

Audit Quality Research: A Comprehensive Review of Measurements, Determinants, and Future Prospects

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ABSTRACT

Audit quality (AQ) remains a central concern for regulators, practitioners, investors, and researchers due to its critical role in enhancing the credibility and reliability of financial reporting. Despite the extensive growth of audit quality research over the past two decades, the literature remains fragmented regarding the determinants, measurement approaches, and contextual factors influencing audit quality. This study provides a comprehensive systematic review of archival audit quality research published in leading accounting, auditing, and finance journals between 2001 and 2020. Guided by the International Auditing and Assurance Standards Board (IAASB) Audit Quality Framework, the review examines publication trends, key research themes, determinants of audit quality, measurement proxies, and potential avenues for future research. A total of 234 articles were initially identified from ABDC-ranked A* and A journals, of which the most relevant archival studies were analyzed. The findings reveal a substantial increase in audit quality research during the period 2011–2020, accounting for more than 70% of total publications. The review indicates that most studies focus on input-related factors such as auditor independence, audit fees, auditor tenure, audit firm size, industry specialization, and auditor expertise. Output-based measures dominate literature, with discretionary accruals, financial reporting quality, restatements, and modified audit opinions being the most frequently employed proxies of audit quality. In contrast, process-related measures such as audit effort and audit adjustments receive comparatively limited attention. The findings further demonstrate that regulatory environments, corporate governance mechanisms, and audit industry structures significantly influence audit quality outcomes. The study contributes to the auditing literature by synthesizing existing evidence, identifying underexplored dimensions of the IAASB framework, and proposing future research directions related to audit processes, stakeholder interactions, technological advancements, and emerging regulatory challenges. The review offers valuable insights for researchers, standard setters, regulators, and practitioners seeking to enhance audit effectiveness and strengthen confidence in financial reporting.

Keywords: Audit Quality, IAASB Framework, Archival Auditing Research, Financial Reporting Quality, Auditor Independence, Systematic Literature Review, Audit Determinants.

INTRODUCTION

Over the last few decades, globalization, tremendous change in business dynamics and multibillion-dollar corporate scams, created a need for excessive transparency, accountability and a strict litigation environment (DeFond and Zhang 2014). This compelled International Accounting and Auditing Standard Board (IAASB), which was established in 2002, having a mission to enhance the confidence of the users of financial statements through increased quality and persistence of accounting numbers, to issue a complete framework for audit quality in 2014, in which a structured and systematic approach was discussed in order to achieve quality audits. Currently, more than 90 jurisdictions are following ISAs issued by IAASB (Simnett, Carson et al. 2016).

As a result of globalization and rapid changes in business dynamics, auditing has become an international profession. Nevertheless, it remains to be established whether the research undertaken on the said phenomena has contributed significantly to educating various stakeholders in the auditing profession. Therefore, this literature review aims to gain in-depth knowledge by examining archival research on auditing published in top-tier journals in accounting, auditing, and finance over the last couple of decades.

The objectives of this review are; 1) to determine the trends in the field of archival auditing research in leading accounting and auditing journals, 2) to ascertain which areas of IAASB audit quality framework (2004) have been researched over the period of 2001 to 2020, 3) how audit quality has been measured during the period from 2001-2020 and 4), innate shortcomings of existing literature on archival auditing and possible future directions.

Following DeFond and Zhang (2014), Simnett al. (2016) we define auditing archival research as a research that aims to arrive at conclusions by employing econometric methods, largely, to inquire and to analyze the empirical data in order to address a particular audit-related query. Research other than archival research, which is based on surveys, experiments, or existing theory, prevents us from conducting a systematic literature review. Owing to that, we limit our review to archival auditing research only. We further limit our review to leading accounting and auditing journals (ABDC-rated: A* & A only) for the period covering 2001 to 2020.

The present study will entice the attention of practitioners, researchers, regulators, and standard setters in several ways. It will provide researchers with information on the areas of the IAASB

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framework for auditing (2004) that have been researched in leading accounting and auditing journals over the last couple of decades, as well as areas that remain to be explored, offering opportunities for future research. Standard setters and regulators, particularly IAASB (responsible for the development and revision of ISAs) and different chartered accountancy bodies around the world (responsible for the implementation of ISAs), will be provided with the critical evaluation of empirical evidence to enable them to assess the legitimacy of the research output and help them to develop standards based on best practices around the world (Trochim and Donnelly 2008). The knowledge we acquired from the current review enabled us to identify and synthesize the issues, ultimately empowering us to evaluate the incremental knowledge learnt from this review. Rest of the review is divided into sections that describe our methodology towards data collection, followed by a section briefly describing IAASB framework for audit (2004), and followed by sections regarding the findings, discussion and conclusion.

DATA COLLECTION

We started our search by shortlisting highly influential journals in accounting and auditing. We consulted the ABDC list of journals and searched as per the following criteria,

- 1) Journals should have ABDC ratings of A* and A rating only
- 2) The title of the Journal should include any of the words of “Accounting,” or “Auditing,” or “Finance”

As a result of this search, we were able to shortlist 80 journals. The next step was to download articles from the shortlisted journals. The following criteria were followed to download the journals,

- 1) The title of the article should contain the words of “Audit Quality”
- 2) The article should be published during the years from 2001 to 2020.

We used the Publish-or-perish software to search for articles published in the shortlisted journals. Our search yielded 234 articles related to Audit Quality published in 20 highly influential journals. The list of journals and articles is depicted in Table 1.

Trends in Archival Auditing Research

Table 1 shows that archival auditing research is increasing every year. Out of the total 234 papers, only 28% (n=65) of papers were published in the years from 2001 to 2010. Whereas 72% (n=169) of papers were published in the recent decade of 2011 to 2020. More than 56% of the total papers were published in four journals: Accounting Review Journal (16.67% n=39), Contemporary Accounting Research (15.38% n=36), International Journal of Auditing (13.68% n=32), and Managerial Auditing Journal (10.68% n=25).

[Insert Table 1 here]

IAASB Framework for Audit Quality (2014)

Regardless of the fact that the phenomenon of audit quality (AQ) has been researched rigorously in the last three decades, there has been a minute unanimity between the researchers how best AQ can be defined or measured (Francis 2011, Knechel, Krishnan et al. 2013, DeFond and Zhang 2014, Simnett, Carson et al. 2016). IAASB's framework for AQ which was published in 2014 offers a

comprehensive charter to understand and ensure AQ keeping in mind needs and interests all stakeholders.

The IAASB Framework for AQ (2014) aimed at providing following key objectives,

- Enhancing cognizes about the important components of AQ;
- Inspiring critical stakeholders to look for means for the enhancement of AQ;
- Encouraging and enabling improved discourse among major stakeholders about AQ.

Since IAASB Framework for AQ (2014) provides a comprehensive charter to ensure appropriate AQ, we have tried to examine which areas of the IAASB Framework has been researched in the last two decades.

As depicted in Figure-1, IAASB Framework for AQ comprehensively covers all aspects to ensure AQ. It describes different layers of processes, situations and important elements which may have direct or indirect influence on AQ. The IAASB Framework recognizes the importance of the truth and fairness of financial statements and emphasizes the importance of creating an environment where AQ is ensured. Therefore, IAASB Framework terms audit quality as a process comprehends critical elements that craft such an environment in which the likelihood of persistent quality audits are produced.

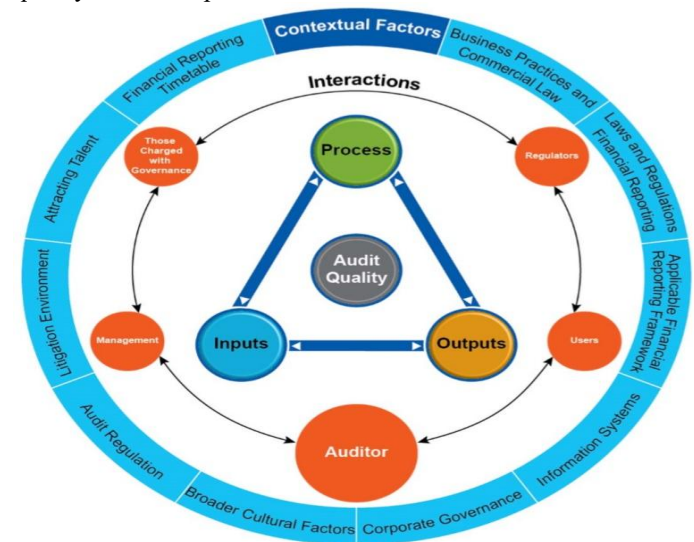


Figure 1: IAASB Framework for Audit Quality (2014)

Source: IAASB Framework for Audit Quality (2014)

The basic sets of elements of the AQ framework, as depicted in Figure-1, are as follows,

- Inputs / Process / Outputs
- Auditor's Interactions with different stakeholders
- Different contextual factors affecting AQ

Input/Process/Output are further classified into engagement level, firm level and national level.

Inputs

This important element refers to the inputs to the auditing process. Inputs to the auditing process include but not limited to, 1) values, attitudes and ethics of auditor, which are a byproduct of the audit

firm culture, 2) capabilities, knowledge of the auditor and the time allotted to them.

