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THE QUALITY OF EXTERNAL AUDITOR REPORTS ACCORDING TO ISA 700 AND THE IMPACT OF AUDIT COMMITTEE CHARACTERISTICS IN LIGHT OF DIGITAL TECHNOLOGIES: AN APPLIED STUDY ON LISTED IRAQI BANKS

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Abstract. This study aims to examine the effect of audit committee (AC) attributes on improving the quality of the audit report in the Iraqi listed banks during the timeframe (2008-2024). The study is based on agency theory and resource dependence theory and has five dimensions of governance: AC independence, financial expertise, meeting frequency, risk management committee presence and advanced digital technology adoption. A novel composite ISA 700 audit report quality index is developed through three dimensions related to the International Standard on Auditing 700 (Revised): audit opinion type (40%), reporting timeliness (30%), and report content quality (30%) to offer a theoretically grounded measurement instrument that is applicable to emerging markets where traditional audit quality proxies lack. The empirical analysis uses an unbalanced panel of 135 observations of bank-year data for 20 Iraqi banks and 17 years, and is estimated using Random Effects GLS standard errors with cluster-robust standard errors. Results show that AC independence ($\beta = 0.105$, $p < 0.001$), financial expertise ($\beta = 0.110$, $p < 0.001$), and meeting frequency ($\beta = 0.031$, $p < 0.001$) are each positive and significant predictors of audit report quality, alongside Big4 auditor affiliation ($\beta = 0.111$, $p < 0.001$). These factors account for 48.3% of the variation within banks. There is no evidence of institutional void dynamics, as risk committee presence and digital technology adoption does not achieve statistical significance, which means that it is merely symbolic, and not substantive, additions to formal governance mechanisms. The supplementary component-level analysis shows that while the quality of the report content is mainly driven by AC characteristics, the reporting timeliness is only affected by the Big4 affiliation, thus demonstrating that internal and external governance is complementary, and not substitutive. The study provides a

replicable ISA 700 quality index, extends agency theory predictions to an institutional void context, and brings a more fine-grained approach to understanding the production of audit quality through different channels of effects of internal governance and external governance.

Keywords: Audit committee; ISA 700; audit report quality; financial transparency; corporate governance; Iraqi banks; agency theory; emerging markets.

1. Introduction

1.1 Background and Motivation

Financial transparency is supported by the quality of external audit reports as a key element of financial transparency, as it is the first one which investors, regulators and other stakeholders will rely on to judge the reliability of financial disclosures [1]. Since the large-scale corporate governance scandals of the early 2000s (Enron, WorldCom) to the banking scandals of recent years, regulators around the world have been much more focused on the institutional factors that influence the quality of auditing. Audit committees are the main internal control mechanism that oversees external control over the audit, and this is where the focus is shifted towards audit committee as the primary internal mechanism overseeing external audit [2] [3].

The audit committee has a unique role in corporate governance. It is an independent subcommittee of the board of directors primarily responsible for the oversight of financial reporting, the independence of auditor and their role, risk management practices and the integrity of the financial disclosure process [4]. In the agency theory, the audit committee is a monitoring tool that helps to solve an information gap between the inside and outside parties of the company, thereby minimizing the agency cost that occurs from separating the ownership and control of the company [1] [5]. But the success of this audit monitoring role is not guaranteed by the mere presence of an audit committee, but rather is dependent on the qualities of the committee's members, its skill sets, and its engagement.

1.2 The Emerging Market Problem

Most empirical studies of audit committee effectiveness have been carried out in the institutional settings of developed economies, mainly the United States, the United Kingdom, and Australia, which offer a favorable institutional setting for the effectiveness of audit committees [6, 7]. Generalizability of the results of the described contexts to emerging market economies is far from obvious. States and families are often the dominant owners in emerging markets, legal protections for investors are less robust, regulatory enforcement is limited, and symbolic governance structures may not lead to real governance [8, 9].

Such differences in institutional environments have important implications for the relationships between audit committee characteristics and audit quality that are expected to exist. Audit committees can be systematically weakened in contexts with institutional voids, such as those in which formal governance mechanisms are complemented by a weaker external regulatory and legal framework [10]. But at the same time, exactly because external disciplinary mechanisms are less effective, the relative importance of internal governance may be greater as an alternative to external discipline, such as through the auditing committee. There is

little empirical evidence on which of these competing dynamics has prevailed, especially in banking sectors of post-conflict and transitional economies.

1.3 The Iraqi Banking Context

Iraq is an especially significant and under-researched market in a new and growing market environment. Since 2003, the Iraqi banking sector has experienced a drastic change in structure from a state-dominated and centrally planned banking sector to a degree of banking sector liberalization with the presence of both commercial and Islamic banks and investment banks, some of which are state-owned and some private[11]. The establishment and the gradual development of the Iraq Stock Exchange (ISX) has resulted in the establishment of a formal disclosure and reporting system, and the Central Bank of Iraq and Iraqi Securities Commission have issued the governance rules which are generally consistent with the international standards.

However, there are still hallmarks of an institutional void in the Iraqi banking sector. Ownership concentration is still high with the family controlled institutions and state affiliated institutions dominating the sector. Enforcement capacity is enhancing, but is not uniform. The regulations for audits have been introduced progressively, but their level of compliance is significantly different from institution to institution. In this context, the Iraq banking sector offers a natural laboratory to study whether and how the audit committee characteristics relate to the audit report quality when there is institutional constraint, because of their immediate implications for the banking sector in other developing countries and for those who are interested in governance reform.

1.4 Measurement Gap: The ISA 700 Index

This study also has a methodological dimension in that it tackles a limitation that has hindered audit quality research in emerging market settings. The conventional audit quality proxies (audit fees, auditor-client tenure, Big4 affiliation and accruals-based earnings quality measures) were designed mainly to be used in an environment with an active audit market, fees that are transparent for the audit client, and reliable financial information [12], [13]. For nascent banking markets like Iraq, audit fee information is often not available; for the same reasons, the quality of a firm's earnings may be related to the quality of the audit rather than the underlying incentive to provide audit; and affiliation with the Big4 is informative, but only on one aspect of a multi-dimensional construct.

The present study aims to overcome this limitation by developing a new ISA 700 Audit Report Quality Index based on the disclosure requirements of ISA 700 (Revised) [14]. The index is a weighted combination of three theoretically distinct dimensions: nature of the audit opinion (40%), timeliness of the audit report (30%) and the quality of the informational content of the audit report (30%). This process links the measurement instrument directly to the standard and international auditing requirements, thus providing a level of theory and inter-institutional comparability that is not available from traditional proxies. The multi-dimensional nature of the index also facilitates a decomposition of governance effects into various audit quality channels – a tool that is novel and utilized in the supplementary analysis of the component level, reported here in Section 5.

