ISSN (Print): 2788-8320 ISSN (Online): 2788-8339

JOURNAL OF SOCIAL RESEARCH DEVELOPMENT
www.jsrd.org.pk editor@jsd.org.pk

RECONCEPTUALIZING AUDIT QUALITY IN THE ERA OF ESG AND DIGITALIZATION: A VALUE ADDITION FRAMEWORK

Ozair Siddiqui[1], Muhammad Suleman Afzal[2]

[1]Faculty of Management Sciences, International Islamic University Islamabad, Islamabad
[2]International Institute of Islamic Economics (IIIE), International Islamic University Islamabad, Islamabad
Email: muhammad.suleman@iiu.edu.pk

KEYWORDS

Audit quality, digitalization, ESG, stakeholder theory, sustainability, value addition

ARTICLE HISTORY

Date of Submission: 11-03-2026
Date of Acceptance: 03-04-2026
Date of Publication: 10-04-2026

ABSTRACT

This study develops a framework to reconceptualize audit quality as a multi-dimensional mechanism for value addition. Taking support from the stakeholder concept, the paper proposes that audit quality leads to value addition for businesses through an intervening role of sustainable business practices and intervention of technology. Additionally, the presented framework acknowledges the role of institutional factors in shaping the relationship between audit quality, sustainability, technology, and value addition. The study contributes to literature by providing an integrated approach to consider the business case for the audit profession in light of evolving stakeholder expectations and modern disruptions. The framework presented also highlights potential testable avenues for scholars for empirical examinations. As such, by connecting various research streams, the current study attempts to provide a holistic understanding of audit quality in modern business era.

2026 Journal of Social Research Development

Correspondence	Muhammad Suleman Afzal
Email:	muhammad.suleman@iiu.edu.pk
DOI	https://doi.org/10.59075/jsrd.v7i2.649
Volume/Issue	**7(2), 2026, 92-111**

Introduction

Audit and assurance are central concepts in modern business ecosystem that aim at information symmetry to help with effective economic decision-making by stakeholders. To elaborate, financial audit can be seen as providing independent opinion on presented financial information (PwC, 2023), the aim of this exercise is to assess if there are material misstatements, either intentional or unintentional, in the presented information (which may impair the decision-usefulness of the information for the users). Therefore, audit reports help promote trust and transparency in the economy, ensuring that the information provided to the users by businesses is true and fair (Siddiqui

and Raheman, 2026a). Traditionally, audit was rooted in the agency concept (Jensen and Meckling, 1976) and seen purely from the investors' lens, aiming at their wealth maximization.

However, with the development of the stakeholder concept, credited to Freeman (2010), the accountability of firms is broadened to wider stakeholder groups. This modern perspective of firm accountability impacts the value relevance for audit profession. As traditionally, audit was justified as monitoring cost that helps add value for the investors by ensuring information symmetry and accountability. However, if firms are held responsible to more than just the investors, the business case of audit needs to be reassessed as well. These evolving expectations of investors and regulators regarding firm accountability are further complicated by the advancement in technology that is reshaping all aspects of the business ecosystem, including the auditing profession (Siddiqui and Raheman, 2025).

Shifting the focus to audit quality, scholars and practitioners have struggled for decades in agreeing to a universal understanding of what audit quality is. More specifically, although the purpose of audit is clear in literature and practice, the meaning of audit quality remains obscure (Djamil, 2024). For example, practitioners like the International Auditing and Assurance Standards Board (IAASB, 2014), the Public Company Accounting Oversight Board (PCAOB, 2013), and Federation of European Accountants (FEE, 2015), have attempted to explain and identify indicators of audit quality. However, literature argues that the aspects highlighted by these bodies are difficult to objectively quantify (Abdelwahed et al., 2023; Alaamri et al., 2023; Fawziah et al., 2025). Similarly, indicators identified in literature for audit quality are argued by practitioners to be shallow and segmented, that fail to capture all dimensions of audit quality (IAASB, 2014; PCAOB, 2013).

As such, acknowledging the inherent complexity of audit quality as a construct, and embedding the evolving stakeholder expectations and business ecosystem due to sustainability and technology, respectively, it is important to reassess the business case for audit. That is, it is crucial to assess how sustainability and technology, as dimensions within a unified conceptual framework, intervene and interact, respectively, with audit quality value addition (or creation) for businesses. The current study addresses this modern need by developing a framework that reconceptualizes audit quality as a multilayer driver for value addition.

This model identifies sustainable business practices as a mediating mechanism and use of technology as a moderating variable that may amplify the relationship of audit quality and value addition of businesses, provided both environmental, social, and governance (ESG) practices and technology are properly integrated within business strategy and audit methodology. In addition to this, the revamped conceptual model highlights the need for standardization of ESG or sustainability reporting and assurance practices from a regulatory perspective.

The rest of the paper is arranged as follows: in **Section 2** we elaborate on the traditional theoretical foundations of audit. In **Section 3** we highlight recent literature on audit quality, technology, sustainability reporting, and the association of these three constructs (audit quality, technology, and sustainability) with value addition. In **Section 4** we integrate these concepts to provide a conceptual

framework for the business case of audit in the modern business environment. In Section 5 present implications of this reconceptualization of audit quality. Finally, in Section 6 we conclude the study.

Theoretical Foundations of Audit

The word audit takes different meanings depending on the context. For example, statutory audits, also referred to as annual audits or financial audits, are defined as an independent opinion on whether the presented financial information is free from material misstatements (Siddiqui and Raheman, 2026a). Here, by material we mean any item that may impact the economic decision of the user, and by misstatement we mean distortion and inaccuracy which may be intentional (for example, fraud), or unintentional (for example, error) (Hunt et al., 2022). However, there are other forms of audit as well, namely, internal audit, cost audit, tax audit, operational audit, information systems audit, etc. The definitions of these audits change (Betti et al., 2023), therefore, it is important to highlight that the focus of current study is restricted to annual or financial audits.