Process

Relates to how the actual process of auditing takes place. Whether the auditor used professional skepticism and due care while executing the audit. How carefully the auditor calculated materiality levels? Whether the auditor managed to acquire sufficient appropriate audit evidence to express their opinion.

Outputs

Outputs refer to the outcome of the audit process which is usually inform of an audit report in which the auditor expresses their opinion whether the financial statements are giving true and fair view in all material aspects.

Key Interactions

During the audit process, the auditor must interact with several stakeholders. Auditors have to acquire information about the client's system, policies and procedures, internal controls, and accounting policies and assumptions. So the quality and purposefulness of the interactions influence the fates of the audits. Refer to Figure-1, the IAASB framework identifies auditors' interactions with,

- 1) Those charged with governance (TCWG)
- 2) Management
- 3) Regulators
- 4) Users of the financial statements

Contextual Factors

Several contextual or environmental elements potentially influence the overall auditing process. These contextual factors are as follows,

- 1) Laws & Regulations Related to the Audit Industry
- 2) Stakeholders' Perspective / Corporate Governance
- 3) Strict Litigation Environment
- 4) Audit Industry/Structure
- 5) Financial Reporting Standards, Laws & Regulations
- 6) Culture/Business Practices
- 7) Stiff Financial reporting deadlines
- 8) Information System Quality

Auditing Archival Research with respect to Elements of the IAASB Framework for AQ (2014)

Archival Research in the Input Element of the AQ Framework.

The element related to Inputs to the auditing process, as described in the AQ Framework, is indeed one of the most important elements of the framework, as it enhances the likelihood of consistent-quality audits. 73% (n=62) of the archival research included in this paper relates to input elements. As discussed earlier, input elements are further classified as engagement, firm, and national levels. 51% (n=43) of the archival research included in this paper relates to the engagement level, 21% (n=18) to the firm level, and only 1% (n=1) to the national level. The details are discussed in Table 2 of the study.

[Insert Table 2 here]

Inputs element of AQ Framework refers to basic characteristics/features of the auditor, the auditing firm, as well as the contracting terms between the auditor and the client. Input elements are further classified into two categories, namely, 1)

Values, Ethics, and Attitudes of the auditor, 2) knowledge, skills, experience, and timelines.

Inputs Element: Values, Ethics and Attitude

Value, ethics and attitude refers to the independence, ethics and the attitude of the auditor towards executing the audit. DeAngelo (1981) proposed that AQ depends on the auditor's capability not only to identify ruptures in the client's financial records but also to exercise the freedom of expression of the same. Therefore, independence of the auditor is pivotal in the process of quality audits consistently. A careful examination of the articles included in current study enabled us to identify two key themes in the category of Values, Ethics and Attitudes, namely, 1) the association between auditor tenure (firm/partner) and AQ, 2) the association between Non-audit-services (NAS) fee / abnormal audit-fee and AQ. Both of these themes are discussed in the following sections.

Auditor tenure (firm/partner) and AQ

Regulators and standard setters believe that extended auditor (firm/partner) tenure may threaten auditor independence. As a result, regulators in many countries restrict auditor tenure. These restrictions are classified into two categories, namely, 1) auditor firm rotation and 2) audit engagement partner rotation.

Researchers around the world have been investigating this phenomenon for the last three decades. Despite extensive research in this area, researchers remain far from reaching a consensus. As shown in Table 3 of this research, 17% of the archival research included in the current review refers to the association between auditor tenure and AQ. Most of the researchers are of the view that since auditors lack client-specific knowledge during the early years of auditor-client relationship tenure, AQ deteriorates during the initial years of auditor-client association; thus, an increase in auditor tenure is associated with enhanced AQ (Ghosh & Moon 2005; Nagy, 2005; Chen et al., 2008; Bratten et al., 2019; Gaver & Utke, 2019; Singh et al., 2019; Garcia-Blandon et al., 2020).

[Insert Table 3 here]

Conversely, a researcher in the school of thought believes that an increase in auditor tenure results in a familiarity threat and, consequently, AQ deteriorates. Thus, limiting the auditor tenure will result in "fresh eyes" on the financial reports and consequently, AQ may enhance (Carey & Simnett, 2006; Al-Thuneibat et al., 2011; Litt et al., 2014). Besides the positive and negative association between tenure and AQ, some of the researchers concluded that tenure is not associated with AQ as the reputational and strict litigation environment restrain auditors from compromising AQ (Johnson et al., 2002; Jackson et al., 2008; Chi et al., 2009; Garcia-Blandon & Argiles-Bosch, 2017).

The association between NAS fee/ abnormal audit-fee and AQ.

Other aspects that can damage the independence of the auditor are NAS provided by the auditor and excessive auditing fees, considered by regulators and standard setters. Following the multibillion-dollar corporate scandals in the US, the Sarbanes-Oxley Act prohibits auditors from providing NAS. Unlike in the US, many international settings do not restrict the auditor's provision of non-auditing services.

The second major theme we observed while reviewing the archival literature is the association between NAS fee/abnormal audit fee and AQ (11%, n=9). Unlike the association between auditor tenure and AQ, majority of the researchers have consensus about the negative impact of NAS fee and AQ (Hoitash, Markelevich et al. 2007, Choi, Kim et al. 2010; Asthana and Boone 2012, Causholli, Chambers et al. 2014, Beardsley, Lassila et al. 2019), Lisic, Myers et al. 2019), with one exception who found a positive relationship between abnormal audit fee and AQ (Eshleman & Guo, 2014), while few researchers could not find significant relationship between the said relationship (Srinidhi & Gul, 2007; Campa, 2013; Lennox, 2016).

Inputs Elements: Knowledge, skills, experience and timelines

As discussed earlier, referring to the definition of AQ, the auditor's capability is also fundamental to consistently achieving quality audits. The second classification of input elements, as proposed by the IAASB's Framework for AQ, concerns the knowledge, skills, and experience of the auditor.

Three major themes were identified while reviewing the archival literature on auditing, namely, 1) the association between audit office size and AQ, 2) the association between audit office/partner business and AQ, and last but not least, 3) the association between joint audits and AQ. Please refer to Table 4. These themes have been discussed in the following section.

[Insert Table 4 here]

The association between audit office size and AQ

We identified that 8% (n=7) of the archival auditing studies included in the present study focused on the association between audit office size and AQ. Auditors that are bigger in size (normally denoted as Big 4 or Big 5), industry experts, and industry leaders are expected to produce high-quality audits persistently, as they have better resources (human & others), SOPs, and reputes; therefore, they do not want to be involved in litigation and do not want to harm their reputes. The majority of the researchers have consensus on the positive association between audit office size and AQ (Francis & Yu 2009; Choi et al., 2010; Choi et al. 2017; Anantharaman & Wans, 2019; Jiang et al., 2019), whereas, some of the researchers could not find significant association (Lawrence, Minutti-Meza et al. 2011, Sundgren and Svanström 2013).

The association between audit office/partner business and AQ

Another theme which was identified during the review of archival auditing research was the association between audit office/ partner business and AQ (6%, n=5). Majority of the researchers concluded that audit office/partner business deteriorates AQ (Vinten, Leventis et al. 2005, Chi, Lisic et al. 2011, López and Peters 2012, Bills, Swanquist et al. 2016), whereas no association between the said relationship was concluded by (Goodwin and Wu 2016).

The association between joint audits and AQ.

The third theme of this section relates to the provision of joint audits. Some of the international settings, France and Italy for instance, are required the audit to be executed by more than one audit firms jointly. The regulator and standard setters believe in high quality audits as a result of joint audits. 4% (n=3) of the total articles included in this review of archival auditing research were

related to this association. One researcher found a positive association between joint audit and AQ (Bianchi 2018), whereas two researchers could not find significant association between joint audits and AQ (Lobo, Paugam et al. 2017, Holm and Thinggaard 2018).

Process Elements of Framework of AQ

The second element of the framework of AQ relates to the actual process which enables the auditors to express their opinion whether the financial statements are presenting true and fair view, in all material aspects, of the financial positions and financial performance of the organization being audited. It is expected that the auditor will comply the ISAs and execute the audit professionally and with due care. The auditor is expected to maintain professional skepticism when assessing evidence provided by the client's staff. This auditing process enables the auditor to obtain sufficient and appropriate audit evidence to express their opinion.

Since the present study is limited to archival auditing research, we found only 3 articles that investigated the framework's process elements. One of the two studies, which used audit adjustments and the proxy for AQ, was conducted in China, and proposed that mandatory partner rotation enhances AQ (Lennox, Wu et al. 2014). The other study using audit adjustments as a proxy for AQ was also conducted in China and concluded that the language barrier deteriorates AQ (Deng, Xie et al. 2020).

Third research was conducted in Greece in 2005, in which the authors used audit efforts (actual hours worked while auditing) as the proxy for AQ and concluded a positive association between audit efforts and AQ (Vinten, Leventis et al. 2005).

Outputs Elements of Framework for AQ

The whole process of auditing aims to enable the auditor to present their point of view (in an auditor's report) on the reliability, credibility, and appropriateness of the financial information provided by the client's management. As depicted in Table 2 of this study, 23% (n=19) of the archival auditing research included in this paper focused on the output elements of the Framework for AQ.

A couple of themes were identified in output elements, namely, 1) the association between AQ and earnings management, and 2) the association between AQ and earnings predictability. Both of these themes are discussed in the following sections.