1.5 Research Objectives and Hypotheses

In this context, the current research aims can be summarized as follows: First, it investigates the positive relationship between any of the audit committee's

characteristics (independence, financial expertise and meeting frequency) and audit report quality in the Iraqi banking sector during 2008-2024. Second, it examines if the audit quality can be better explained by the presence of a risk management committee and the use of advanced digital technologies, in addition to the core AC characteristics. Third, it examines if the governance effects found at the composite index level apply to all three ISA 700 quality dimensions—audit opinion, timeliness and content quality—or if they are different across these three dimensions.

To achieve these goals, five formal hypotheses are developed and tested in the study. The study adopts agency theory [1, 5] and resource dependence theory [15] as the theoretical frameworks and the following hypotheses are set:

H1: Audit committee independence is positively associated with ISA 700 audit report quality.

H2: Audit committee financial expertise is positively associated with ISA 700 audit report quality.

H3: Audit committee meeting frequency is positively associated with ISA 700 audit report quality.

H4: The presence of a risk management committee is positively associated with ISA 700 audit report quality.

H5: The adoption of advanced digital technologies is positively associated with ISA 700 audit report quality.

1.6 Research Contributions

This study adds three points to the body of knowledge related to audit quality and corporate governance. First, it builds a new ISA 700 Audit Report Quality Index that offers a theoretically driven and repeatable measure of audit report quality in contexts like emerging markets where traditional proxies are not applicable [14]. Second, it provides longitudinal data for the banking sector in Iraq for the years 2008–2024, which is a missing element in the literature of corporate governance in emerging and transitional economies[15] [16]. Third, the paper adds to the literature by using a component analysis of the ISA 700 index results to gain deeper insights into the effect of governance mechanisms on various aspects of the quality of the audit report [17] and [18].

1.7 Paper Structure

The rest of the paper is organized as follows. The theoretical and empirical literature on the subject is reviewed in section 2 and the formal research hypotheses are developed. The research design is provided in Section 3, which consists of sample selection, measurement of variables, construction of ISA 700 index and the econometric model. Finally, the empirical findings, including descriptive statistics, correlation analysis, diagnostic tests, and the main empirical regression findings, as well as the analysis at the component level and robustness checks, are presented in section 4. The findings are explored within the framework of the theory and the institutions context in Section 5. The paper ends with a summary of the contributions, practical implications, limitations of the studies, and recommendations for future research which can be found in Section 6.

2. Literature Review and Hypothesis Development

2.1 Theoretical Framework

The study adopts two theory-driven approaches that are consistent and complementary each other, namely agency theory and resource dependence theory. Taken as a while, these frameworks provide the majority of the understanding about the impact of audit committee characteristics on quality of audit reporting.

Jensen and Meckling [1] and subsequently, Fama and Jensen [5] claim that agency theory suggests that because the managers and the shareholders are separated from one another, the manager and shareholder can create agency conflicts and information asymmetry which can potentially impact on reporting quality. These issues can be overcome by the establishment of audit committees for keeping a check on external audit and financial reporting, which in turn would help in increasing the credibility of disclosures made [3], [4]. Therefore, the quality of the audit report is expected to be improved by the effectiveness of audit committee, where the effectiveness is expected to be better based on audit committee independence, expertise, and engagement.

Pfeffer and Salancik [15] asserted that governance bodies carry the power to require and give organizations important resources including information, legitimacy and expertise. In this light, audit committees with more financial expertise, deeper engagement and backing from risk oversight bodies are likely to be more effective in performing their monitoring role. Likewise, the digital technologies of the future can bolster audit and reporting with enhanced transparency, uniformity, and process automation [19].

In general, agency theory suggests that audit committees are monitors, and resource dependence theory posits the audit committee's powers and resources. The two viewpoints highlight the positive impact more effective audit committees have on the quality of the audit, thereby affirming a link between the two.

2.2 Audit Committee Independence and Audit Report Quality

One of the most significant audit committee governance features addressed by the audit committee literature [3, 6] is audit committee independence, which can be defined as the percentage of non-management members on the audit committee. Self-determining committee members have better information about the company's management, can more effectively hold management accountable for the reporting, and bring greater credibility to the financial disclosures [1, 5].

This would seem to be correct based on empirical evidence. Independent audit committees decrease earnings management and financial reporting fraud, studies by Klein [3] and Beasley et al. [2] indicate. Likewise, Al-Shaer et al. [6] and Sultana [20] find positive relationships between the Audit Committee independence and the reporting quality in developed countries. The findings from emerging economies are also fairly consistent, with positive correlations of governance independence and transparency/reporting quality found by Kannan et al. [21], Claessens and Yurtoglu [8] and Al-Haddad et al. [22].

The dependent variable in this study is AC independence which is measured as dichotomous (one if the majority of audit committee members is independent, and zero otherwise). Based on this, it was hypothesized that:

H1: *Audit committee independence is positively associated with ISA 700 audit report quality.*

2.3 Audit Committee Financial Expertise and Audit Report Quality

Committee member accounting or financial expertise is a determinant key of good audit committee functioning or competence, and generally, shown in the expertise or credentials of members. From Agency Theory and Resource Dependence Theory, it can be inferred that those with financial knowledge better grasp the financial reporting practices, accounting judgments, monitor disclosures of risks, as well as how to effectively communicate with external auditors [4, 17].

This is well supported by previous research. As for the firms' financial knowledge, deZoort and Salterio [4] find that their knowledge contributes to better audit decisions, with Dhaliwal et al. [17] demonstrating that firms' accounting expertise enhances accruals quality. Other research from Krishnan and Lee [23] and Lisic et al. [24] confirms that audit committee expertise improves the effectiveness of internal control, audit quality and information in financial communications.

