory Spillovers in Common Audit Markets. *Management Science*, 66(8), 3389-3411. doi:<https://doi.org/10.1287/mnsc.2019.3352>
- Farber, D. B. (2005). Restoring Trust after Fraud: Does Corporate Governance Matter? *The Accounting Review*, 80(2), 539-561. doi:<https://doi.org/10.2139/ssrn.485403>
- Fischer, S. (2020, April 16). *Responding to COVID-19: The end of the 'traditional audit'?* Retrieved June 25, 2022, from ASI Assurance: <https://www.asi-assurance.org/s/post/a111H000004oLhhUAE/p0798>
- Garrow, N., & Awolowo, I. F. (2018). Palmer & Harvey: A Case of Governance and Audit Failure. *Journal of Modern Accounting and Auditing*, 14(7), 390-398. doi:10.17265/1548-6583/2018.07.004
- Goh, C., Lee, B., Pan, G., & Seow, P. S. (2021). Forensic analytics using cluster analysis: Detecting anomalies in data. *The Journal of Corporate Accounting & Finance*, 32(2), 154-161. doi:<https://doi.org/10.1002/jcaf.22486>
- Griffith, E. E., Hammersley, J. S., Kadous, K., & Young, D. (2015). Auditor Mindsets and Audits of Complex Estimates. *Journal of Accounting Research*, 53(1), 49-77. doi:10.1111/1475-679X.12066
- Hanes, D. R. (2013). Geographically distributed audit work: Theoretical considerations and future directions. *Journal of Accounting Literature*, 32(1), 1-29. doi: 10.1016/j.acclit.2013.09.001
- Hay, D., & Cordery, C. J. (2021). Evidence about the value of financial statement audit in the public sector. *Public Money and Management*, 41(4), 304-314. doi:<https://doi.org/10.1080/09540962.2020.1729532>
- Hedley, T. P., & Girgenti, R. H. (2021). The forensic professional's perspective on fraud and fraud detection. *Journal of Financial Compliance*, 5(1), 85-93. Retrieved June 27, 2022
- Hoos, F., Saad, E. B., & Lesage, C. (2018). Why are auditors blamed when something goes wrong? Experimental evidence. *International journal of auditing*, 22(3), 422-434. doi:<https://doi.org/10.1111/ijau.12126>
- Izza, M. (2019). 'Why do auditors fail? What might work? What won't?': a practitioner view. *Accounting and Business Research*, 49(5), 562-564. doi:10.1080/00014788.2019.1611717
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360. doi:10.1016/0304-405X(76)90026-X

- Jolly, J. (2022, February 3). *KPMG being sued for £1.3bn over Carillion audit*. Retrieved from The Guardian: <https://www.theguardian.com/business/2022/feb/03/kpmg-being-sued-for-13bn-over-carillion-audit-uk-official-receiver>
- Kim, M. S., Dandu, J., & Iren, P. (2019). The effect of SOX on audit quality. *Journal of Financial Crime*, 26(3), 897-909. doi:<https://doi.org/10.1108/JFC-08-2018-0088>
- Knechel, W., Krishnan, G., Pevzner, M., Shefchik, L., & Velury, U. (2013). Audit quality: Insights from the academic literature. *Auditing : A Journal of Practice and Theory*, 32(suppl.1), 385-421. doi: <https://doi.org/10.2308/ajpt-50350>
- Kramer, B., Seda, M., & Bobashev, G. (2017). Current opinions on forensic accounting education. *Accounting research journal*, 30(3), 249-264. doi:0.1108/ARJ-06-2015-0082
- Li, X. (2022). Behavioral challenges to professional skepticism in auditors' data analytics journey. *Maandblad voor Accountancy en Bedrijfseconomie (MAB)*, 96(1/2), 27-36. doi:10.5117/mab.96.78525
- Maka, K., Pazhanirajan, S., & Mallapur, S. (2020). Selection of most significant variables to detect fraud in financial statements. *Materials Today: Proceedings*. Retrieved June 27, 2022, from <https://doi.org/10.1016/j.matpr.2020.09.613>
- Marcel, J. J., & Cowen, A. P. (2014). Cleaning house or jumping ship? Understanding board upheaval following financial fraud. *Strategic Management Journal*, 35(6), 926-937. doi:<https://doi.org/10.1002/smj.2126>
- Müller, S. (2021). *The New Ecosystem of the Digital Age: Impact of Blockchain Technology on the Accounting Environment and Financial Statement Fraud Detection*. ProQuest Dissertation Publishing.
- Otia, J. E., & Bracci, E. (2022). Digital transformation and the public sector auditing: The SAI's perspective. *Financial Accountability & Management*, 38(2), 252-280. doi:<https://doi.org/10.1111/faam.12317>
- Plimmer, G. (2018). Carillion finance director raised alarm in May. *Financial Times*. Retrieved December 17, 2020, from <https://www.ft.com/content/9543cef6-1b16-11e8-956a-43db76e69936>
- Plumlee, R. D., Rixom, B. A., & Rosman, A. J. (2015). Training Auditors to Perform Analytical Procedures Using Metacognitive Skills. *The Accounting Review*, 90(1), 351-369. doi:10.2308/accr-50856
- Raphael, J. (2017). Rethinking the audit. *Journal of Accountancy online*, 223(4), 29-32.
- Rezaee, Z., & Crumley, L. (2007). The Role of Forensic Auditing Techniques in Restoring Public Trust and Investor Confidence in Financial Information. *Forensic Examiner*, 16(1), pp. 44-49,78. Retrieved June 4, 2021, from <https://www-proquest-com.hallam.idm.oclc.org/docview/207654458/FA973A8E73E140A2PQ/3?accountid=13827>
- Rodgers, W., Guiral, A., & Gonzalo, J. A. (2019). Trusting/Distrusting Auditors' Opinions. *Sustainability*, 11(6), 1666. doi:<https://doi.org/10.3390/su11061666>

- Rose, A. M., Rose, J. M., Suh, I., & Thibodeau, J. C. (2020). Analytical Procedures: Are More Good Ideas Always Better for Audit Quality? *Behavioral Research in Accounting*, 32(1), 37-49. Retrieved from <https://doi.org/10.2308/bria-52512>
- Ruggiero, V. (2022). Justificatory narratives: The collapse of Greensill Capital. *International Journal for Crime, Justice and Social Democracy*, 11(2), 210-221. doi:<https://doi.org/10.5204/ijcsd.2019>
- Sharma, N., Sharma, G., Joshi, M., & Sharma, S. (2022). Lessons from leveraging technology in auditing during COVID-19: an emerging economy perspective. *Managerial Auditing Journal*, 37(7), 869-885. doi:<https://doi.org/10.1108/MAJ-07-2021-3267>
- Storbeck, O. (2021, October 26). *EY and Wirecard: anatomy of a flawed audit*. Retrieved from Financial Times: <https://www.ft.com/content/bcadbdcb-5cd7-487e-afdd-1e926831e9b7>
- Syal, R. (2020, January 17). *Two hospitals held up by Carillion collapse are delayed further*. Retrieved May 9, 2022, from The Guardian: <https://www.theguardian.com/society/2020/jan/17/two-hospitals-held-up-by-carillion-collapse>
- UK CGC. (2018). *The UK Corporate Governance Code*. FRC. Retrieved March 14, 2021, from <https://www.frc.org.uk/getattachment/88bd8c45-50ea-4841-95b0-d2f4f48069a2/2018-UK-Corporate-Governance-Code-FINAL.pdf>