The association between AQ and earnings management

As described in Table-5 of the study, 7% (n=6) of the archival auditing researches were related to the association between AQ and earnings management. Most of the researchers, with only one exception was proposed a positive association between AQ and earnings management (Muttakin, Khan et al. 2017), concluded the negative association between AQ and earnings management (Chen, Chen et al. 2011, Burnett, Cripe et al. 2012, Alhadab and Clacher 2018, Choi, Choi et al. 2018), whereas, one author was unable find any significant association between AQ and earnings management (Maijor and Vanstraelen 2006).

[Insert Table 5 here]

The Association between AQ and earnings predictability

The second themes which was identified during the review of archival auditing research refers to the association between AQ and earnings predictability. Only 2% (n=2) of the archival auditing

research was carried out in this area (refer to Table-5). Researchers consider high AQ is positively associated with earnings predictability. This was empirically tested in a couple of researchers and concluded that higher AQ enhances earnings predictability (Behn et al., 2008; Hussainey, 2009).

Interactions of the auditor with different stakeholders

Table 6 of the study discusses auditors' interactions with different stakeholders. As discussed in the Framework for AQ, the auditors interact with TCWG, management, regulators and the users of the financial statements. It is assumed that the auditor will need to interact effectively with the aforementioned stakeholders to ensure consistent quality audits. As depicted in Table-6, 38% (n=32) of the archival auditing research referred to the interaction of auditors with the regulators, 39% (n=33) referred to the interaction between auditors and management, 15% (n=13) referred to the interaction between auditors and TCWG, last but not the least, only 7% (n=6) of the archival auditing research referred to the interaction between auditors and the users of the financial statements.

[Insert Table 6 here]

Contextual Factors

The IAASB Framework for AQ describes contextual factors that influence the overall audit environment and, ultimately, the probability of consistently executing quality audits. The archival auditing research conducted in these contexts is presented in Table 7. The details about the context searched are, *Laws & regulations related to audit industry* 33% (n=28), *Stakeholders Perspective & Interactions/Corporate Governance* 27% (n=23), *Audit Industry/Structure* 26% (n=22), *Financial Reporting Standards, Laws & Regulations* 4% (n=3), *Strict Litigation Environment* 4% (n=3), *Stiff Financial Reporting Deadlines* 2% (n=2), *Information System Quality* 1% (n=1), *Culture/Business Practices* 1% (n=1).

[Insert Table 7 here]

How AQ was measured in archival auditing research?

One of the main objectives of this review of archival auditing research was to determine how AQ was measured during last couple of decades. Table 8 shows the AQ measures in detail. AQ measures are further categorized into input, process, and output measures. Several papers included in this study used more than one measure of AQ (see Table 9); the details are discussed in the following sections.

[Insert Table 8 here]

AQ measures related to inputs are classified into two major themes, the details are as follows,

Inputs related measures of AQ (20%, n=28/143): Input-related measures are further classified into two sub-categories, namely, Auditor characteristics (12%, n=17/143), further categorized in, Big n auditors (6%, n=9/143), and Industry Specialists (6%, n=8/143). Audit Contracting Features (8%, n=11/143), further categorized into Audit fee/remuneration/fee premium (7%, n=10/143), and Audit profession development (1%, n=1/143).

Process-related measures of AQ (3%, n=4/143)

Only 2 types of process-related measures of AQ were identified in the archival research, namely, audit adjustments (2%, n=2/143), and audit efforts/actual audit hours (1%, n=1/143).

Output related measures of AQ (78%, n=111/143): Output related measures of AQ are further categorized into Auditor

communication (10%, n=14/143), further categorized as Going Concern/ Modified/Qualified opinion (10%, n=14/143).

Financial Reporting Quality (62%, n=89/143): Financial reporting quality is further categorized into, discretionary accruals/abnormal accruals (36%, n=52/143), meet or beat earnings forecast (6%, n=9/143), restatements (10%, n=14), disclosure of material internal control weakness (1%, n=2/143), SEC comment letter/SEC enforcements/late filing/disciplinary actions (2%, n=4/143). Market-based measures of AQ (6%, n=8/143): Market-based measures of AQ are further divided into two measures, the earnings response coefficient (6%, n=8/143), and the value relevance of earnings (1%, n=1/143).

Number of measures of AQ used in each paper

Over the last couple of decades, the use of multiple measures to compute AQ has increased.

[Insert Table 9 here]

As depicted in Table 9 of the study, the number of studies using more than one measure of AQ has increased from 2011 onwards. Overall, 54% (n=45/84) of the archival auditing research used only one measure to compute AQ, whereas 26% (n=22) of the studies used two measure of AQ, 15% (n=13) of the studies used three measure of AQ and last but not the least, 5% (n=4) of the studies used four measures or more to calculate AQ, out of four studies three were published in the period from 2016-2020.

Future Research Opportunities

One of the key objectives of this review was to identify potential future research opportunities in archival auditing. Though, all of the elements of AQ environment as prescribed by the Framework are important, yet the three critical elements (input/process/output) are pivotal to the whole auditing activity. Therefore, we limit future research opportunities to these three critical elements.

Research opportunities related to Input Elements

Standard setters and regulators perceive auditor independence as the key feature of consistent audit quality; therefore, limiting auditor tenure (to avoid the familiarity threat to independence) may enhance auditor independence and, consequently, improve AQ. Many jurisdictions around the world are either imposing mandatory auditor rotation, South Korea for instance, Kwon, Lim et al. (2014) or terminating this policy of mandatory auditor rotation, Spain for example, Ruiz-Barbadillo, Go' mez-Aguilar et al. (2009). Besides differences in laws and regulatory practices across jurisdictions worldwide, the researchers are far from consensus on the relationship between auditor tenure/engagement-partner tenure and AQ. Therefore, the association between tenure and AQ is still a potential archival-auditing research area.

Besides the long-standing debate over tenure and AQ, standard setters and regulators view NAS as another phenomenon harming auditor independence. Jurisdictions such as the US through SOX imposed restrictions on the provision of NAS by the auditor, whereas many other jurisdictions discourage the provision of NAS by the auditor, yet they have not yet banned these services by auditors, such as EU member countries and countries in emerging economies, such as Pakistan. This provides researchers with an opportunity to investigate the association between NAS and AQ to help regulators in preparing appropriate policies on provision of NAS.

Jurisdictions such as France, Italy and Denmark (Lobo, Paugam et al. (2017), Bianchi 2018, Holm and Thinggaard 2018) require organizations to be audited by joint auditors. The association between joint auditor and AQ is under-researched area yet. The research in this particular area will help other countries to adopt the policy of joint audits or vice versa.

Research opportunities related to Process Elements

As proposed by DeFond and Zhang (2014), the quality of the financial information depends jointly upon the efforts put by the management (while preparing financial statements) and how carefully auditor completed the auditing process. Only the research focusing process elements can separate these two by providing insights into the efforts put by the auditors while auditing. As shown in the Table 2 of the study, only four out of eighty four studies focused the process elements. Therefore, there is a vast gap for the researchers to explore this area. This may include but not limited to analyzing working papers quality, calculations regarding materiality, risk assessment, audit adjustments, applying professional skepticism and overall efforts put by auditors in form of actual audit hours/days.

Research opportunities related to Output Elements

As discussed in the initial part of this study, globalization, tremendous change in business dynamics and multi-billion dollar corporate scams highlighted the importance of transparency, accountability and disclosure. The audited financial statements enhance the credibility of the information, which ultimately help different stakeholders while taking their investment decisions. Therefore, the associations between enhanced disclosures (effectiveness and efficiency of internal controls, composition and activities of audit committee, composition and activities of board of directors, CSR disclosures and compliance of code of corporate governance) and the reactions of different stakeholders to these disclosures provide the researchers with future research opportunities with respect to different jurisdictions around the world.

CONCLUSION

As a result of globalization and rapid changes in business dynamics, auditing has become an international profession. Nevertheless, it is yet to be established whether the research undertaken on the said phenomena has contributed significantly in educating different stakeholders of auditing profession. Therefore, the objective of this study was to provide the readers with the insights about the archival auditing research undertaken during the last couple of decades. We identified that there is an increasing trend in archival auditing research. We gathered articles from the most influential auditing and accounting journals to identify which areas of IAASBs Framework have been explored, so far. We identified that 73% of the archival auditing research was carried out exploring input elements of the Framework. Furthermore, 28% of the archival-auditing researched focused value, ethics and attitude of the auditor while 18% focused on knowledge, skills and experience of the auditor and the time lines limitations. While, we could find only four articles out of eighty four which focused process elements of Framework, thus, hinting potential future research opportunities for the researchers.

We identified dispersion between regulations, laws and facilities encompassing auditing process across developed and emerging countries. Strict litigation environments such as US restrict provision of NAS by the auditor as opposed to the regulations in emerging economies which do not limit NAS. Furthermore, the disclosure of the name of audit-engagement-partner is required by many jurisdictions but still regulators in countries like Pakistan do not require the disclosure of the name of audit-engagement-partner which makes it difficult for the researchers to carry out their research. Besides, the factors discussed earlier, lack of data-bases in emerging economies creates hurdles in research activities, as there are hardly any data-bases in emerging economies (Pakistan, for instance) as compared to developed economies.