This is a critical factor in Iraqi banks as there are various complexities associated with financial reporting including loan loss provisions, off-balance-sheet exposure, compliance with IFRS, etc. The current sample has 71.1% (mean = 0.711, SD = 0.455) of observations that have at least one member in the audit committee that is CPA qualified. Based on the above, the following hypotheses are suggested:

H2: *Audit committee financial expertise is positively associated with ISA 700 audit report quality.*

2.4 Audit Committee Meeting Frequency and Audit Report Quality

Volatility of audit committee meeting is often equated with the engagement, breadth of committee activity and monitoring intensity. Regularly conducted meetings offer investigations of financial reporting problems, engagement with auditors, tracking compliance, as well as resolving new risks, in greater numbers [25, 26].There is general support for an overall positive correlation between meeting frequency and reporting quality in prior research. According to Abbott et al. [25], one negative correlation between audit committee frequency and financial restatement exists while another negative correlation between frequency and earnings management exists, according to Xie et al., [26]. More recently, Aldamen et al. [7] demonstrate that during uncertainty active audit committees lead to higher performance, especially when the firm is facing uncertainty.

This research defines meeting frequency as a log value (one plus the number of members' audit committee meetings for the year - AC_MF_log). The variable records a mean of 0.848 (SD = 1.143). To this end the following hypothesis is put forward:

H3: *Audit committee meeting frequency is positively associated with ISA 700 audit report quality.*

2.5 Risk Management Committee and Audit Report Quality

A dedicated risk management committee, dedicated to provide specialized oversight over enterprise risk is more and more important governance mechanism in financial institutions, after the Basel III focus on the board-level risk governance [27]. From a resource dependence point of view, these committees can help under-staffed audit committees, supplementing its risk oversight, and improving the quality of its risk disclosure [15].

But, empirical evidence is not consistent. Aebi et al. [28] show that banks with a specially established Risk Committee perform better while Nasr and Ntim [29]

conclude that such banks work better depending on the institutional context, and degree of overlap with Audit Committee (AC) from the perspective of research. The lack may be especially applicable to the case of Iraq and the creation of its governance system. In the current sample 31.9 percent of observations from the bank years (mean = 31.9, SD = 46.8) indicated that they had a risk management committee.

H4: *The presence of a risk management committee is positively associated with ISA 700 audit report quality.*

2.6 Digital Technology Adoption and Audit Report Quality

Research on governance and audit report quality is increasingly focused on the effects of digital technology adoption on the quality of the audit report. Artificial Intelligence, blockchain, machine learning, and advanced analytics can be used to augment the audit process, by improving data quality, automation and analysis [30, 31].

A resource dependence view is that digital investments can improve financial reporting systems and boost audit quality [19]. Dai and Vasarhelyi [30] conclude that Audit 4.0 technologies have the potential to enhance audit evidence collection and audit reliability, while Moll and Yigitbasioglu [31] stress that they can help to improve accounting information and disclosure processes.

The advantages of digital technologies, however, rely on the institutional and organisational context. Technology adoption in emerging economies can in certain instances not lead to better audits quality because of the lack of adequate regulatory support, implementation capacity and human resources [10, 19]. The average number of the advanced digital technologies adopted is 0.548 (SD = 0.677) which shows that Iraqi Banks are in an early stage of digital transformation in the present sample. Therefore, it is hypothesized that:

H5: *The adoption of advanced digital technologies is positively associated with ISA 700 audit report quality.*

2.7 External Auditor Size and Audit Quality: Control Variable

Perhaps the strongest relation in the auditing literature is between affiliate with one of the "Big4" external auditors and audit quality. DeAngelo [12] presents the theoretical basis that larger audit firms offer better audit quality, because they have more reputational capital to lose than smaller firms and are less economically reliant on any one client. There is significant empirical evidence to support this prediction in various audit quality metrics and settings [13, 32].

In the current study, Big4 affiliation is used as a control variable and not as a hypothesis-generating variable; this is due to the fact that it is used as an external governance mechanism, rather than a characteristic of an audit committee. Overall, there is a relatively low level of penetration by the Big4 firms in the Iraqi banking sector, with only 0.7% of bank-year observations in the sample having Big4 affiliation (mean = 0.007, SD = 0.086).

2.8 The ISA 700 Framework: Conceptual Grounding

The requirements of the formation and reporting audit opinions on financial statements are provided in International Standard on Auditing 700 (Revised) [14]. Key reporting elements - such as the auditor's report opinion, the auditor's report basis for opinion, going concern disclosures, key audit matters (where applicable),

and auditor responsibilities - are a part of the standard. Thus, the quality of audit reports can be evaluated as per ISA 700.

Audit reports have been shown in recent studies to have additional information content in addition to the audit opinion. Lennox and Schauer [18] demonstrate that audit report content affects investors' perceptions, and Czerney et al. [33] show that audit report disclosures are a source of extra information about financial reporting risks. The results confirm that the quality of a report on an audit is multidimensional.

This study proposes an ISA 700 Quality Index which consists of three dimensions: the quality of audit opinion, reporting timeliness, and quality of audit report content. This structure illustrates the key role of the audit opinion and the importance of the other attributes of the information, namely timeliness and disclosure quality. The average value of the index is 0.716 with a standard deviation of 0.134, which reflects generally good audit report quality of the Iraqi listed banks of the sample.

3. Research Methodology

3.1 Sample Selection and Data Collection

This empirical work uses an unbalanced panel data set of 135 bank-year observations for the 20 Iraqi banks that are traded on the Iraq Stock Exchange (ISX) during 2008–2024 for 17 successive years [34]. The composition of samples, distribution by year and bank-level coverage are detailed in Table 1.The study period starts in 2008 as this is the earliest year for which adequate and standardized information on governance and audit disclosures is available for Iraqi listed banks, a result of the gradual formalization of the ISX governance and audit disclosure requirements since the restructuring of the banking sector after 2003. The panel is unbalanced because: (i) the banks listed on ISX did not all enter the study sample at the same time and some left earlier than the study period had ended; (ii) annual reports for banks and years vary in the extent to which they provide disclosures; and (iii) data for some bank-year observations were not available for reliable coding. To minimize selection bias, the sample covered the entire population of listed banks in Iraq for which the necessary data could be obtained, but with the understanding that this is a bounded institutional population with its inherent restriction.

Data were collected from four primary sources:

1. **Corporate governance reports and board composition disclosures** The ISX was filled with the audit committee characteristics (independence, expertise, meeting frequency and the presence of a risk committee).
2. **Annual audit reports** attached to or submitted with banks' financial statements (ISA 700: Opinion Type, Report Date, Content Quality index components).
3. **Annual report technology disclosure sections, bank official websites, and ISX digital banking disclosures** on digital banking – for digital technology adoption variables, extracted through systematic manual content analysis.
4. **Audit report signatory information** in annual reports — for external auditor identity (Big4 affiliation).