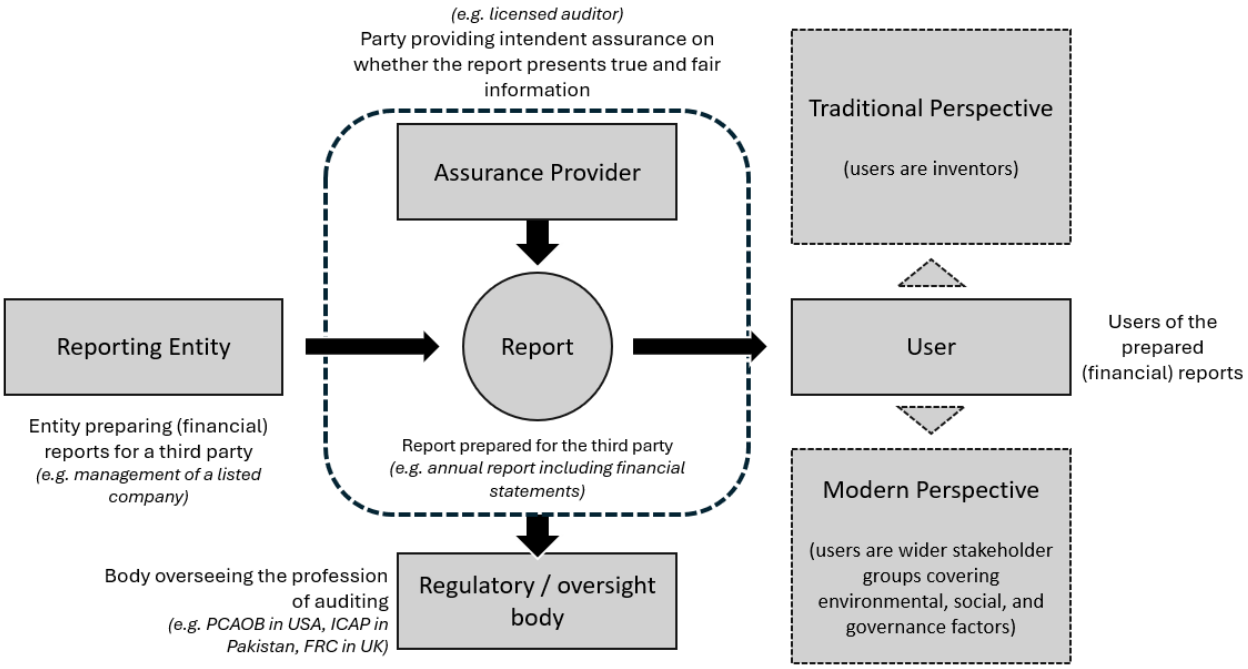
Traditionally, audit is seen as a monitoring mechanism that is implemented to ensure information symmetry between the reporting entity and the investors. Naturally, due to the separation of ownership and management in listed entities, there is an imbalance between the information that is available to the management (which is involved in the daily operations of the business) and the owners of the business that provide finance (Siddiqui and Raheman, 2026a). This separation between management and investors or owners of the business leads to a problem that is referred to by Jensen & Meckling (1976) as the agency problem. That is, if the interests of management and owners are not aligned, then management may be more inclined towards meeting their own objectives, rather than working in the best interest of the investors. The ultimate objective of investors is traditionally seen as wealth maximization. More specifically, utility theory argues that a rational investor would aim at maximizing their wealth by investing in opportunities that would lead to value addition in their investment (Fishburn, 1977). Similarly, projecting the same notion of utility theory on management, they would aim to increase their own wealth. As such, there may be a conflict between the competing interests of management and investors.

Adding the problem of information asymmetry in this agency problem, one may argue that management may distort or misstate the information that they have regarding the operations of the business, to achieve their own objectives rather than transparently working for the objectives of the investors. This agency problem can be reduced by incurring additional costs that are identified as either; (i) monitoring costs; or (ii) bonding costs (Jensen and Meckling, 1976). Audit and assurance exercises are part of the monitoring costs that are incurred to improve the credibility of the information that has been provided by the management. Therefore, from a traditional perspective, projecting from the utility theory, we may link the business case of audit with wealth maximization of investors. That is, these additional monitoring costs will only be justified if they ultimately lead to the value addition of the investors. Therefore, from a traditional lens, theoretical foundations of audit are embedded in concepts like credibility, trust, transparency, and information symmetry (Siddiqui and Raheman, 2026a).

Fortunately, these theoretical foundations may be projected in the modern business era as well, where the primary aim of audit remains ensuring transparency and promoting credibility in the presented information by the management to the users. However, the modern stakeholder view does change the 'users' of financial information. Traditionally, businesses were seen only accountable to the investors, but the stakeholder concept of Freeman (2010) widens this accountability framework of reporting entities on other stakeholder groups. This changes the meaning of information symmetry and credibility for auditors, expanding the scope to include wider environmental, social, and governance factors (Budi and Kurniawati, 2025).

Figure 1 displays the business ecosystem in which audit profession functions to promote credibility and trust.

Figure 1. The Business Ecosystem Covering Traditional and Modern Perspective for Audit



Note: This figure displays the relevant stakeholders in a normal audit engagement, the figure also shows the primary difference between the traditional (agency) and modern (stakeholder) perspective relevant to audit profession.

Source: Author

Review of Literature

In this section we review recent literature covering audit quality, sustainability, and technology, to reconceptualize business case of audit in modern business environment. We look at literature

covering these constructs one by one, followed by an integrated summary that is used subsequently for the reconceptualization.

Audit and Value Addition

Starting with audit and the indicators of audit quality, recent literature identifies a range of factors that are used as a proxy to represent audit quality. However, both literature and practitioners fail to reach a consensus on the definition and measurement of audit quality, as highlighted by Ciger (2020); and Djamil (2024).

Considering scholars, studies highlight a range of determinants of audit quality, that can be categorized into numerous main groups, as stated by Nurachman et al. (2025). However, recent literature reviews show that these determinants have varying impact on audit quality. For example, two most popular proxies used to represent audit quality show competing findings, these include audit fees and auditor tenure.

Considering audit fees, numerous studies (Alrashidi et al., 2021; Ayoola, 2022) use higher audit fees as an indicator for higher audit quality, arguing that auditors demonstrating higher scrutiny will charge higher fees to compensate for higher efforts. However, some studies like Alam et al. (2024); and Bae et al. (2021) show diverging results, justifying this by highlighting that higher audit fees do not always mean higher audit quality. Higher fees may be charged because of higher perceived audit risk, making the audit engagement more complex. Thus, higher audit fees may not always be seen as higher audit quality (Siddiqui and Raheman, 2026b).

Same complexity is witnessed for auditor tenure as well. For example, a strand of literature argues that longer client–auditor relationships result in better audit quality. More specifically, work of Garcia-Blandon et al. (2020); and Nasuci et al. (2020) shows that as auditor tenure increases, so does auditor's understanding of the client's operations, which results in higher audit quality. However, another strand of literature (Djamil, 2024; Martani et al., 2021) shows competing results, arguing that longer auditor tenure results in higher familiarity threat for the auditors, effectively impairing their independence and ultimately impairing audit quality.

Similarly, other popular measures like auditor efforts (Kim, 2021), audit partner rotation (Kang et al., 2023), non–audit services (Mahieux, 2022), knowledge sharing (Liu et al., 2022), and diversity (Mnif and Cherif, 2022), all show contrasting findings under different contextual and institutional settings.

Practitioners' understanding regarding audit quality has been equally complex and subjective. For example, IAASB (2014) provides a comprehensive framework of audit quality segregating quality factors as input– and process–based. The IAASB further highlights multiple levels that impact audit quality. They argue that audit quality is not only an outcome of the audit firm and their expertise. Firm–level and wider institutional– or market–level factors also play a critical role in determining audit quality (IAASB, 2014; PCAOB, 2013). For example, relatively lenient audit team employed on a client operating in quite a complex external environment may result in lower audit quality, than same team employed at an engagement covering fairly static and straightforward external

environment. Similarly, audit engagements conducted at weaker institutional settings may impair auditor's abilities (Siddiqui and Raheman, 2026a).