REFERENCES

- Al-Thuneibat, A. A., Al Issa, R. T. I., & Baker, R. A. A. (2011). Do audit tenure and firm size contribute to audit quality? Empirical evidence from Jordan. *Managerial Auditing Journal*, 26(4), 317–334. <https://doi.org/10.1108/02686901111124648>
- Albersmann, B. T., & Quick, R. (2020). The impact of audit quality indicators on the timeliness of goodwill impairments: Evidence from the German setting. *Abacus*, 56(1), 66–103.
- Alhadab, M., & Clacher, I. (2018). The impact of audit quality on real and accrual earnings management around IPOs. *The British Accounting Review*, 50(4), 442–461.
- Allen, A., & Woodland, A. (2010). Education requirements, audit fees, and audit quality. *Auditing: A Journal of Practice & Theory*, 29(2), 1–25.
- Anantharaman, D., & Wans, N. (2019). Audit office experience with SOX 404(b) filers and SOX 404 audit quality. *The Accounting Review*, 94(4), 1–43.
- Aobdia, D., Lin, C.-J., & Petacchi, R. (2015). Capital market consequences of audit partner quality. *The Accounting Review*, 90(6), 2143–2176.
- Asthana, S. C., & Boone, J. P. (2012). Abnormal audit fee and audit quality. *Auditing: A Journal of Practice & Theory*, 31(3), 1–22.
- Beardsley, E. L., Robinson, J. R., & Wong, M. H. F. (2019). How do audit offices respond to audit fee pressure? Evidence of increased focus on nonaudit services and their impact on audit quality. *Contemporary Accounting Research*, 36(2), 999–1027.
- Behn, B. K., Choi, J.-H., & Kang, T. (2008). Audit quality and properties of analyst earnings forecasts. *The Accounting Review*, 83(2), 327–349.
- Bianchi, P. A. (2018). Auditors' joint engagements and audit quality: Evidence from Italian private companies. *Contemporary Accounting Research*, 35(3), 1533–1577.
- Bills, K. L., Swanquist, Q. T., & Whited, R. L. (2016). Growing pains: Audit quality and office growth. *Contemporary Accounting Research*, 33(1), 288–313.
- Bratten, B., Causholli, M., & Ye, L. S. (2019). Audit firm tenure, bank complexity, and financial reporting quality. *Contemporary Accounting Research*, 36(1), 295–325.
- Burnett, B. M., Chen, H., & Gunny, K. A. (2012). Audit quality and the trade-off between accretive stock repurchases and

- accrual-based earnings management. *The Accounting Review*, 87(6), 1861–1884.
- Cahan, S. F., Emanuel, D., Glover, S., & Tylor, N. (2011). Did the Waste Management audit failures signal lower firm-wide audit quality at Arthur Andersen? *Contemporary Accounting Research*, 28(3), 859–891.
- Campa, D. (2013). "Big 4 fee premium" and audit quality: Latest evidence from UK listed companies. *Managerial Auditing Journal*, 28(8), 680–707. <https://doi.org/10.1108/MAJ-11-2012-0784>
- Carey, P., & Simnett, R. (2006). Audit partner tenure and audit quality. *The Accounting Review*, 81(3), 653–676.
- Causholli, M., Chambers, D. J., & Payne, J. L. (2014). Future nonaudit service fees and audit quality. *Contemporary Accounting Research*, 31(3), 681–712.
- Chen, C. Y., Lin, C.-J., & Lin, Y.-C. (2008). Audit partner tenure, audit firm tenure, and discretionary accruals: Does long auditor tenure impair earnings quality? *Contemporary Accounting Research*, 25(2), 415–445.
- Chen, H., Chen, J. Z., Lobo, G. J., & Wang, Y. (2011). Effects of audit quality on earnings management and cost of equity capital: Evidence from China. *Contemporary Accounting Research*, 28(3), 892–925.
- Chen, S., Sun, S. Y. J., & Wu, D. (2010). Client importance, institutional improvements, and audit quality in China: An office and individual auditor level analysis. *The Accounting Review*, 85(1), 127–158.
- Chi, W., Douthett, E. B., & Lisic, L. L. (2012). Client importance and audit partner independence. *Journal of Accounting and Public Policy*, 31(3), 320–336.
- Chi, W., Lisic, L. L., & Pevzner, M. (2011). Is enhanced audit quality associated with greater real earnings management? *Accounting Horizons*, 25(2), 315–335.
- Chi, W., Myers, L. A., Omer, T. C., & Teng, H. (2017). The effects of audit partner pre-client and client-specific experience on audit quality and on perceptions of audit quality. *Review of Accounting Studies*, 22(1), 361–391.
- Chi, W., Douthett, E. B., & Lisic, L. L. (2009). Mandatory audit partner rotation, audit quality, and market perception: Evidence from Taiwan. *Contemporary Accounting Research*, 26(2), 359–391.
- Choi, A., Choi, J.-H., & Sohn, B. C. (2018). The joint effect of audit quality and legal regimes on the use of real earnings management: International evidence. *Contemporary Accounting Research*, 35(4), 2225–2257.
- Choi, J.-H., Kim, C., Kim, J.-B., & Zang, Y. (2010). Do abnormally high audit fees impair audit quality? *Auditing: A Journal of Practice & Theory*, 29(2), 115–140.
- Choi, J.-H., Kim, C., Kim, J.-B., & Zang, Y. (2010). Audit office size, audit quality, and audit pricing. *Auditing: A Journal of Practice & Theory*, 29(1), 73–97.
- Choi, J.-H., Kim, F., Kim, J.-B., & Zang, Y. (2012). Geographic proximity between auditor and client: How does it impact audit quality? *Auditing: A Journal of Practice & Theory*, 31(2), 43–72.
- Choi, J. H., Kim, J. B., Qin, B., & Zang, Y. (2017). Did the 1998 merger of Price Waterhouse and Coopers & Lybrand increase audit quality? *Contemporary Accounting Research*, 34(2), 1071–1102.
- Christensen, B. E., Omer, T. C., Sharp, N. Y., & Shelley, M. K. (2019). Affiliated former partners on the audit committee: Influence on the auditor-client relationship and audit quality. *Auditing: A Journal of Practice & Theory*, 38(3), 95–119.
- Czerney, K., Schmidt, J. J., & Thompson, A. M. (2019). Client deadline concentration in audit offices and audit quality. *Auditing: A Journal of Practice & Theory*, 38(4), 55–75.
- Dao, M., Raghunandan, K., & Rama, D. V. (2012). Shareholder voting on auditor selection, audit fees, and audit quality. *The Accounting Review*, 87(1), 149–171.
- Dao, M., Xu, H., & Ramos, J. (2019). Impact of the disclosure of audit engagement partners on audit quality: Evidence from the USA. *International Journal of Auditing*, 23(1), 112–124.
- DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, 3(3), 183–199.
- DeFond, M., & Zhang, J. (2014). A review of archival auditing research. *Journal of Accounting and Economics*, 58(2–3), 275–326.
- Deng, Y., Lu, L., Simunic, D., & Ye, M. (2020). Beg your pardon? The effect of communication costs on audit quality. *Accounting and Business Research*, 50(5), 479–507.
- Deumes, R., Schelleman, C., Bauwhede, H. V., & Vanstraelen, A. (2012). Audit firm governance: Do transparency reports reveal audit quality? *Auditing: A Journal of Practice & Theory*, 31(4), 193–214.
- Dhaliwal, D., Naiker, V., & Navissi, F. (2010). The association between accruals quality and the characteristics of accounting experts and mix of expertise on audit committees. *Contemporary Accounting Research*, 27(3), 787–827.
- Ernstberger, J., Koch, C., Stockinger, F. N., & Trompeter, G. (2020). Are audit firms' compensation policies associated with audit quality? *Contemporary Accounting Research*, 37(1), 218–244.
- Eshleman, J. D., & Guo, P. (2014). Abnormal audit fees and audit quality: The importance of considering managerial incentives in tests of earnings management. *Auditing: A Journal of Practice & Theory*, 33(1), 117–138.
- Florou, A., Kosi, U., & Pope, P. F. (2020). Proactive financial reporting enforcement: Audit fees and financial reporting quality effects. *The Accounting Review*, 95(2), 167–197.
- Francis, J. R. (2011). A framework for understanding and researching audit quality. *Auditing: A Journal of Practice & Theory*, 30(2), 125–152.
- Francis, J. R., & Yu, M. D. (2009). Big 4 office size and audit quality. *The Accounting Review*, 84(5), 1521–1552.
- Gaaya, S., Lakhal, N., & Lakhal, F. (2017). Does family ownership reduce corporate tax avoidance? The moderating effect of audit quality. *Managerial Auditing Journal*, 32(7), 731–744. <https://doi.org/10.1108/MAJ-02-2017-1530>
- Garcia-Blandon, J., & Argiles-Bosch, J. M. (2017). The interaction effects of firm and partner tenure on audit quality. *Accounting and Business Research*, 47(7), 810–830.