Table 1: Sample Composition — Iraqi Listed Banks, 2008–2024

Panel A: Summary Statistics

Item	Value
Total Sample	20 Banks
Total Bank-Year Observations	135
Study Period	2008–2024
Minimum Observations per Bank	2
Maximum Observations per Bank	13
Mean Observations per Bank	6.8

Panel B: Distribution by Year

Year	Observations	Percentage (%)
2008	11	8.15
2009	7	5.19
2010	9	6.67
2011	8	5.93
2012	10	7.41
2013	9	6.67
2014	10	7.41
2015	8	5.93
2016	9	6.67
2017	6	4.44
2018	7	5.19
2019	10	7.41
2020	8	5.93
2021	7	5.19
2022	6	4.44
2023	6	4.44
2024	4	2.96
Total	**135**	**100.00**

Panel C: Distribution by Bank

Bank	Observations	First Year	Last Year	Coverage (Years)	% of Total
Ashur International Bank	9	2008	2021	14	6.67
Baghdad Investment Bank	5	2016	2024	9	3.70

(BAIB)					
Bank of Commerce & Investment (BCIH)	6	2015	2023	9	4.44
Bank of Commerce of Iraq (BCOI)	4	2013	2019	7	2.96
Bank of Economy & Finance (BEFI)	5	2008	2022	15	3.70
Elaf Islamic Bank (BELF)	5	2010	2022	13	3.70
Babylon Bank (BIIB)	2	2009	2023	15	1.48
Bank of Mosul (BMOI)	6	2008	2021	14	4.44
National Bank of Iraq (BNAI)	5	2014	2021	8	3.70
Baghdad Bank	8	2008	2017	10	5.93
Gulf Bank of Iraq (GBC)	6	2008	2023	16	4.44
Investment Bank of Iraq	9	2008	2023	16	6.67
Kurdistan Development Bank (KDB)	13	2008	2024	17	9.63
Mansour Bank	8	2008	2019	12	5.93
Middle East Investment Bank	8	2008	2021	14	5.93
National Bank	5	2008	2019	12	3.70
Sumer Commercial Bank (SBC)	11	2008	2023	16	8.15
Specialised Bank (SPEC)	5	2018	2023	6	3.70
United Bank for Commerce (UBC)	5	2012	2024	13	3.70
Union Bank of Iraq	10	2010	2024	15	7.41
TOTAL (20 Banks)	**135**	**2008**	**2024**	**17**	**100.00**

3.2 The ISA 700 Audit Report Quality Index

The central dependent variable is a new composite measure, the ISA 700 Audit Report Quality Index, which is designed to reflect the multi-faceted nature of audit report quality in a direct fashion to the requirements in International Standard on Auditing 700 (Revised) [14]. This index is the weighted average of three components with theoretically independent scales, all of which have been scaled to the range [0, 1]:

$$\begin{aligned}\text{ISA700 Index}_{it} &= 0.40 \times \text{OpinionScore}_{it} + 0.30 \times \text{TimelinessScore}_{it} \\ &+ 0.30 \times \text{QualityScore}_{it}\end{aligned}$$

Component 1: Opinion Score (Weight: 40%)

Based on the type of audit opinion, it is assigned a code on the four-point ordinal audit opinion scale, and normalized to the range [0, 1]. Table 2 shows the coding scheme and the normalisation of the information used to build the Audit Opinion Score.

Table 2: Coding and Normalization of Audit Opinion Types

Audit Opinion Type	Raw Code	Normalized Score
Unqualified (Clean) Opinion	4	1.000
Emphasis of Matter	3	0.750
Qualified Opinion	2	0.500
Adverse Opinion	1	0.250

This component receives the highest weight (40%) because the audit opinion is the primary communicative output of the audit process and the principal basis on which financial statement users assess the auditor's overall conclusion about financial statement fairness [14], [13]. In the present sample: 91 observations (67.4%) record an unqualified opinion; 36 (26.7%) an emphasis of matter; 7 (5.2%) an adverse opinion; and 1 (0.7%) a qualified opinion.

Component 2: Timeliness Score (Weight: 30%)

The ratio of audit report delay to 365 days, minus 1, and capped between 0 and 1:

$$\text{Timeliness Score}_{it} = 1 - \frac{\text{Days from Year End to Audit Report Date}}{365}$$

A higher score means that audits are finished more quickly, and therefore are reported sooner. One of the key dimensions of audit quality that have been recognized is timeliness, and late or untimely audits can decrease decision usefulness of financial disclosures and can indicate disagreements between the auditor and the client or problems in the evidence-gathering process [32, 33]. The sample mean timeliness score is 0.706 (SD = 0.163).

Component 3: Quality Score (Weight: 30%)

Extracts the information and the structural conformance of the audit report to the requirements of ISA 700 from the audit report text, applying coding based on a structured scoring rubric. The rubric evaluates and measures the elements that should be included and be sufficient in the report such as: basis for opinion section; going concern assessment; key audit matters; auditor responsibility descriptions; and report formatting standards. The mean value of this component

(0.492) is highest compared to other components, and the standard deviation (0.207) is also high, which means that there is a significant variation in the depth and informativeness of the disclosures in the audit reports of the banks listed in Iraq.

The sample mean of the composite ISA 700 is 0.716 (SD = 0.134) and the distribution is negatively skewed (skewness = −1.001), as would be expected in the context of audit reports for banks in a regulated banking environment, in which the variations are predominantly at the highest end of the distribution. All principal analyses are repeated with an equal weight index (each component with a weight of 1/3), as a robustness check, and reported in specification S8.

3.3 Variable Measurement

Table 3 gives a detailed description of all the variables used in the analysis and their measurement, theoretical background, expected signs, and data sources. There is significant variation across the sample in characteristics of the audit committee and governance. Twenty-eight percent (mean = 0.289, SD = 0.455) of the bank-year observations have an independent majority audit committee, and 71.1% of the observations have an audit committee member who is a certified public accountant (mean = 0.711, SD = 0.455). The presence of a dedicated risk management committee is observed in 31.9% of observations (mean = 0.319, SD = 0.468), which shows that having a dedicated risk oversight is not commonplace for Iraqi listed banks. As far as committee activity is concerned, the mean AC_MF_log has been 0.848 (SD = 1.143) which indicates that there is a significant difference between bank-years in terms of audit committee involvement. The use of DTI advanced technology is still in the early stages of digital transformation in the Iraqi banking sector with a mean score of 0.548 (SD = 0.677) for DTI_advanced_count. Lastly, the percentage of bank-year observations where the banks are affiliated with any of the Big 4 accountants is small, at 0.7% (mean = 0.007, SD = 0.086). This phenomenon is similar to the small number of international audit networks in the Iraqi banking sector.