Although the framework provided by IAASB is quite detailed and comprehensive, literature questions its ability to objectively measure audit quality (Abdelwahed et al., 2023). This complexity stems from practitioners' perspective that states that audit quality is a result of numerous visible factors (for example, input factors like team expertise, skills, experience, and time (PCAOB, 2013)), as well as concealed factors that are not apparent and objective (for example, process factors like methodology and effective governing systems (IAASB, 2013a)). This identification and inclusion of process-based factors render measurement of audit quality extremely subjective and obscured. Literature also highlights other complications in the IAASB's audit quality framework. For example, the factors highlighted are not weighted (that is, which factor impacts audit quality more than the others (Abdelwahed et al., 2023)), or access to information by the market participants (that is, some factors like number of training hours attended by individual auditors that are part of the audit engagement team may not be readily available to the relevant users or stakeholders that are placing reliance on the auditor's report (IAASB, 2013b)).

Therefore, literature and practitioners' documents all label audit quality as a complex and subjective construct and fail to reach an agreement on its definition and measurement. This ambiguity and divergence warrant a reassessment of audit quality, specifically considering the impact of modern (arguably equally complex) constructs like sustainability and technology.

Technology and Audit

Technological innovation has been a significant disruption in the modern economy. This advent in technology has impacted almost all aspects of the global economy (that is, investors, businesses, regulators, and other stakeholder groups (Siddiqui and Raheman, 2025)). With advent of technology, the volume, velocity, and variety of data have increased or amplified. By volume we mean amount, by velocity we mean the speed by which data changes its form or updates, and by variety we mean its nature (Sihombing et al., 2023). For example, now entities do not generate information from financial data only, but with the help of application of artificial intelligence (AI) like natural language processing (NLP), textual data can be converted to information as well. Therefore, the impact of technology on the audit profession is in two folds. First, technology impacts the practitioners and the regulators. Modern auditors can use a variety of tools to help them with the assurance activity. Literature refers to this as audit analytics, where auditors can use machine learning (ML) and deep learning (DL) tools to assess risk, plan audit, or execute audit procedures (Abdelwahed et al., 2025). Scholars highlight numerous applications of AI and technology for auditors, for example, fraud detection, continuous auditing, automated verification, real-time testing of transactions, and making samples redundant (where auditors can test all transactions rather than selecting samples) (Siddiqui and Raheman, 2025).

Similarly, the second aspect of technological impact on audit is from the reporting entity, where using technology may streamline or improve efficiency of the businesses. Technology has impacted on the reporting, operations, strategic direction, and governance of the businesses (Brazel et al.,

2022). Taking support from Porter's (1985) value chain concept, data and technology have the potential to streamline primary and support activities of the businesses, improve communication, and remove redundancies, ultimately improving effectiveness and value (Strakova et al., 2021). Technology not just impacts businesses' operations but may also improve liaising and coordination with the auditors.

However, this advancement in technology comes with its own challenges. For example, literature highlights a range of issues when using technology in audits. For example, increased use of technology means developing new skills in auditors, where they demonstrate needed command over data wrangling and data analytics. This would also mean better communication with data scientists (Siddiqui and Raheman, 2025). As such, use of technology demands investment from auditors and businesses both. For example, training the auditors to use technology and developing the infrastructure needed to facilitate application of audit analytics tools (IAASB, 2016).

Sustainability Reporting

As indicated earlier, stakeholder concept widens the scope of accountability of businesses to broader stakeholder groups (which includes regulators, employees, society and economy at large) (Siddiqui et al., 2026). With this evolution in the accountability framework for firms, the reporting requirements for businesses have also expanded. Earlier, businesses shared information mainly with the investors and focused on the financial results like the firm's performance and position. However, as the expectations of regulators and investors changed over the years, so did the information that was reported by the businesses, as highlighted by Zahid et al. (2022). Literature categorizes this expansion into three main dimensions, environmental, social, and governance. These reporting requirements increase the complexity of the reported information with non-financial disclosures (Samy El-Deeb et al., 2023). This also expands the agency problem, as the management may be motivated to report exaggerated results, a practice that is referred to as greenwashing (Zhou et al., 2024).

Moreover, practitioners acknowledge this added responsibility when providing assurance. For example, IIA (2021); and PwC (2021) show how auditors and assurance providers now consider non-financial disclosures as well when providing assurance. Literature corroborates these practitioners' understandings by showing that non-financial disclosures impact audit engagement characteristics like audit fees, as shown by Zhang et al. (2023). Similarly, literature also shows that audit engagement characteristics impact transparency and trust regarding ESG reporting (Budi and Kurniawati, 2025). Additionally, audit quality show association with greenwashing practices (Ghitti et al., 2024).

Therefore, both literature and practitioners' understanding demonstrate that sustainability reporting has impacted on the auditing profession, changing the value relevance, need, and meaning of this profession.

Summary of Literature

Recent literature shows both technology and sustainability have impacted the audit profession. The disruptions caused by technological innovation have significantly altered how businesses function and how audit engagements are carried out. Similarly, the evolving expectations of stakeholders regarding sustainability have changed how audit reports are used and read. However, midst these changes, the philosophical and theoretical foundations of the audit profession remain unaltered, which is to promote trust and information symmetry in the market. Nonetheless, in order to justify the business case for the audit profession in modern business environment, there is a dire need to revamp how audit leads to value creation (or addition) for modern businesses.

Reconceptualization of the Business Case of Audit

We reconceptualize the business case of audits in two steps, first we consider the evolving expectations of stakeholders regarding businesses' accountability, then we focus on the impact of technology on the profession. Finally, we integrate these two aspects of the modern business environment to revamp the business case for audit.

Evolving Stakeholder Expectations and Audits

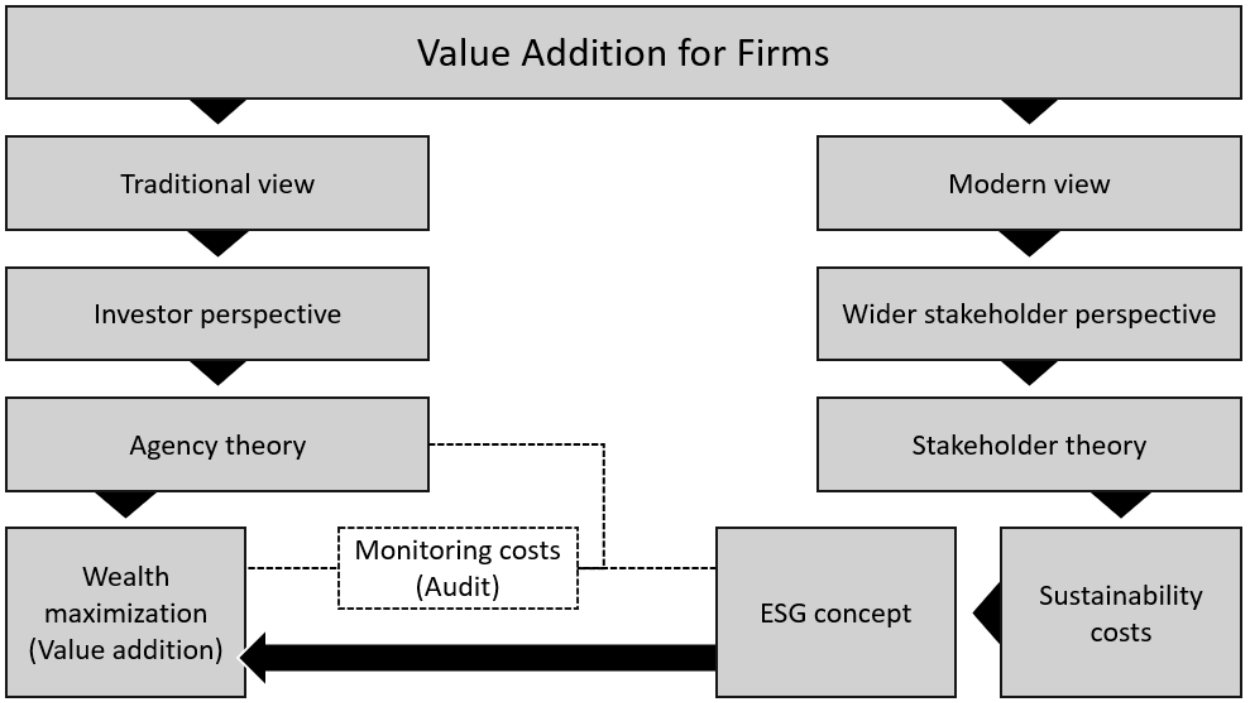
The modern perspective of firm accountability stemming from Freeman's (2010) stakeholder concept complicates the business case for audit. This is because different stakeholders may have competing interests, as highlighted by Siddiqui et al. (2026). Where environmental aspects would require outflows from the profits of the business to serve environmental concerns, similarly social aspects would expect outflows from profits of the business to serve social concerns. However, meeting environmental considerations would mean meeting fewer social considerations by businesses. For example, paying higher salaries to ensure satisfied workforce will mean lower profits available to distribute for environmental or governance concerns. This means widening the accountability of firms leads to a tradeoff between competing interests of stakeholders, complicating the value addition perspective for the business as a whole (Signori et al., 2021). This complexity projects on audit profession as well. As traditionally, auditors were only expected to add value to investors. However, from stakeholder perspective, auditors need to ensure relevance considering varying needs of stakeholders and understanding what constitutes as value for them.