- Garcia-Blandon, J., Argiles-Bosch, J. M., & Castillo-Merino, D. (2020). Audit firm tenure and audit quality: A cross-European study. *Journal of International Financial Management & Accounting*, 31(1), 35–64.
- Gaver, J. J., & Utke, S. (2019). Audit quality and specialist tenure. *The Accounting Review*, 94(3), 113–147.
- Ghafran, C., & O'Sullivan, N. (2017). The impact of audit committee expertise on audit quality: Evidence from UK audit fees. *The British Accounting Review*, 49(6), 578–593.
- Chen, K. Y., Lin, K.-L., & Zhou, J. (2005). Audit quality and earnings management for Taiwan IPO firms. *Managerial Auditing Journal*, 20(1), 86–104. <https://doi.org/10.1108/02686900510570722>
- Ghosh, A., & Moon, D. (2005). Auditor tenure and perceptions of audit quality. *The Accounting Review*, 80(2), 585–612.
- Goodwin, J., & Wu, D. (2016). What is the relationship between audit partner busyness and audit quality? *Contemporary Accounting Research*, 33(1), 341–377.
- Gul, F. A., Wu, D., & Yang, Z. (2013). Do individual auditors affect audit quality? Evidence from archival data. *The Accounting Review*, 88(6), 1993–2023.
- Gunn, J. L., & Michas, P. N. (2018). Auditor multinational expertise and audit quality. *The Accounting Review*, 93(4), 203–224.
- He, X., Pittman, J. A., Rui, O. M., & Wu, D. (2017). Do social ties between external auditors and audit committee members affect audit quality? *The Accounting Review*, 92(5), 61–87.
- Hoitash, R., Markelevich, A., & Barragato, C. A. (2007). Auditor fees and audit quality. *Managerial Auditing Journal*, 22(8), 761–786. <https://doi.org/10.1108/02686900710819634>
- Holm, C., & Thinggaard, F. (2018). From joint to single audits – audit quality differences and auditor pairings. *Accounting and Business Research*, 48(3), 321–344.
- Hussainey, K. (2009). The impact of audit quality on earnings predictability. *Managerial Auditing Journal*, 24(4), 340–351. <https://doi.org/10.1108/02686900910948189>
- Jackson, A. B., Moldrich, M., & Roebuck, P. (2008). Mandatory audit firm rotation and audit quality. *Managerial Auditing Journal*, 23(5), 420–437. <https://doi.org/10.1108/02686900810875271>
- Jiang, J., Wang, I. Y., & Wang, K. P. (2019). Big N auditors and audit quality: New evidence from quasi-experiments. *The Accounting Review*, 94(1), 205–227.
- Johnson, V. E., Khurana, I. K., & Reynolds, J. K. (2002). Audit-firm tenure and the quality of financial reports. *Contemporary Accounting Research*, 19(4), 637–660.
- Kallunki, J., Nilsson, H., Sahlstrom, P., & Tylaite, M. (2019). IQ and audit quality: Do smarter auditors deliver better audits? *Contemporary Accounting Research*, 36(3), 1373–1416.
- Khelif, H., & Samaha, K. (2016). Audit committee activity and internal control quality in Egypt: Does external auditor's size matter? *Managerial Auditing Journal*, 31(3), 269–289. <https://doi.org/10.1108/MAJ-08-2014-1084>
- Knechel, W. R., Krishnan, G. V., Pevzner, M., Shefchik, L. B., & Velury, U. K. (2013). Audit quality: Insights from the academic literature. *Auditing: A Journal of Practice & Theory*, 32(Suppl. 1), 385–421.
- Krishnan, G. V., Krishnan, J., & Song, H. (2017). PCAOB international inspections and audit quality. *The Accounting Review*, 92(5), 143–166.
- Kumar, K., & Lim, L. (2015). Was Andersen's audit quality lower than its peers? A comparative analysis of audit quality. *Managerial Auditing Journal*, 30(8–9), 911–962. <https://doi.org/10.1108/MAJ-10-2014-1105>
- Kwon, S. Y., Lim, Y., & Simnett, R. (2014). The effect of mandatory audit firm rotation on audit quality and audit fees: Empirical evidence from the Korean audit market. *Auditing: A Journal of Practice & Theory*, 33(4), 167–196.
- Lambert, T. A., Jones, K. L., Brazel, J. F., & Showalter, D. S. (2017). Audit time pressure and earnings quality: An examination of accelerated filings. *Accounting, Organizations and Society*, 58, 50–66.
- Lamoreaux, P. T., Litvinov, M., & Mauler, L. (2015). Do accounting and audit quality affect World Bank lending? *The Accounting Review*, 90(2), 703–738.
- Lawrence, A., Minutti-Meza, M., & Zhang, P. (2011). Can Big 4 versus non-Big 4 differences in audit-quality proxies be attributed to client characteristics? *The Accounting Review*, 86(1), 259–286.
- Lee, H. S., Li, X., & Sami, H. (2019). Audit partner assignments and audit quality in the United States. *The Accounting Review*, 94(2), 297–323.
- Lennox, C. S. (2016). Did the PCAOB's restrictions on auditors' tax services improve audit quality? *The Accounting Review*, 91(5), 1493–1512.
- Lennox, C. S., Wu, X., & Zhang, T. (2014). Does mandatory rotation of audit partners improve audit quality? *The Accounting Review*, 89(5), 1775–1803.
- Leventis, S., & Caramanis, C. (2005). Determinants of audit time as a proxy of audit quality. *Managerial Auditing Journal*, 20(5), 460–478. <https://doi.org/10.1108/02686900510598821>
- Lisic, L. L., Myers, L. A., Pawlewicz, R., & Seidel, T. A. (2019). Do accounting firm consulting revenues affect audit quality? Evidence from the pre- and post-SOX eras. *Contemporary Accounting Research*, 36(2), 1028–1054.
- Litt, B., Sharma, D. S., Simpson, T., & Tanyi, P. N. (2014). Audit partner rotation and financial reporting quality. *Auditing: A Journal of Practice & Theory*, 33(3), 59–86.
- Lobo, G. J., Ramanna, K., & Zhao, Y. (2017). The effect of joint auditor pair composition on audit quality: Evidence from impairment tests. *Contemporary Accounting Research*, 34(1), 118–153.
- López, D. M., & Peters, G. F. (2012). The effect of workload compression on audit quality. *Auditing: A Journal of Practice & Theory*, 31(4), 139–165.
- Maijor, S. J., & Vanstraelen, A. (2006). Earnings management within Europe: The effects of member state audit environment, audit firm quality and international capital markets. *Accounting and Business Research*, 36(1), 33–52.
- Muttakin, M. B., Khan, A., & Mihret, D. G. (2017). Business group affiliation, earnings management and audit quality:

- Evidence from Bangladesh. *Managerial Auditing Journal*, 32(4–5), 427–444. <https://doi.org/10.1108/MAJ-01-2016-1310>
- Nagy, A. L. (2005). Mandatory audit firm turnover, financial reporting quality, and client bargaining power: The case of Arthur Andersen. *Accounting Horizons*, 19(2), 51–68.
- Park, B. J. (2019). Audit committees and managerial influence on audit quality: 'Voluntary' versus 'mandatory' approach to corporate governance. *Australian Accounting Review*, 29(1), 266–280.
- Pincus, M., Tong, Y. H., & Yin, H. (2017). Do clients' enterprise systems affect audit quality and efficiency? *Contemporary Accounting Research*, 34(4), 1975–2021.
- Reid, L. C., Carcello, J. V., Li, C., Neal, T. L., & Francis, J. R. (2019). Impact of auditor report changes on financial reporting quality and audit costs: Evidence from the United Kingdom. *Contemporary Accounting Research*, 36(3), 1501–1539.
- Ruiz-Barbadillo, E., Gomez-Aguilar, N., & Carrera, N. (2009). Does mandatory audit firm rotation enhance auditor independence? Evidence from Spain. *Auditing: A Journal of Practice & Theory*, 28(1), 113–135.
- Schroeder, J. H. (2016). The impact of audit completeness and quality on earnings announcement GAAP disclosures. *The Accounting Review*, 91(2), 677–705.
- Simnett, R., Carson, E., & Vanstraelen, A. (2016). International archival auditing and assurance research: Trends, methodological issues, and opportunities. *Auditing: A Journal of Practice & Theory*, 35(3), 1–32.
- Singh, A., Sharma, V., & Bhagat, A. (2019). Independent and joint effects of audit partner tenure and non-audit fees on audit quality. *Journal of Contemporary Accounting & Economics*, 15(2), 186–205.
- Srinidhi, B. N., & Gul, F. A. (2007). The differential effects of auditors' nonaudit and audit fees on accrual quality. *Contemporary Accounting Research*, 24(2), 595–629.
- Sun, J., & Liu, G. (2011). Client-specific litigation risk and audit quality differentiation. *Managerial Auditing Journal*, 26(4), 300–316. <https://doi.org/10.1108/02686901111124639>
- Sundgren, S., & Svanström, T. (2013). Audit office size, audit quality and audit pricing: Evidence from small- and medium-sized enterprises. *Accounting and Business Research*, 43(1), 31–55.
- Trochim, W., & Donnelly, J. P. (2008). *The research methods knowledge base* (3rd ed.). Atomic Dog Publishing.
- Venkataraman, R., Weber, J. P., & Willenborg, M. (2008). Litigation risk, audit quality, and audit fees: Evidence from initial public offerings. *The Accounting Review*, 83(5), 1315–1345.
- Wang, D., & Zhou, J. (2012). The impact of PCAOB Auditing Standard No. 5 on audit fees and audit quality. *Accounting Horizons*, 26(3), 493–511.
- Yeung, W. H., & Lento, C. (2018). Ownership structure, audit quality, board structure, and stock price crash risk: Evidence from China. *Global Finance Journal*, 37, 1–24