Table 3: Variable Definitions

Variable	Role	Full Name	Measurement	Scale	Expected Sign	Theoretical Basis
ISA700_Index	Dependent	ISA 700 Audit Report Quality Index	0.40 × (AuditorOpinion/4) + 0.30 × (1 − ReportTimeliness/365) + 0.30 × ReportQuality	Composite [0,1]	—	ISA 700 (IAASB, 2015); Agency Theory [1]
AC_Independence	X1	Audit Committee Independence	Binary: 1 if majority of AC members are independent of management	Binary {0,1}	+	Agency Theory: independent monitoring reduces informat

						ion asymmetry [1], [3]
AC_Expertise	X2	AC Financial Expertise	Binary: 1 if ≥1 member holds CPA or equivalent professional qualification	Binary {0,1}	+	Agency Theory: financial expertise enhances monitoring effectiveness [4], [17]
AC_MF_log	X3	AC Meeting Frequency (log)	ln(1 + annual meetings). Missing values: within-bank temporal interpolation	Continuous ≥ 0	+	Agency Theory: meeting frequency proxies for AC diligence [25]
RiskCommittee	X4	Risk Management Committee	Binary: 1 if a separate risk management committee exists on the board	Binary {0,1}	+	Resource Dependence Theory: board committee diversity provides specialized monitoring resources [15]

DTI_advanced_count	Z1	Advanced Digital Technologies	Count of advanced technologies adopted (Artificial Intelligence (AI), Blockchain, Machine Learning (ML), and Advanced Analytics). Manually extracted via content analysis	Count [0,∞]	+	Resource Dependence Theory: digital resources as transparency enablers [19]
DTI_core_count	Z2	Core Digital Infrastructure	Count of core digital banking infrastructure technologies adopted. Manually extracted via content analysis	Count [0,∞]	Control	Resource Dependence Theory [19]
AuditorSize	Z3	External Auditor Size (Big4)	Binary: 1 if Big4-affiliated external auditor; 0 otherwise	Binary {0,1}	+	Agency Theory: Big4 auditors as reputational quality signal [12]

3.4 Empirical Model

Based on the empirical model developed in this study, the baseline model reads:

$$\mathrm{ISA700}_{it} = \alpha + \beta_1 \mathrm{AC\_Indep}_{it} + \beta_2 \mathrm{AC\_Exp}_{it} + \beta_3 \mathrm{AC\_MF}_{it} + \beta_4 \mathrm{RC}_{it} + \beta_5 \mathrm{DTI\_adv}_{it} + \beta_6 \mathrm{DTI\_core}_{it} + \beta_7 \mathrm{Big4}_{it} + \mu_i + \varepsilon_{it}$$

Whereas, $\mathrm{ISA700}_{it}$ stands for the ISA 700 Audit Report Quality Index for bank i in year t, α is the intercept, β_1, ..., β_7 are the coefficients of interest, μ_i is unobserved bank-level heterogeneity and ε_{it} is the idiosyncratic error term. The i subscript refers to the bank and the t subscript refers to the year.

Test	**Statistic**	**p-value**	**Decision**	**Status**
Hausman Specification Test	Not positive definite	—	Hausman statistic not positive definite; Random Effects retained	Random Effects Preferred
Breusch-Pagan Heteroskedasticity Test	χ^2 = 14.533	0.043	Heteroskedasticity present — Cluster-Robust SE applied	Addressed
Durbin-Watson Autocorrelation Test	DW = 1.708	—	Acceptable range (1.5–2.5) — no serious autocorrelation concern	Pass
Wooldridge Test for Serial Correlation	F = 5.457	0.022	Serial correlation detected — Cluster-Robust SE applied	Addressed
Pesaran CD Test for Cross-Sectional Dependence	CD = 0.919	0.358	No cross-sectional dependence (H0 not rejected)	Pass
F-statistic (Joint Significance)	F = 16.956	< 0.001	Model jointly significant at 1% level	Significant
N (Observations)	**135**			
Number of Banks	**20**			
Number of Years	**17**			
R^2 (within)	**0.483**			
Chosen Estimator	**Random Effects GLS**			
SE Clustering	**Bank level (cluster-robust)**			

3.5 Estimation Method and Diagnostic Tests

The Hausman specification test was used to compare the Fixed Effects (FE) model with the Random Effects (RE) model. The test yielded a non-positive definite covariance matrix, which is the typical result for governance panel data with explanatory variables that are binary, and for which the within-entity variation is minimal [35], [36]. Following the traditional econometric approach, the Random Effects GLS estimator was thus chosen [36, 16]. All regressions use bank-clustered standard errors and thus allow for robust statistical inferences even in the presence of within-bank correlation and heteroskedasticity [16]. The results of all the diagnostic tests are summarized in Table 4.

Table 4: Diagnostic Test Results

3.6 Multicollinearity Assessment

Variance Inflation Factors (VIF) and tolerance values for all predictors are presented in Table 5 for all predictors included in the main regression model. The

VIF values for all variables are far less than the threshold of 5.0 suggesting that the multicollinearity is not a concern.

Table 5: Variance Inflation Factors (VIF)

Variable	VIF	Tolerance	Assessment
AC_Independence	1.156	0.865	No multicollinearity
AC_Expertise	1.051	0.951	No multicollinearity
AC_MF_log	1.078	0.928	No multicollinearity
RiskCommittee	1.228	0.814	No multicollinearity
DTI_advanced_count	1.571	0.637	No multicollinearity
DTI_core_count	1.461	0.685	No multicollinearity
AuditorSize	1.072	0.932	No multicollinearity
Mean VIF	**1.231**		
Maximum VIF	**1.571**		

3.7 Robustness Strategy

The main findings are tested for reliability using eight different model specifications that are reported in Table 6:

Table 6: Summary of Robustness Tests and Alternative Model Specifications

ID	Specification	Purpose
S1	Full Model (Baseline)	Main specification — all AC characteristics and controls
S2	Excluding DTI_advanced_count	Tests sensitivity to advanced digital technology control
S3	Excluding RiskCommittee	Tests robustness of core AC characteristics
S4	Control Variables Only (Benchmark)	Verifies incremental contribution of AC characteristics
S5	AC Variables Only	Isolates direct AC effects without controls
S6	Pre-2020 Subsample (N = 104)	Tests temporal stability — excludes COVID-19 period
S7	Original Data (No Interpolation)	Verifies interpolation does not drive results
S8	Equal-Weight ISA700 (1/3 each)	Tests sensitivity to index weighting scheme

The results are robust across all specifications that include AC_Independence as a predictor: the coefficient is positive and remains statistically significant at the 1% level (β is between 0.099 and 0.111).