To resolve this complication, the concept of sustainability is translated into ESG factors. This concept states that businesses must integrate the three ESG pillars (environmental, social, and governance) in their strategy by identifying risks and opportunities pertaining to each of these pillars. The idea behind this approach is that risks and opportunities arising from these three pillars are just as real as other financial, economic, and operational risks that businesses face. Taking support from the Efficient Markt Hypothesis (EMH) of Fama (1970), it can be argued that market considers all risks when considering required rate of return on investments. As such, the ESG risks would be included by the market as premium when deciding the returns. Therefore, businesses report their ESG risks, opportunities, and initiatives to the market through sustainability reporting (Niazi and Siddiqui, 2024). Naturally, as in case of financial reporting, users need assurance on the reported information

to place reliance when making economic decisions. Therefore, process of audit and assurance takes a central role in the modern perspective of value addition as well.

This convergence between the traditional and modern perspective of value addition, and role of audit in ensuring transparency and information symmetry is demonstrated in **Figure 2**.

Figure 2. Traditional and Modern Perspective of Value Addition and Role of Audit



Note: This figure shows the link between traditional and modern perspective of value addition for businesses and role audit plays in both to ensure transparency and credibility.

Source: Adapted **from Siddiqui & Raheman (2026)**

Technological Context and Audits

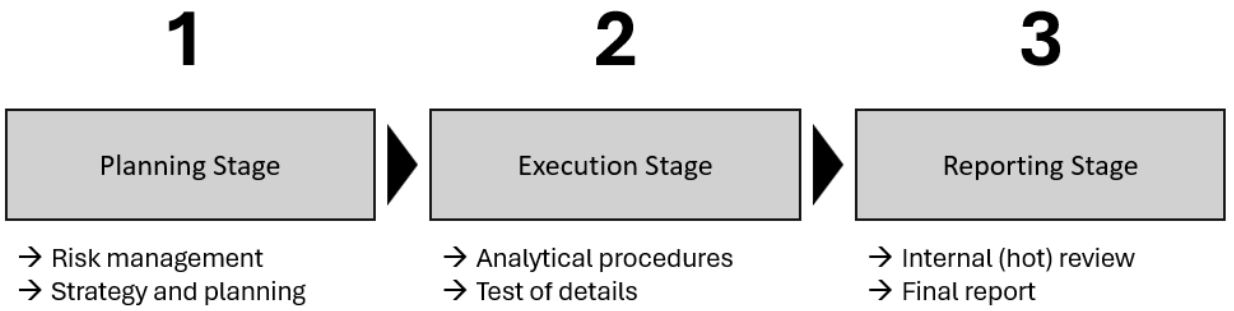
Considering prior literature and theoretical foundations of audit, the impact of technology on audit is classified into two main categories: (1) use of technology by the audit firms; and (2) use of technology by the businesses or reporting entities.

Use of Technology by the Audit Firms

First is the impact of technology on the audit profession itself. Technology has opened numerous avenues for the auditors to improve the overall audit process. A typical audit process can be segregated into three main phases, as highlighted by Siddiqui & Raheman (2025): (1) audit

planning; (2) audit execution; and (3) reporting (refer to **Figure 3** for details). Technology impacts all these three phases of audit.

Figure 3. Phases of a Typical Audit Engagement



Note: This figure shows the three phases of typical audit engagement.

Source: **Author**

During the planning phase, the most prominent aspect of audit that is impacted by technology is risk management. More specifically, ML and DL applications can help identify patterns and categorize risk for auditors. For example, improving the auditors' understanding of the business and its external environment by assessing large historical datasets that contain financial and non-financial information. Auditors can use chairperson and CEO statements to develop an understanding of new developments in the business that may impact its risk profile or perform sentiment analysis or opinion mining to assess expected implications of business decisions, as highlighted by Austin et al. (2021).

For audit execution phase, technology impacts not just the nature, timing, and extent audit procedures performed to gather evidence, but it also impacts the nature of evidence itself, the sampling strategy, and the sample tested (Siddiqui and Raheman, 2025). For example, technology has a direct impact on analytical procedures performed by auditors. Han et al. (2023); and Kolisnyk et al. (2023) identify the implications of blockchain technology on auditing, highlighting its association with continuous auditing. This not only ensures verification of transitions in real time but also removes the limitations of selecting and testing samples. That is, to put it simply, all transactions can be automatically tested using blockchain technology.

Similarly, for audit reporting phase, Chang & Luo (2021) highlight the implications of technology in data visualization and identify biases associated with use of technology for auditing. Furthermore, Siddiqui & Raheman (2025) comment on other aspects of audit reporting through effective use of technology. For example, technology may remove the need for periodic reports, as continuous auditing will ensure reporting violations and audit findings in real time as they are highlighted.

Impact of Technology on Businesses

Considering the impact on technology from the business angle, businesses integrate technology to improve their value creation process, as highlighted by Strakova et al. (2021). More specifically,

technology may help improve internal coordination and communication processes by enhancing the information systems of the businesses (Denner et al., 2018). Proper use of technology may mean accurate information is available to the management in timely manner. Reports are precise, relevant, and complete, provided that the employees have the skills needed. As in the case of audit firms, Alalawneh & Alkhatib (2021) argue that for businesses to successfully integrate technology within their operations and strategy, they require substantial investments in form of training and information technology (IT) infrastructure. From a business perspective, technology has implications for all its functions, from human resources (HR), finance, accounting, treasury, procurement, to operations (Mosteanu and Faccia, 2021).