Table 1: Year Wise & Journal Wise Publication

Sr. No.	Journal Title	ABDC - 2019 Rating	Total	2001 - 2005	2006 - 2010	2011 - 2015	2016 - 2020	Journal Publ. %
1	Abacus	A	4			1	3	1.71%
2	Accounting and Business Research	A	10		1	3	6	4.27%
3	Accounting Horizons	A	4	1		3		1.71%
4	Accounting Organizations and Society	A*	4			2	2	1.71%
5	Auditing-A Journal of Practice & Theory	A*	21		5	13	2	8.97%
6	British Accounting Review	A*	4	1		2	2	1.71%
7	Contemporary Accounting Research	A*	36	3	8	9	16	15.38%
8	Global Finance Journal	A	1				1	0.43%
9	International Journal of Auditing	A	32	5	5	10	12	13.68%
10	Journal of Accounting & Economics	A*	7	1		2	4	2.99%
11	Journal of Accounting and Public Policy	A	16	1	5	5	5	6.84%
12	Journal of Accounting Literature	A	2				2	0.85%
13	Journal of Accounting Research	A*	9		3	4	2	3.85%
14	Journal of Banking & Finance	A*	2			2		0.85%
15	Journal of Contemporary Accounting & Economics	A	8	1	1	3	3	3.42%
16	Journal of Financial Economics	A*	1		1			0.43%
17	Journal of International Financial Markets, Institutions and Money	A	2			1	1	0.85%
18	Managerial Auditing Journal	A	25	2	6	11	6	10.68%
19	Review of Accounting Studies	A*	7	2		2	3	2.99%
20	Accounting Review	A*	39	4	9	11	15	16.67%
Total Number of Publications Each Year Each Journal			234	21	44	84	85	100.00%
% of Publications each year				9%	19%	36%	36%	100.00%

Table 2: Input/Processing/Output & Engagement, Firm and National Level

Inputs / Processing / Outputs	Engagement Level	Firm Level	National Level
Inputs <i>n=62/84 (73%)</i> Engagement Level <i>n=43/84 (51%)</i> Firm Level <i>n=18/84 (21%)</i> National Level <i>n=1/84 (1%)</i>	(Singh, Singh et al. 2019), (Park 2019), (Gaver and Utke 2019), (Dao, Xu et al. 2019), (Lambert, Jones et al. 2017), (Allen and Woodland 2010), (Choi, Kim et al. 2010), (Asthana and Boone 2012), (López and Peters 2012), (Eshleman and Guo 2014), (Litt, Sharma et al. 2014), (Czerney, Jang et al. 2019), (Christensen, Omer et al. 2019), (Johnson, Khurana et al. 2002), (Chi, Huang et al. 2009), (Srinidhi and Gul 2007), (Chen, Lin et al. 2008), (Dhaliwal, Naiker et al. 2010), (Caussholli, Chambers et al. 2014), (Goodwin and Wu 2016), (Lobo, Paugam et al. 2017), (Bianchi 2018), (Lisic, Myers et al. 2019), (Pincus, Tian et al. 2017), (Bratten, Caussholli et al. 2019), (Kallunki, Kallunki et al. 2019), (Garcia-Blandon and Argiles-Bosch 2017), (Holm and Thinggaard 2018), (Ghafran and O'Sullivan 2017), (Ghosh and Moon 2005), (Carey and Simnett 2006), (Venkataraman, Weber et al. 2008), (Chen, Sun et al. 2010), (Gul, Wu et al. 2013), (Dao, Raghunandan et al. 2012), (Lennox 2016), (He, Pittman et al. 2017), (Lee, Nagy et al. 2019), (Anantharaman and Wans 2019), (Florou, Morricone et al. 2020), (Hoitash, Markelevich et al. 2007), (Sun and Liu 2011), (Campa 2013),	(Garcia-Blandon, Argiles-Bosch et al. 2020), (Choi, Kim et al. 2010), (Choi, Kim et al. 2012), (Cahan, Zhang et al. 2011), (Bills, Swanquist et al. 2016), (Choi, Kim et al. 2017), (Beardsley, Lassila et al. 2019), (Ernstberger, Koch et al. 2020), (Sundgren and Svanström 2013), (Nagy 2005), (Francis and Yu 2009), (Lawrence, Minutti-Meza et al. 2011), (Krishnan, Krishnan et al. 2017), (Gunn and Michas 2018), (Jiang, Wang et al. 2019), (Jackson, Moldrich et al. 2008), (Al-Thuneibat, Al Issa et al. 2011), (Kumar and Lim 2015),	(Wang and Zhou 2012),
Process <i>n=3/84 (4%)</i> Outputs <i>n=19/84 (23%)</i> Engagement Level <i>n=8/84 (10%)</i> Firm Level <i>n=8/84 (10%)</i> National Level <i>n=3/84 (3%)</i>	(Deng, Xie et al. 2020), (Lennox, Wu et al. 2014), (Vinten, Leventis et al. 2005), (Albersmann and Quick 2020), (Alhadab and Clacher 2018), (Yeung and Lento 2018), (Behn, Choi et al. 2008), (Aobdia, Lin et al. 2015), (Schroeder 2016), (Vinten, Chen et al. 2005), (Hussainey 2009),	(Deumes, Schelleman et al. 2012), (Chen, Chen et al. 2011), (Choi, Choi et al. 2018), (Chi, Lisic et al. 2011), (Burnett, Cripe et al. 2012), (Gaaya, Lakhal et al. 2017), (Muttakin, Khan et al. 2017), (Khelif and Samaha 2016),	(Reid, Carcello et al. 2019), (Maijor and Vanstraelen 2006), (Lamoreaux, Michas et al. 2015),

Table-3- Key Themes in Values, Ethics & Attitudes (Inputs)

Themes	AQ Improved	Mixed Results / Not Affected	AQ Deteriorated
The Association between auditor tenure (firm/partner) and AQ. <i>n=14/84 (17%)</i>	(Garcia-Blandon, Argiles-Bosch et al. 2020), (Singh, Singh et al. 2019), (Gaver and Utke 2019), (Chen, Lin et al. 2008), (Bratten, Caussholli et al. 2019), (Nagy 2005), (Ghosh and Moon 2005),	(Johnson, Khurana et al. 2002), (Chi, Huang et al. 2009), (Garcia-Blandon and Argiles-Bosch 2017), (Jackson, Moldrich et al. 2008),	(Litt, Sharma et al. 2014), (Carey and Simnett 2006), (Al-Thuneibat, Al Issa et al. 2011),
The association between Non-audit services fee/ abnormal audit fee and AQ <i>n=9/84 (11%)</i>	(Eshleman and Guo 2014),	(Srinidhi and Gul 2007), (Lennox 2016), (Campa 2013),	(Choi, Kim et al. 2010), (Asthana and Boone 2012), (Caussholli, Chambers et al. 2014), (Lisic, Myers et al. 2019), (Beardsley, Lassila et al. 2019), (Hoitash, Markelevich et al. 2007),

Table-4- Key Themes in Knowledge, Skills, Experience & Timelines (Inputs)

Themes	AQ Improved	Mixed Results / Not Affected	AQ Deteriorated
Joint Audits & AQ <i>n=3/84 (4%)</i>	(Bianchi 2018),	(Lobo, Paugam et al. 2017), (Holm and Thinggaard 2018),	
Audit Office Size & AQ <i>n=7/84 (8%)</i>	(Choi, Kim et al. 2010), (Choi, Kim et al. 2017), (Francis and Yu 2009), (Anantharaman and Wans 2019), (Jiang, Wang et al. 2019),	(Sundgren and Svanström 2013), (Lawrence, Minutti-Meza et al. 2011),	
Audit office/partner Busyness & AQ <i>n=5/84 (6%)</i>		(Goodwin and Wu 2016),	(López and Peters 2012), (Bills, Swanquist et al. 2016), (Chi, Lisic et al. 2011), (Vinten, Chen et al. 2005),

Table-5- Key Theme in Outputs

Themes	Positive Impact of Audit	Mixed Results / Not Affected	Negative Impact of AQ
The association between AQ and Earnings Management <i>n=6/84 (7%)</i>	(Muttakin, Khan et al. 2017),	(Maijor and Vanstraelen 2006),	(Chen, Chen et al. 2011), (Choi, Choi et al. 2018), (Alhadab and Clacher 2018), (Burnett, Cripe et al. 2012),
The association between AQ and Earnings Predictability <i>n=2/84 (2%)</i>	(Behn, Choi et al. 2008), (Hussainey 2009),		