4. Empirical Results

4.1 Descriptive Statistics

Table 7 shows the descriptive statistics of all variables used in the study. The ISA 700 Audit Report Quality Index records a sample mean of 0.716 (SD = 0.134), with values ranging from 0.194 to 0.929. The distribution appears to be negatively skewed (skewness = −1.001) with many observations in the top end of the bank-year quality scale and a few observations in the lower end of the scale. The pattern is left-skewed as the median ISA700 score is greater than the mean (0.745). The distributional properties of the three components of the composite index and the composite index itself are displayed in figure 1.

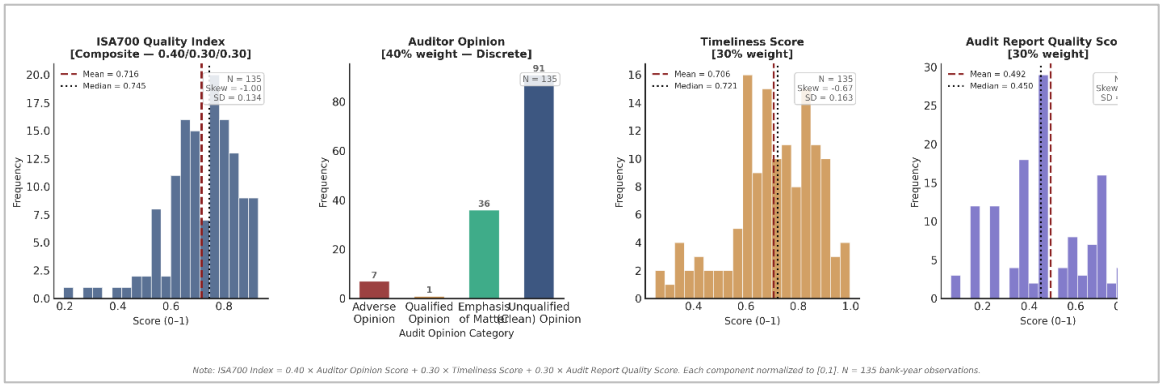

Figure 1: Distribution of ISA700 Audit Report Quality Index and Components — Iraqi Listed Banks, 2008–2024

A closer look at the three elements of ISA 700 shows there to be important differences in the sources of audit report quality variation. The Opinion score has the highest mean score (0.891, SD = 0.190) and is highly negatively skewed (−2.087), meaning that unqualified opinions (67.4%) are more common than adverse opinions or qualified opinions. The Timeliness Score has a moderate negative skew (−0.666), a relatively high mean score of 0.706 (SD = 0.163), and scores were generally acceptable, with a moderate amount of meaningfully different cross-bank scores. The distribution of the Quality Score is the broadest (mean = 0.492, SD = 0.207) and relatively symmetric (skewness = 0.108) suggesting there is significant variation in the information content and structural completeness in audit reports among the sample — this is the dominant source of variation in the composite index.

As to the characteristics of the audit committees, the mean value of AC Independence is 0.289, suggesting that there are independent majorities in a small proportion of the bank-year observations (28.9%). The level of AC independence has changed significantly over time and between different banks, as shown in Figure 2.

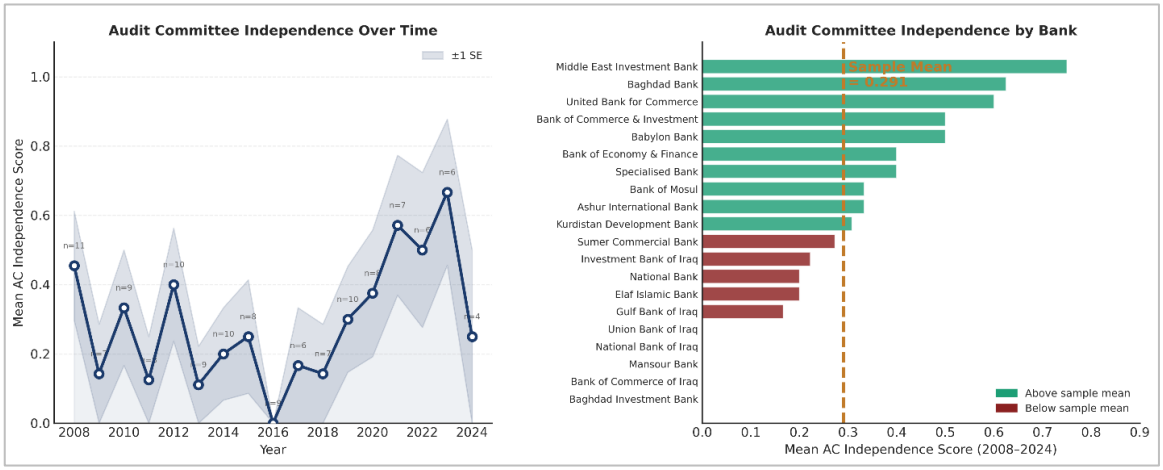

Figure 2: Audit Committee Independence — Temporal and Cross-Sectional Analysis — Iraqi Listed Banks, 2008–2024

The relatively low prevalence is related to the developing governance environment of the Iraqi banking sector where norms of independent board membership are still being built up. In contrast, the mean of AC Expertise is 0.711, indicating 71.1 per cent of observations have CPA-qualified audit committee members, which is a fairly robust level of financial expertise. Due to the variable engagement practices of banks in the sample, the mean for AC Meeting Frequency (log transformed) is 0.848 (SD = 1.143) and there is a significant number of bank-year observations with zero meetings (median = 0.000). The binary variable in the Risk Committee has a mean value of 0.319, meaning that it will be observed approximately one third of the time for bank-years. The variable digital technology has a mean of 0.548 (SD = 0.677) indicating that the sample is in the early stages of using advanced technologies, with most observations equaling 0 or 1. The advanced use of digital technology over the study period and across the banks is shown in figure 3.