Proper integration of technology is linked with efficiency, effectiveness, and streamlining of business activities. Moreover, technology is seen as having the potential to improve coordination, liaising, and reporting of business activities to relevant internal and external stakeholders as well. This is where audit, value, and sustainability intersect. With improved reporting (for example, better visualization, accuracy, and real time reporting), businesses can use technology to create awareness, and auditors can provide assurance on the reported information to ensure its credibility (Zhang et al., 2023). As such, this creates a conceptual link between audit, sustainability, technology, and value addition.

A Top-Down Approach

The multi-level impact of technology and sustainability on businesses and audit further complicates the understanding developed so far. Technology and sustainability impact audit profession and businesses in three levels. The first level is the firm level, where technology is adopted by the businesses and audit firms. This simply means the technology infrastructure implemented by businesses and audit firms. This also includes training and development activities done by the businesses and auditors to develop the skills needed to effectively engage with the technology. The second level is the market, where capital and money markets integrate technology into their operations and help enable market players to make effective economic decisions by sharing data more efficiently. Finally, the third layer is the institutional layer where nation's top-level institutions integrate technology and enable its use for firms. As argued by Fan et al. (2011), there is a top-down approach regarding the impact of institutional factors impacting firm-level aspects. Replicating this approach, **Figure 4** visually demonstrates how a top-bottom approach impacts the overall audit profession, considering sustainability and technology.

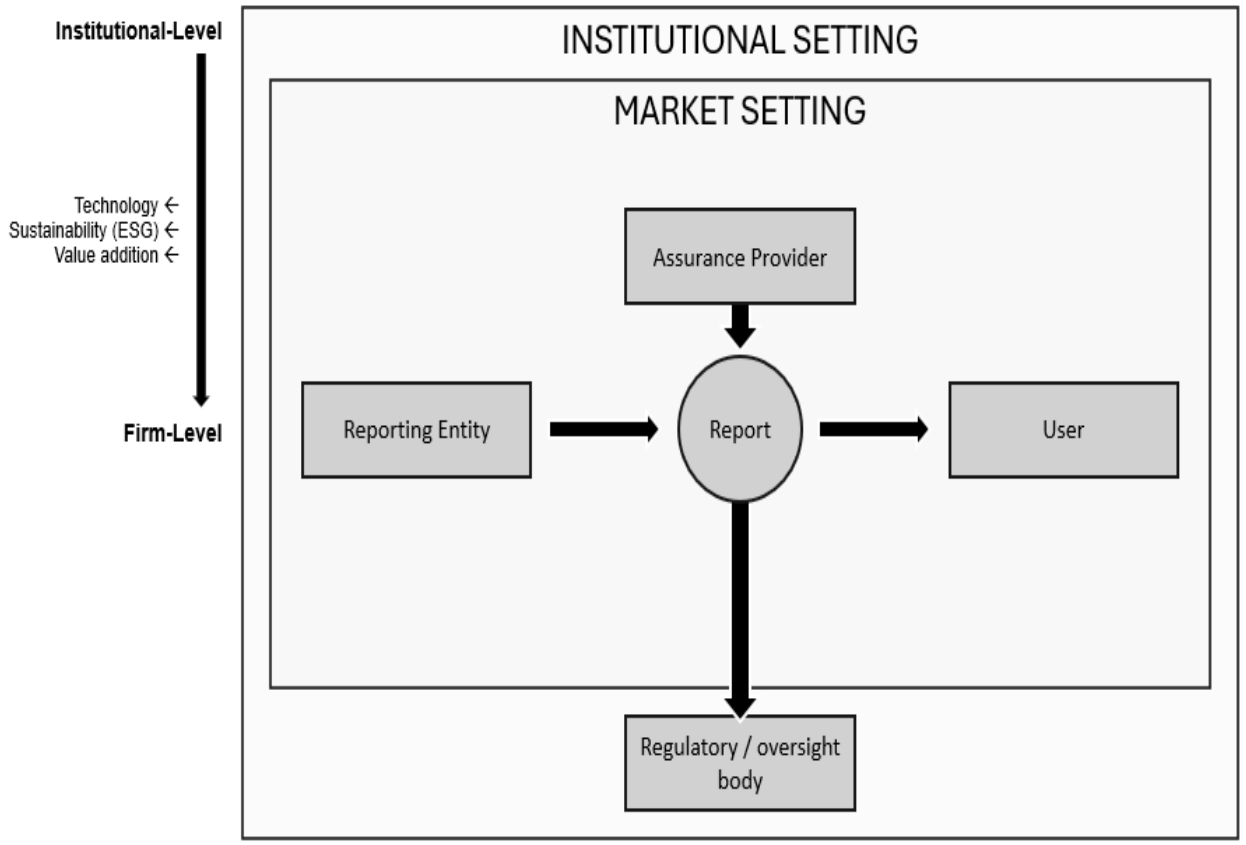
Summary of the Reconceptualized Model for the Business Case of Audit

Sustainability, technology, audit, and value addition, all are quite complex constructs, as evident from recent literature. The changing stakeholder expectations around business accountability and advent of technology have substantially changed the manner in which audits are conducted in modern era.

Audit is seen as a monitoring cost even in the current business environment (Siddiqui and Raheman, 2026a), therefore, in order to lead to value addition, audits must initiate a mechanism that helps achieve the profession its business case. Considering the ESG concept, based on the Freeman (2010) stakeholder perspective, one may argue that in modern era, audit achieves its business case by

ensuring sustainable business practices and promoting credibility and trust through businesses' sustainability reporting.

Figure 4. Top-Down Approach for Institutional Factors Impacting Audit Profession



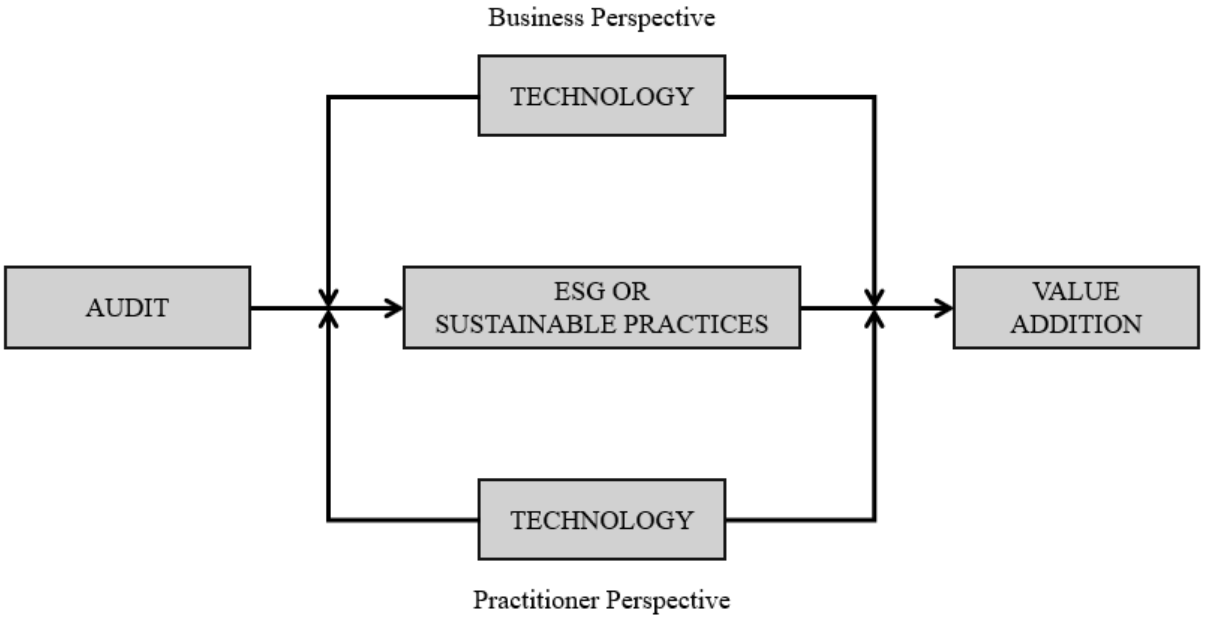
Note: This figure demonstrates how instructional and market factors play a role in determining the business case for audit profession.