Table-6- Key Interactions of Auditors

Key Interactions	Articles
Auditor-Regulators <i>n=32/84 (38%)</i>	(Garcia-Blandon, Argiles-Bosch et al. 2020), (Dao, Xu et al. 2019), (Lambert, Jones et al. 2017), (Allen and Woodland 2010), (Deumes, Schelleman et al. 2012), (Litt, Sharma et al. 2014), (Czerney, Jang et al. 2019), (Reid, Carcello et al. 2019), (Bratten, Caussholli et al. 2019), (Johnson, Khurana et al. 2002), (Chi, Huang et al. 2009), (Chen, Lin et al. 2008), (Cahan, Zhang et al. 2011), (Lobo, Paugam et al. 2017), (Ernstberger, Koch et al. 2020), (Sundgren and Svanström 2013), (Garcia-Blandon and Argiles-Bosch 2017), (Holm and Thinggaard 2018), (Nagy 2005), (Wang and Zhou 2012), (Carey and Simnett 2006), (Venkataraman, Weber et al. 2008), (Chen, Sun et al. 2010),

	al. 2010), (Dao, Raghunandan et al. 2012), (Lennox, Wu et al. 2014), (Lennox 2016), (Krishnan, Krishnan et al. 2017), (Anantharaman and Wans 2019), (Florou, Morricone et al. 2020), (Vinten, Leventis et al. 2005), (Jackson, Moldrich et al. 2008), (Al-Thuneibat, Al Issa et al. 2011).
Auditor- Management <i>n=33/84 (39%)</i>	(Albersmann and Quick 2020), (Singh, Singh et al. 2019), (Park 2019), (Gaver and Utke 2019), (Choi, Kim et al. 2010), (Choi, Kim et al. 2012), (Srinidhi and Gul 2007), (Chen, Chen et al. 2011), (Causholli, Chambers et al. 2014), (Bills, Swanquist et al. 2016), (Goodwin and Wu 2016), (Bianchi 2018), (Choi, Kim et al. 2017), (Choi, Choi et al. 2018), (Lisic, Myers et al. 2019), (Pincus, Tian et al. 2017), (Beardsley, Lassila et al. 2019), (Kallunki, Kallunki et al. 2019), (Majoor and Vanstraelen 2006), (Deng, Xie et al. 2020), (Chi, Lisic et al. 2011), (Alhadab and Clacher 2018), (Yeung and Lento 2018), (Francis and Yu 2009), (Gul, Wu et al. 2013), (Lawrence, Minutti-Meza et al. 2011), (Burnett, Cripe et al. 2012), (Gunn and Michas 2018), (Vinten, Chen et al. 2005), (Sun and Liu 2011), (Kumar and Lim 2015), (Gaaya, Lakhal et al. 2017), (Muttakin, Khan et al. 2017).
Auditors- Those Charged with Governance <i>n=3/84 (15%)</i>	(Choi, Kim et al. 2010), (Asthana and Boone 2012), (López and Peters 2012), (Eshleman and Guo 2014), (Christensen, Omer et al. 2019), (Dhaliwal, Naiker et al. 2010), (Ghafran and O'Sullivan 2017), (He, Pittman et al. 2017), (Lee, Nagy et al. 2019), (Jiang, Wang et al. 2019), (Hoitash, Markelevich et al. 2007), (Campa 2013), (Khelif and Samaha 2016).
Auditors-Users of Financial Statements <i>n=6/84 (7%)</i>	(Ghosh and Moon 2005), (Behn, Choi et al. 2008), (Lamoreaux, Michas et al. 2015), (Aobdia, Lin et al. 2015), (Schroeder 2016), (Hussainey 2009),

Table-7- Contextual Factors

Contexts	Articles
Laws & Regulations Related to Audit Industry <i>n=28/84 (33%)</i>	(Garcia-Blandon, Argilés-Bosch et al. 2020), (Singh, Singh et al. 2019), (Dao, Xu et al. 2019), (Allen and Woodland 2010), (Deumes, Schelleman et al. 2012), (Litt, Sharma et al. 2014), (Johnson, Khurana et al. 2002), (Chi, Huang et al. 2009), (Lobo, Paugam et al. 2017), (Bratten, Causholli et al. 2019), (Reid, Carcello et al. 2019), (Majoor and Vanstraelen 2006), (Garcia-Blandon and Argiles-Bosch 2017), (Holm and Thinggaard 2018), (Nagy 2005), (Wang and Zhou 2012), (Ghosh and Moon 2005), (Carey and Simnett 2006), (Chen, Sun et al. 2010), (Dao, Raghunandan et al. 2012), (Lennox, Wu et al. 2014), (Aobdia, Lin et al. 2015), (Lennox 2016), (Krishnan, Krishnan et al. 2017), (Florou, Morricone et al. 2020), (Vinten, Leventis et al. 2005), (Hoitash, Markelevich et al. 2007), (Jackson, Moldrich et al. 2008),
Financial Reporting Standards, Laws & Regulations <i>n=3/84 (4%)</i>	(Albersmann and Quick 2020), (Sundgren and Svanström 2013), (Schroeder 2016),
Stakeholders Perspective & Interactions/Corporate Governance <i>n=23/84 (27%)</i>	(Park 2019), (Choi, Kim et al. 2010), (Asthana and Boone 2012), (Eshleman and Guo 2014), (Christensen, Omer et al. 2019), (Srinidhi and Gul 2007), (Chen, Lin et al. 2008), (Dhaliwal, Naiker et al. 2010), (Chen, Chen et al. 2011), (Causholli, Chambers et al. 2014), (Kallunki, Kallunki et al. 2019), (Chi, Lisic et al. 2011), (Alhadab and Clacher 2018), (Ghafran and O'Sullivan 2017), (Yeung and Lento 2018), (Behn, Choi et al. 2008), (He, Pittman et al. 2017), (Lee, Nagy et al. 2019), (Hussainey 2009), (Al-Thuneibat, Al Issa et al. 2011), (Gaaya, Lakhal et al. 2017), (Muttakin, Khan et al. 2017), (Khelif and Samaha 2016),
Audit Industry / Structure <i>n=22/84 (26%)</i>	(Gaver and Utke 2019), (Choi, Kim et al. 2010), (Choi, Kim et al. 2012), (López and Peters 2012), (Cahan, Zhang et al. 2011), (Bills, Swanquist et al. 2016), (Goodwin and Wu 2016), (Bianchi 2018), (Choi, Kim et al. 2017), (Lisic, Myers et al. 2019), (Beardsley, Lassila et al. 2019), (Ernstberger, Koch et al. 2020), (Francis and Yu 2009), (Gul, Wu et al. 2013), (Lawrence, Minutti-Meza et al. 2011), (Burnett, Cripe et al. 2012), (Gunn and Michas 2018), (Anantharaman and Wans 2019), (Jiang, Wang et al. 2019), (Vinten, Chen et al. 2005), (Campa 2013), (Kumar and Lim 2015),
Stiff Financial Reporting Deadlines <i>n=2/84 (2%)</i>	(Lambert, Jones et al. 2017), (Czerney, Jang et al. 2019)
Strict Litigation Environment <i>n=3/84 (4%)</i>	(Choi, Choi et al. 2018), (Venkataraman, Weber et al. 2008), (Sun and Liu 2011),
Information System Quality <i>n=1/84 (1%)</i>	(Pincus, Tian et al. 2017),
Cultural/Business Practices <i>n=1/84 (1%)</i>	(Deng, Xie et al. 2020),
Others <i>n=1/84 (1%)</i>	(Lamoreaux, Michas et al. 2015),