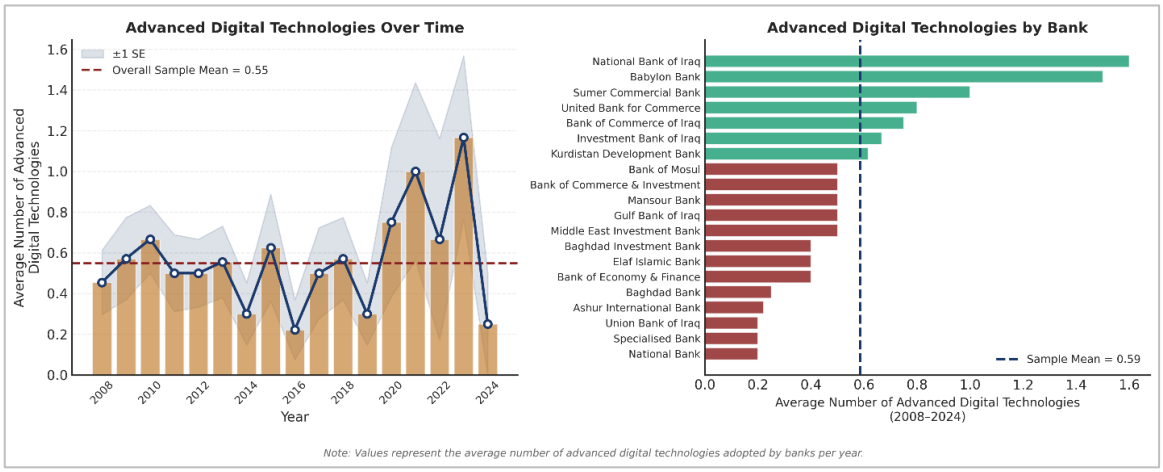

Figure 3: Trend of Advanced Digital Technologies Adoption — Iraqi Listed Banks, 2008–2024

DTI_core_count has a higher mean (1.193, SD = 0.768) reflecting the broader penetration of basic digital banking systems. The mean of AuditorSize is 0.007 with minimal penetration of the Iraqi banking audit market by Big4 audit firms.

Table 7: Descriptive Statistics (N = 135)

Variable	Mean	SD	Min	Q1	Median	Q3	Max	Skewness	Type
Panel A: Dependent Variable									
ISA700_Index	0.716	0.134	0.194	0.641	0.745	0.813	0.929	−1.001	Continuous [0,1]
Panel B: ISA700 Components									
Opinion Score	0.891	0.190	0.250	0.750	1.000	1.000	1.000	−2.087	Ordinal [0,1]
Timeliness Score	0.706	0.163	0.252	0.610	0.721	0.838	0.997	−0.666	Continuous [0,1]
Quality Score	0.492	0.207	0.062	0.388	0.450	0.667	0.900	0.108	Continuous [0,1]
Panel C: AC Characteristics (Main Predictors)									
AC_Independence	0.289	0.455	0.000	0.000	0	1.000	1.000	0.942	Binary (proportion)
AC_Expertise	0.711	0.455	0.000	0.000	1.000	1.000	1.000	−0.942	Binary (proportion)
AC_MF_log	0.848	1.143	0.000	0.000	0	2.079	3.258	0.703	Continuous ≥ 0
RiskCommittee	0.319	0.468	0.000	0.000	0	1.000	1.000	0.788	Binary (proportion)
Panel D: Control Variables									
DTI_advanced_count	0.548	0.677	0.000	0.000	0	1.000	3.000	1.433	Count [0,∞]
DTI_core_count	1.193	0.768	0.000	1.000	1.000	1.000	3.000	1.061	Count [0,∞]
AuditorSize	0.007	0.086	0.000	0.000	0	0.000	1.000	11.619	Binary (proportion)

Note: A binary variable (such as AC_Independence, AC_Expertise, RiskCommittee, AuditorSize) is reported as a proportion, with the mean being the proportion of bank-year observations that equal 1. AC_MF_log = log (1 + AC annual meetings). ISA700_Index = 0.40 × Opinion Score + 0.30 × Timeliness Score + 0.30 × Quality Score.

4.2 Correlation Analysis

Pearson correlation matrix and descriptive statistics for all variables in the study are given in Table 8. Results show that AC_Independence ($r = 0.499$, $p < 0.001$), AC_Expertise ($r = 0.464$, $p < 0.001$), and AC_MF_log ($r = 0.363$, $p < 0.001$) have the highest positive correlation with the ISA 700 Quality Index, supporting the

preliminary hypotheses H1–H3.RiskCommittee is positively associated with audit report quality, although the relationship is weak, but statistically significant (r = 0.198, p< 0.05); it provides limited initial support for H4. DTI_advanced_count, in contrast, is not significantly correlated with the ISA 700 Index (r = −0.032, p = 0.714) and DTI_core_count has a small negative correlation (r = −0.186, p < 0.05), indicating that the adoption of digital technology does not appear to be associated with an improvement in audit report quality in this context. There is still a moderate level of intercorrelation between the explanatory variables. The correlation between DTI_advanced_count and DTI_core_count is the highest (r = 0.513, p < 0.001) and that does not cause a concern of multicollinearity. The largest VIF value is 1.571 as reported in Table 5 which supports this conclusion.

Table 8: Pearson Correlation Matrix

	Mean	**SD**	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
(1)AC_Independence	0.289	0.455	1.000							
(2)AC_Expertise	0.711	0.455	0.190**	1.000						
(3)AC_MF_log	0.848	1.143	0.194**	0.018	1.000					
(4)RiskCommittee	0.319	0.468	0.231***	0.120	0.100	1.000				
(5)ISA700_Index	0.716	0.134	0.499***	0.464***	0.363***	0.198**	1.000			
(6)DTI_advanced_count	0.548	0.677	0.015	−0.015	0.056	0.269***	−0.032	1.000		
(7)DTI_core_count	1.193	0.768	−0.139	−0.075	−0.044	−0.047	−0.186**	0.513***	1.000	
(8) AuditorSize	0.007	0.086	−0.055	0.055	0.151*	0.126	0.119	−0.070	−0.022	1.000

*Note: *** p < 0.01, ** p < 0.05, * p < 0.10. Two-tailed significance tests. Pearson correlation coefficients. ISA700_Index is variable (5).*

The bivariate association between AC independence and the ISA 700 Quality Index is also shown graphically in Figure 4 to indicate the positive and statistically significant association noted in the correlation analysis.