Source: Author

Additionally, technology may help improve these business reports by improving their accuracy, timeliness, and reliability. Similarly, auditors may also leverage technology to improve overall audit engagement by enhanced risk assessment, evidence gathering, and reporting. More specifically, this hints towards a relationship between audit and value addition that is amplified in presence of an effective and enabling technological environment.

Combining the constructs of sustainability, technology, audit, and firm value addition together, **Figure 5** represents the revamped conceptual model for business case of audit in modern business environment.

Figure 5. The Modern Conceptual Framework for Audit Quality and Value Addition



Note: This figure shows the reconceptualized model for business case of audit in the modern era, where ESG or sustainability practices mediate the relationship between audit and value addition of businesses and technology (business perspective and auditor perspective) moderates this relationship.

Source: Author

Implications

The reconceptualized model presented in the current study has implications in three folds, we consider them one by one.

Academic Implications

For scholars, the current study repositions the role of audit in value addition of businesses by considering the channel of sustainability, taking support from the stakeholder theory. The study also attempts to integrate role of technology in this conceptual framework. In doing so, the current study extends the traditional compliance-oriented view of audit into a broader framework that integrates ESG disclosures and digitalization. This shift encourages scholars to view audit from a holistic lens, instead of looking at it from an arguably simple compliance related tool.

The current study also contributes to sustainability literature (specifically, sustainability and ESG reporting), highlighting the need for credibility and trust for such disclosures. Mainly, earlier literature focuses on a direct linkage between audit quality and ESG disclosures and ESG and value

addition, however, the current study demonstrates a potential mediating role of sustainable business practices between audit and value addition in modern business environment.

Similarly, the current study also attempts to theoretically conceptualize the impact of disruptions caused by technology on audit quality. The study demonstrates a moderating impact of technology in the audit and value addition linkage, where effective integration of technology in information systems implemented by businesses and audit firms may enhance the impact of audit quality and value addition of businesses.

Finally, the study also considers the role of institutional factors when considering the theorized relationships of complex constructs like audit, value addition, sustainability, and technology. The study argues that institutional role in developing conceptual frameworks is integral, as it functions as a tool that is needed to properly comprehend the mechanics of how various forces interact and integrate with one another. For example, the role of technology is not as simple as its integration within the information systems of businesses and audit firms. How technology impacts overall coordination between the market and institutional bodies play a critical role here as well. Similarly, concept of sustainability is not only relevant from the perspective of businesses but must also be considered from an institutional perspective (for example, role of regulators and policymaking institutions in implementing relevant regulations and accountability of businesses for violating those regulations).

Practical Implications

From a practical perspective, the reconceptualized audit and value addition framework demonstrated in the current study has implications for auditors, regulators, and businesses.

Starting with audit firms, the reconceptualized framework from **Figure 4** highlights the need to reposition audit and assurance practices as a strategic function rather than a compliance checking exercise. In order for the auditing profession to stay relevant in the modern business environment and sustain its business case, audit engagements need to adapt to the evolving stakeholder needs and expectations. This includes the need of investors to be presented with credible ESG related information to take effective economic decisions. This also includes the need of regulators regarding accurate reporting of ESG initiatives and metrices to ensure compliance with the regulatory requirements (an example of which is carbon emission levels). The study also highlights the need for the auditors to upskill themselves regarding the use of technology. In order for the auditors to leverage technology to collect audit evidence effectively and efficiently, there is a need to develop relevant skills in auditors, pertaining to the use of technology and data analytics. Without developing such data and technology related skills, auditors may not be able to add value to businesses in efficient manner.

For regulators and standard setting bodies, the framework presented in the current study demonstrates the need for clarity on ESG reporting as well as ESG assurance. Lack of standardized sustainability reporting practices has an impact on overall trust and transparency in the market. Development of sustainability standards by International Financial Reporting Standards (IFRS) Foundation (referred to as S1 and S2) are a visionary first step towards ensuring consistency and

comparability in the sustainability related disclosures. Similarly, issuance of International Standard on Sustainability Assurance (ISSA) 5000 by the IAASB is also a commendable initial step for regulating sustainability assurance engagements. Nonetheless, sustainability remains dynamic and developing area in the modern business environment. Regulators need to ensure that sustainability reporting and assurance practice remain relevant with the evolving expectations and needs of the modern environment. Standardization and regulation remain the key aspects that will need consistent efforts of regulators and policymaking institutions.

For businesses, the most prominent implication from the reconceptualized framework presented in **Figure 4** remains the need to integrate ESG initiative within their overall strategy and risk management framework. The conceptual model presented warns businesses against a superficial integration of ESG initiatives or looking at sustainability as mere compliance, box-checking exercise. The model shows that sustainability practices need to cohesively form part of the business strategy and operations. The model also indirectly discourages the practices of greenwashing by demonstrating the role of auditing to ensure credibility in ESG reporting. Finally, the reconceptualized framework also demonstrates the need to effective integration of technology within business operations to improve efficiency, just as in the case of audit firms.

Social Implications

From a broader perspective, the study highlights the role of audit profession in supporting sustainable and responsible business practices. By enhancing credibility of the ESG disclosures, audit profession promotes trust in the overall economy and contributes towards informed economic decisions by investors. The framework visually demonstrates how credibility, trust, and information symmetry regarding sustainable businesses practices serve a higher purpose in the overall economy than simple compliance exercise.

Conclusion

The current study attempts to reconceptualize the business case of audit by integrating concepts of sustainability and technology within the framework. The model argues for an intervening role of sustainable practices by businesses between audit quality and value addition and interaction of technology between this relationship. The presented model highlights the need for effective integration of ESG initiatives and risk management within business strategy. The model also demonstrates the need for training and upskilling of auditors to ensure effective use of technology in conducting audit engagements. Finally, the model highlights the importance of standardization of sustainability reporting and assurance practices from regulatory perspective.

The reconceptualized framework presented in the current study lays out foundations for future empirical research by presenting a set of testable propositions, encouraging scholars to view audit profession from a wider context, than a simple compliance checking exercise. For example, the interaction of technology may be positive or negative, depending on the extent of readiness of businesses and audit firms in capitalizing IT infrastructure and modern data analytics techniques. Similarly, the intervening role of sustainable business practices may depend on the maturity and transparency of the institutional and market settings where businesses and audit firms operate in. All

these avenues raise interesting research questions that translate into testable hypotheses. Therefore, although this study provides an integrated conceptual framework, considering modern disruptions and stakeholder needs, the proposed relationships are theoretical in nature and would benefit from empirical assessments.