Table-8- Measurements of AQ

	Measurement	2001 – 2005	2006 - 2010	2011 – 2015	2016 – 2020
Input <i>n=28/143 (20%)</i>					
Auditor Characteristics <i>n=17/143 (12%)</i>	Big N <i>n=9/143 (6%)</i>		(Majoor and Vanstraelen 2006), (Behn, Choi et al. 2008), (Hussainey 2009),	(Chi, Lisic et al. 2011),	(Albersmann and Quick 2020), (Choi, Choi et al. 2018), (Alhadab and Clacher 2018), (Yeung and Lento 2018), (Schroeder 2016),
	Industry Specialist <i>n=8/143 (6%)</i>	(Vinten, Chen et al. 2005),	(Behn, Choi et al. 2008),	(Chi, Lisic et al. 2011), (Burnett, Cripe et al. 2012),	(Yeung and Lento 2018), (Gaaya, Lakhal et al. 2017), (Muttakin, Khan et al. 2017), (Khelif and Samaha 2016)
Contracting Features <i>n=11/143 (8%)</i>	Audit fees, auditor remuneration, audit fee premium <i>n=10/143 (7%)</i>		(Allen and Woodland 2010), (Choi, Kim et al. 2010)	(Sundgren and Svanström 2013), (Chi, Lisic et al. 2011),	(Albersmann and Quick 2020), (Park 2019), (Ghafran and O'Sullivan 2017), (Yeung and Lento 2018), (Schroeder 2016), (Lee, Nagy et al. 2019),
	Audit Profession Development (Michas 2011) <i>n=1/143 (1%)</i>			(Lamoreaux, Michas et al. 2015),	
Process <i>(n=4/143 (3%))</i>					
	Audit Effort/ Actual Audit Hours <i>n=1/143 (1%)</i>	(Vinten, Leventis et al. 2005),			
	Audit Adjustments <i>n=2/143 (2%)</i>			(Lennox, Wu et al. 2014),	(Deng, Xie et al. 2020),
Output <i>(n=111/143 (78%))</i>					
Auditor Communication <i>n=14/143 (10%)</i>	Going concern/modified/qualified audit opinions <i>n=14/143 (10%)</i>		(Carey and Simnett 2006), (Francis and Yu 2009), (Chen, Sun et al. 2010), (Jackson, Moldrich et al. 2008),	(Chen, Chen et al. 2011), (Gul, Wu et al. 2013), (Kumar and Lim 2015),	(Goodwin and Wu 2016), (Bianchi 2018), (Choi, Kim et al. 2017), (Pincus, Tian et al. 2017), (Yeung and Lento 2018), (Lennox 2016), (He, Pittman et al. 2017),
Financial Reporting Quality <i>n=89/143 (62%)</i>	Discretionary accruals, cumulative discretionary accruals <i>n=52/143 (36%)</i>	(Johnson, Khurana et al. 2002), (Nagy 2005),	(Allen and Woodland 2010), (Choi, Kim et al. 2010), (Choi, Kim et al. 2012), (Chi, Huang et al. 2009), (Srinidhi and Gul 2007), (Chen, Lin et al. 2008), (Dhaliwal, Naiker et al. 2010), (Carey and Simnett 2006), (Venkataraman, Weber et al. 2008), (Francis and Yu 2009), (Hoitash, Markelevich et al. 2007), (Jackson, Moldrich et al. 2008),	(Deumes, Schelleman et al. 2012), (Asthana and Boone 2012), (Choi, Kim et al. 2012), (López and Peters 2012), (Eshleman and Guo 2014), (Litt, Sharma et al. 2014), (Cahan, Zhang et al. 2011), (Causholli, Chambers et al. 2014), (Wang and Zhou 2012), (Gul, Wu et al. 2013), (Lawrence, Minutti-Meza et al. 2011), (Dao, Raghunandan et al. 2012), (Lennox, Wu et al. 2014), (Aobdia, Lin et al. 2015), (Al-Thuneibat, Al Issa et al. 2011), (Sun and Liu 2011), (Campa 2013), (Kumar and Lim 2015),	(Garcia-Blandon, Argilés-Bosch et al. 2020), (Singh, Singh et al. 2019), (Gaver and Utke 2019), (Dao, Xu et al. 2019), (Lambert, Jones et al. 2017), (Czerney, Jang et al. 2019), (Bills, Swanquist et al. 2016), (Goodwin and Wu 2016), (Bianchi 2018), (Choi, Kim et al. 2017), (Pincus, Tian et al. 2017), (Bratten, Causholli et al. 2019), (Ernstberger, Koch et al. 2020), (Reid, Carcello et al. 2019), (Garcia-Blandon and Argiles-Bosch 2017), (Holm and Thinggaard 2018), (Krishnan, Krishnan et al. 2017), (Lee, Nagy et al. 2019), (Florou, Morricone et al. 2020), (Jiang, Wang et al. 2019),
	Meet or beat earnings benchmarks <i>n=9/143 (6%)</i>		(Carey and Simnett 2006), (Francis and Yu 2009),	(Asthana and Boone 2012), (Cahan, Zhang et al. 2011), (Causholli, Chambers et al. 2014), (Wang and Zhou 2012),	(Garcia-Blandon, Argilés-Bosch et al. 2020), (Gaver and Utke 2019), (Reid, Carcello et al. 2019),
	Restatement / Negative Restatement <i>n=14/143 (10%)</i>			(Lawrence, Minutti-Meza et al. 2011), (Dao, Raghunandan et al. 2012),	(Garcia-Blandon, Argilés-Bosch et al. 2020), (Czerney, Jang et al. 2019), (Christensen, Omer et al. 2019), (Bills, Swanquist et al. 2016), (Bianchi 2018), (Pincus, Tian et al.

					2017), (Beardsley, Lassila et al. 2019), (Kallunki, Kallunki et al. 2019), (Lennox 2016), (Gunn and Michas 2018), (He, Pittman et al. 2017), (Lee, Nagy et al. 2019), (Gaver and Utke 2019), (Lisic, Myers et al. 2019),
	Book-Tax Differences <i>n=2/143 (1%)</i>				(Jiang, Wang et al. 2019),
	Financial Statement Divergence Score <i>n=1/143 (1%)</i>				
	Accounting Conservatism <i>n=1/143 (1%)</i>			(Campa 2013),	
	Cost of Capital, interest rate spread <i>n=1/143 (1%)</i>			(Lawrence, Minutti-Meza et al. 2011),	
	Disclosure and remediation of material weaknesses in internal control <i>n=2/143 (1%)</i>				(Dao, Xu et al. 2019), (Anantharaman and Wans 2019),
	Meeting zero Profit Benchmark <i>n=1/143 (1%)</i>				(Goodwin and Wu 2016),
	Below the line earnings, other income <i>n=1/143 (1%)</i>			(Gul, Wu et al. 2013),	
	SEC Comment Letter/ SEC Enforcement <i>n=2/143 (1%)</i>			(Kumar and Lim 2015),	(Czerney, Jang et al. 2019)
	Late Filing <i>n=1/143 (1%)</i>				(Czerney, Jang et al. 2019)
	Disciplinary Sanctions <i>n=1/143 (1%)</i>			(Sundgren and Svanström 2013),	
	Recognition and impairment of Goodwill <i>n=1/143 (1%)</i>				(Lobo, Paugam et al. 2017),
Market Based Measures <i>n=8/143 (6%)</i>	Earnings Response Coefficients <i>n=7/143 (5%)</i>	(Ghosh and Moon 2005),	(Chi, Huang et al. 2009)	(Lennox, Wu et al. 2014), (Kumar and Lim 2015),	(Gaver and Utke 2019), (Lisic, Myers et al. 2019), (Reid, Carcello et al. 2019),
	Value Relevance of Earnings <i>n=1/143 (1%)</i>			(Campa 2013),	

Table-9: Number of Measures of AQ used per Article

No. of Proxies	2001 – 2005	2006 – 2010	2011 – 2015	2016 – 2020
(1 Proxy) <i>n=45/84 (54%)</i>	(Johnson, Khurana et al. 2002), (Nagy 2005), (Ghosh and Moon 2005), (Vinten, Chen et al. 2005), (Vinten, Leventis et al. 2005),	(Srinidhi and Gul 2007), (Chen, Lin et al. 2008), (Dhaliwal, Naiker et al. 2010), (Maijor and Vanstraelen 2006), (Venkataraman, Weber et al. 2008), (Chen, Sun et al. 2010), (Jackson, Moldrich et al. 2008), (Hussainey 2009),	(Deumes, Schelleman et al. 2012), (López and Peters 2012), (Eshleman and Guo 2014), (Litt, Sharma et al. 2014), (Chen, Chen et al. 2011), (Burnett, Cripe et al. 2012), (Lamoureux, Michas et al. 2015), (Aobdia, Lin et al. 2015), (Al-Thuneibat, Al Issa et al. 2011), (Sun and Liu 2011),	(Singh, Singh et al. 2019), (Park 2019), (Lambert, Jones et al. 2017), (Christensen, Omer et al. 2019), (Lobo, Paugam et al. 2017), (Choi, Choi et al. 2018), (Beardsley, Lassila et al. 2019), (Bratten, Causholli et al. 2019), (Ernstberger, Koch et al. 2020), (Kallunki, Kallunki et al. 2019), (Garcia-Blandon and Argiles-Bosch 2017), (Holm and Thinggaard 2018), (Deng, Xie et al. 2020), (Alhadab and Clacher 2018), (Ghafran and O'Sullivan 2017), (Krishnan, Krishnan et al. 2017), (Gunn and Michas 2018), (Anantharaman and Wans 2019), (Florou, Morricone et al. 2020), (Gaaya, Lakhal et al. 2017), (Muttakin, Khan et al. 2017), (Khelif and Samaha 2016)
(2 Proxies) <i>n=22/84 (26%)</i>		(Allen and Woodland 2010), (Choi, Kim et al. 2010), (Choi, Kim et al. 2010), (Chi, Huang et al. 2009), (Behn, Choi et al. 2008),	(Asthana and Boone 2012), (Choi, Kim et al. 2012), (Cahan, Zhang et al. 2011), (Causholli, Chambers et al. 2014), (Sundgren and Svanström 2013), (Wang and Zhou 2012), (Dao, Raghunandan et al. 2012), (Hoitash, Markelevich et al. 2007),	(Albersmann and Quick 2020), (Dao, Xu et al. 2019), (Bills, Swanquist et al. 2016), (Choi, Kim et al. 2017), (Lisic, Myers et al. 2019), (Lennox 2016), (Schroeder 2016), (He, Pittman et al. 2017), (Jiang, Wang et al. 2019),
(3 Proxies) N=13 <i>n=13/84 (15%)</i>		(Carey and Simnett 2006), (Francis and Yu 2009),	(Chi, Lisic et al. 2011), (Gul, Wu et al. 2013), (Lawrence, Minutti-Meza et al. 2011), (Lennox, Wu et al. 2014), (Campa 2013),	(Garcia-Blandon, Argilés-Bosch et al. 2020), (Goodwin and Wu 2016), (Bianchi 2018), (Pineus, Tian et al. 2017), (Reid, Carcello et al. 2019), (Lee, Nagy et al. 2019),
(4 Proxies) <i>n=4/84 (5%)</i>			(Kumar and Lim 2015),	(Gaver and Utke 2019), (Czerney, Jang et al. 2019), (Yeung and Lento 2018),