References

Abdelwahed, A.S., Abu-Musa, A.A., Moubarak, H. and Badawy, H.A. (2023), "Mapping the Academic Literature of Audit Quality Against the IAASB Framework: A Keyword-Frequency Analysis", The 2023 Annual Journal of Accounting & Organizational Change (JAOC) Symposium, Emerald Group Publishing, Riyadh, Saudi Arabia.

Abdelwahed, A.S., Abu-Musa, A.A.E.S., Badawy, H.A.E.S. and Moubarak, H. (2025), "Investigating the impact of adopting big data and data analytics on enhancing audit quality", Journal of Financial Reporting and Accounting, Vol. 23 No. 2, pp. 472–495, doi: 10.1108/JFRA-12-2023-0724.

Alaamri, Y., Hussainey, K., Nandy, M. and Lodh, S. (2023), "The impact of audit quality and climate change reporting on corporate performance: a review and future research agenda", Journal of Accounting Literature, doi: 10.1108/JAL-05-2023-0081.

Alalawneh, A.A.F. and Alkhatib, S.F. (2021), "The barriers to big data adoption in developing economies", The Electronic Journal of Information Systems in Developing Countries, Vol. 87 No. 1, doi: 10.1002/isd2.12151.

Alam, P., Cheng, Y., Rickett, L.K. and Skomra, J. (2024), "PCAOB inspection deficiencies and audit fees", Journal of Corporate Accounting & Finance, Vol. 35 No. 1, pp. 228–249, doi: 10.1002/jcaf.22662.

Alrashidi, R., Baboukardos, D. and Arun, T. (2021), "Audit fees, non-audit fees and access to finance: Evidence from India", Journal of International Accounting, Auditing and Taxation, Vol. 43, p. 100397, doi: 10.1016/j.intaccaudtax.2021.100397.

Austin, A.A., Carpenter, T.D., Christ, M.H. and Nielson, C.S. (2021), "The Data Analytics Journey: Interactions Among Auditors, Managers, Regulation, and Technology*", Contemporary Accounting Research, Vol. 38 No. 3, pp. 1888–1924, doi: 10.1111/1911-3846.12680.

Ayoola, T.J. (2022), "Audit fees, audit seasonality and audit quality in Nigeria: a mediation analysis", Journal of Financial Reporting and Accounting, doi: 10.1108/JFRA-01-2022-0010.

Bae, G.S., Choi, S.U., Lamoreaux, P.T. and Lee, J.E. (2021), "Auditors' Fee Premiums and Low-Quality Internal Controls*", Contemporary Accounting Research, Vol. 38 No. 1, pp. 586–620, doi: 10.1111/1911-3846.12602.

Betti, N., DeSimone, S., Gray, J. and Poncin, I. (2023), "The impacts of the use of data analytics and the performance of consulting activities on perceived internal audit quality", Journal of Accounting & Organizational Change, doi: 10.1108/JAOC-08-2022-0125.

Brazel, J.F., Ehimwenma, E. and Koreff, J. (2022), "Do Different Data Analytics Impact Auditors' Decisions?", Current Issues in Auditing, Vol. 16 No. 2, pp. P24–P38, doi: 10.2308/CIIA-2021-031.

Budi, S. and Kurniawati, D. (2025), "The Influence of Stakeholder Pressure and Audit Quality on Sustainability Performance", IJESS International Journal of Education and Social Science, Vol. 6 No. 1, pp. 139–147, doi: 10.56371/ijess.v6i1.437.

Chang, C.J. and Luo, Y. (2021), "Data visualization and cognitive biases in audits", Managerial Auditing Journal, Vol. 36 No. 1, pp. 1–16, doi: 10.1108/MAJ-08-2017-1637.

Ciger, A. (2020), "Audit Quality: A Bibliometric Analysis (1981-2020)", Scientific Annals of Economics and Business, Vol. 67 No. 4, pp. 473–494, doi: 10.47743/saeb-2020-0031.

Denner, M.-S., Püschel, L.C. and Röglinger, M. (2018), "How to Exploit the Digitalization Potential of Business Processes", Business & Information Systems Engineering, Vol. 60 No. 4, pp. 331–349, doi: 10.1007/s12599-017-0509-x.

Djamil, N. (2024), "Audit Quality: Audit Fees, Audit Tenure, Audit Rotation, Auditor Reputation and Audit Specialization", InJEBA : International Journal of Economics, Business and Accounting, Vol. 2 No. 4, pp. 544–553.

Fama, E.F. (1970), "Efficient Capital Markets: A Review of Theory and Empirical Work", The Journal of Finance, Vol. 25 No. 2, p. 383, doi: 10.2307/2325486.

Fan, J.P.H., Wei, K.C.J. and Xu, X. (2011), "Corporate finance and governance in emerging markets: A selective review and an agenda for future research", Journal of Corporate Finance, April, doi: 10.1016/j.jcorpfin.2010.12.001.

Fawziah, I.N., Hayati, D.I. and Hidayatullah, S.R. (2025), "Determinant of audit quality: a literature review", Jurnal Economic Resource, Vol. 8 No. 2, pp. 1089–1097, doi: https://doi.org/10.57178/jer.v8i2.1655.

FEE. (2015), Overview of Audit Quality Indicators Initiatives.

Fishburn, P.C. (1977), "Expected Utility Theories: A Review Note", pp. 197–207, doi: 10.1007/978-3-642-45494-3_15.

Freeman, R.E. (2010), Strategic Management: A Stakeholder Approach.

Garcia-Blandon, J., Argilés-Bosch, J.M. and Ravenda, D. (2020), "Audit firm tenure and audit quality: A cross-European study", Journal of International Financial Management & Accounting, Vol. 31 No. 1, pp. 35–64, doi: 10.1111/jifm.12098.

Ghitti, M., Gianfrate, G. and Palma, L. (2024), "The agency of greenwashing", Journal of Management and Governance, Vol. 28 No. 3, pp. 905–941, doi: 10.1007/s10997-023-09683-8.

Han, H., Shiwakoti, R.K., Jarvis, R., Mordi, C. and Botchie, D. (2023), "Accounting and auditing with blockchain technology and artificial Intelligence: A literature review", International Journal of Accounting Information Systems, Vol. 48, p. 100598, doi: 10.1016/j.accinf.2022.100598.

Hunt, E., Hunt, J., Richardson, V.J. and Rosser, D. (2022), "Auditor Response to Estimated Misstatement Risk: A Machine Learning Approach", Accounting Horizons, Vol. 36 No. 1, pp. 111–130, doi: 10.2308/HORIZONS-19-139.

IAASB. (2013a), "A Framework of Audit Quality", available at: https://www.iaasb.org/publications/framework-audit-quality-2?page=1 (accessed 21 January 2024).

IAASB. (2013b), A Framework for Audit Quality – Consultation Paper.

IAASB. (2014), A Framework for Audit Quality: Key Elements That Create an Environment for Audit Quality.

IAASB. (2016), Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics.

IIA. (2021), Internal Auditor's Role in ESG Reporting.

Jensen, M.C. and Meckling, W.H. (1976), "Theory of the firm: Managerial behavior, agency costs and ownership structure", Journal of Financial Economics, Vol. 3 No. 4, pp. 305–360, doi: 10.1016/0304-405X(76)90026-X.

Kang, M., Kim, S. and Lee, H.-Y. (2023), "The joint effects of partner rotation and allocation of audit hours on audit quality", Managerial Auditing Journal, Vol. 38 No. 6, pp. 947–971, doi: 10.1108/MAJ-04-2023-3892.

Kim, S. (2021), "Does Engagement Partners' Effort Affect Audit Quality? With a Focus on the Effects of Internal Control System", Risks, Vol. 9 No. 12, p. 225, doi: 10.3390/risks9120225.

Kolisnyk, O., Hurina, N., Druzhynska, N., Holovchak, H. and Fomina, T. (2023), "Innovative Technologies In Accounting And Auditing: The Use Of Blockchain Technology", Financial and Credit Activity Problems of Theory and Practice, Vol. 3 No. 50, pp. 24–41, doi: 10.55643/fcaptp.3.50.2023.4082.

Liu, Y., Liu, J.J. and Xin, Q. (2022), "Does industry audit risk similarity affect auditor expertise? Evidence from China", Asia-Pacific Journal of Accounting & Economics, pp. 1–21, doi: 10.1080/16081625.2022.2147964.

Mahieux, L. (2022), "Auditors' Incentives and Audit Quality: Non-Audit Services versus Contingent Audit Fees", European Accounting Review, pp. 1–37, doi: 10.1080/09638180.2022.2066011.

Martani, D., Rahmah, N.A., Fitriany, F. and Anggraita, V. (2021), "Impact of audit tenure and audit rotation on the audit quality: Big 4 vs non big 4", Cogent Economics & Finance, Vol. 9 No. 1, doi: 10.1080/23322039.2021.1901395.

Mnif, Y. and Cherif, I. (2022), "Audit partner workload, gender and audit quality", Journal of Applied Accounting Research, Vol. 23 No. 5, pp. 1047–1070, doi: 10.1108/JAAR-08-2021-0219.

Mosteanu, N.R. and Faccia, A. (2021), "Fintech frontiers in quantum computing, fractals, and blockchain distributed ledger: Paradigm shifts and open innovation", Journal of Open Innovation: Technology, Market, and Complexity, MDPI AG, Vol. 7 No. 1, pp. 1–19, doi: 10.3390/joitmc7010019.

Nasuci, K.P., Sari, R. and Sari, R.H.D.P. (2020), "The Effect Of Audit Tenure, Company Size, Audit Firm's Reputation On Audit Quality", Jurnal Ilmiah Akuntansi Kesatuan, Vol. 8 No. 3, pp. 393–402, doi: 10.37641/jiakes.v8i3.391.

Niazi, B. and Siddiqui, O. (2024), "Pakistan's Commitment to Sustainable Development—Mapping Annual Expenditure with Selected Priority SDG Targets", in Crowther, D. and Seifi, S. (Eds.), CSR, Governance and Value, Springer, pp. 197–222, doi: 10.1007/978-981-97-4795-5_9.

Nurachman, I.A., Heryana, R.P., Luthfi, D., Fitriana, F. and Santoso, R.A. (2025), "The Trend of Audit Quality Development: A Scopus-Based Bibliometric Analysis", Golden Ratio of Social Science and Education, Vol. 5 No. 1, pp. 230–237, doi: 10.52970/grsse.v5i1.1086.

PCAOB. (2013), Discussion – Audit Quality Indicators.

Porter, M.E. (1985), Competitive Advantage: Creating and Sustaining Superior Performance, Free Press, New York.

PwC. (2021), Rising Role of Audit in ESG Reporting.

PwC. (2023), "What is an audit?", available at: https://www.pwc.com/m1/en/services/assurance/what-is-an-audit.html (accessed 15 December 2023).

Samy El-Deeb, M., Ismail, T.H. and El Banna, A.A. (2023), "Does audit quality moderate the impact of environmental, social and governance disclosure on firm value? Further evidence from Egypt", Journal of Humanities and Applied Social Sciences, Vol. 5 No. 4, pp. 293–322, doi: 10.1108/JHASS-11-2022-0155.

Siddiqui, O. and Raheman, A. (2025), "Exploring the Role of Technology in Auditing: Opportunities and Challenges From Stakeholder Perspectives", International Journal of Auditing, doi: 10.1111/ijau.70021.

Siddiqui, O. and Raheman, A. (2026a), "Role of Earnings Management and Digitalization in Explaining the Relationship Between Audit Quality and Value Addition: Insights from China", South Asian Review of Business and Administrative Studies, Vol. 7 No. 1, doi: https://doi.org/10.52461/sabas.v7i1.3749.

Siddiqui, O. and Raheman, A. (2026b), "Audit Quality and ESG Signaling: A Mediation Analysis from Selected Emerging Markets on Firm Value Addition", Indonesian Journal of Sustainability Accounting and Management, Vol. 10 No. 1, pp. 124–138, doi: 10.20448/ijsam.v10i1.8557.

Siddiqui, O., Sohail, M.K. and Niazi, B. (2026), "The Business Case for ESG: A Comparative Examination of Firm Risk, Value and Performance in Emerging Versus Developed Markets", in Crowther, D. and Seifi, S. (Eds.), CSR, ESG and Sustainability, Vol. 27, Emerald Publishing Limited, pp. 25–45, doi: https://doi.org/10.1108/S2043-052320260000027002.

Signori, S., San-Jose, L., Retolaza, J.L. and Rusconi, G. (2021), "Stakeholder Value Creation: Comparing ESG and Value Added in European Companies", Sustainability, Vol. 13 No. 3, p. 1392, doi: 10.3390/su13031392.

Sihombing, R.P., Narsa, I.M. and Harymawan, I. (2023), "Big data analytics and auditor judgment: an experimental study", Accounting Research Journal, Vol. 36 No. 2/3, pp. 201–216, doi: 10.1108/ARJ-08-2022-0187.

Strakova, J., Simberova, I., Partlova, P., Vachal, J. and Zich, R. (2021), "The Value Chain as the Basis of Business Model Design", Journal of Competitiveness, Vol. 13 No. 2, pp. 135–151, doi: 10.7441/joc.2021.02.08.

Zahid, R.M.A., Khan, M.K., Anwar, W. and Maqsood, U.S. (2022), "The role of audit quality in the ESG-corporate financial performance nexus: Empirical evidence from Western European companies", Borsa Istanbul Review, Vol. 22, pp. S200–S212, doi: 10.1016/j.bir.2022.08.011.

Zhang, K., Liu, X. and Wang, J. (2023), "Exploring the relationship between corporate ESG information disclosure and audit fees: evidence from non-financial A-share listed companies in China", Frontiers in Environmental Science, Vol. 11, doi: 10.3389/fenvs.2023.1196728.

Zhou, Y., Chen, L., Zhang, Y. and Li, W. (2024), "'Environmental disclosure greenwashing' and corporate value: The premium effect and premium devalue of environmental information", Corporate Social Responsibility and Environmental Management, Vol. 31 No. 3, pp. 2424–2438, doi: 10.1002/csr.2698.