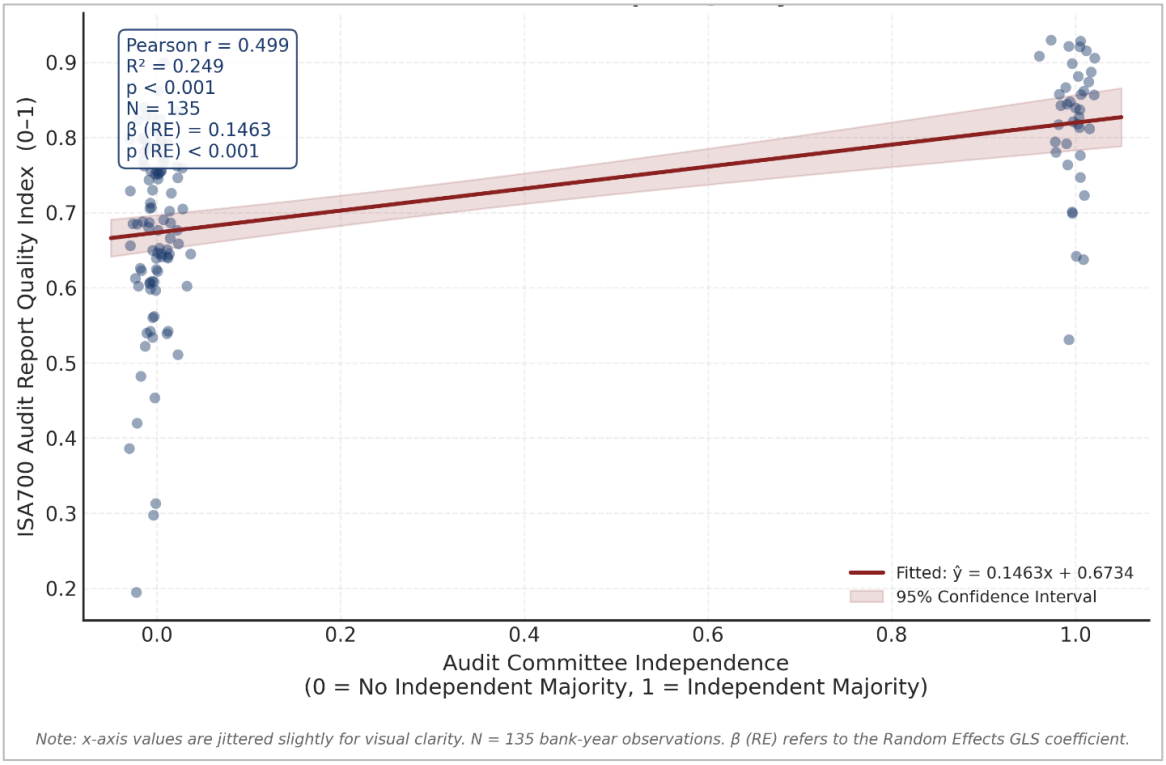

Figure 4: Association between Audit Committee Independence and ISA700 Audit Report Quality Index

4.3 Main Regression Results

Table 9a presents the results of the main Random Effects GLS regression of the ISA 700 Audit Report Quality Index on audit committee characteristics and control variables. The model's R^2 (within) of 0.4831 means that the predictors included in the model account for about 48.3% of the variation among the audit reports within banks, which is considered to be a significant percentage (for a governance panel study in an emerging market context). The joint F-statistic shows that the joint significance of the predictors is high and significant ($F = 16.956$, $p < 0.001$).

4.3.1 Audit Committee Independence — H1 Supported

Consistent with H1 and the predictions of agency theory, AC_Independence records a positive and highly significant coefficient ($\beta = 0.105$, SE = 0.016, $t = 6.584$, $p < 0.001$, 95% CI [0.074, 0.137]). The finding shows that the bank-year observations with majority-independent audit committees have an ISA 700 Quality Index score that is about 10.5 points higher, compared to those in which the majority of the audit committee are not independent, while controlling for other factors. This would correspond to a significant effect in economic terms with a 700 Index sample SD (standard deviation) of 0.134, which is an effect size of ~ 0.78 SD. H1 is supported.

4.3.2 Audit Committee Financial Expertise — H2 Supported

The presence of at least one member qualified by a CPA on the audit committee has a positive and statistically significant coefficient ($\beta = 0.110$, SE = 0.022, $t = 5.037$, $p < 0.001$, 95% CI [0.067, 0.153]), with this variable having the largest individual coefficient of the three audit committee characteristic variables, representing an ISA 700 quality improvement of approximately 11.0 percentage points. This is consistent with the theoretical view that more knowledgeable auditors offer increased technical strength in auditing, which helps those less well acquainted with financial matters to make more demanding judgments on the

complex accounting issues that derive from those judgments and to deal with their external auditors more effectively [4] (17). H2 is supported

4.3.3 Audit Committee Meeting Frequency — H3 Supported

AC_MF_log records a positive and significant coefficient (β = 0.031, SE = 0.008, t = 3.873, p < 0.001, 95% CI [0.016, 0.047]). The finding is economically significant, as it links one unit of log meeting frequency (roughly a doubling of meetings between one and two per year) with an improvement of the ISA 700 Quality Index of 3.1 percentage points. It is the finding that the frequency of the meetings of the audit committee (AC) is an independent positive contributor to the audit report quality beyond the structural characteristics of the composition of the audit committee [25, 26]. H3 is supported.

4.3.4 Risk Management Committee — H4 Not Supported

Contrary to H4, RiskCommittee records a small positive but statistically insignificant coefficient (β = 0.009, SE = 0.015, t = 0.570, p = 0.570, 95% CI [−0.021, 0.039]). There is insufficient evidence of added explanatory value of the existence of a dedicated risk management committee on the quality of the audit report for the Iraqi banking environment, as the magnitude of the coefficient of this variable is very close to zero and its confidence interval includes zero. H4 is not available. The meaning of this finding is explored in more detail in Section 5.7

4.3.5 Advanced Digital Technologies — H5 Not Supported

DTI_advanced_count records a near-zero and statistically insignificant coefficient (β = −0.001, SE = 0.014, t = −0.042, p = 0.967, 95% CI [−0.027, 0.026]). The coefficient is very close to zero indicating no evidence to support the hypothesis of a positive association between adoption of advanced digital technology and the quality of audit report in the ISA 700 in the Iraqi banking sector. H5 is not available. Also, no statistically significant coefficient (β = −0.016, SE = 0.016, t = −0.977, p = 0.330) was found for DTI_core_count, and Figure 5 shows that the distribution of ISA 700 quality scores is not meaningfully different by level of digital technology adoption. H5 is not supported.

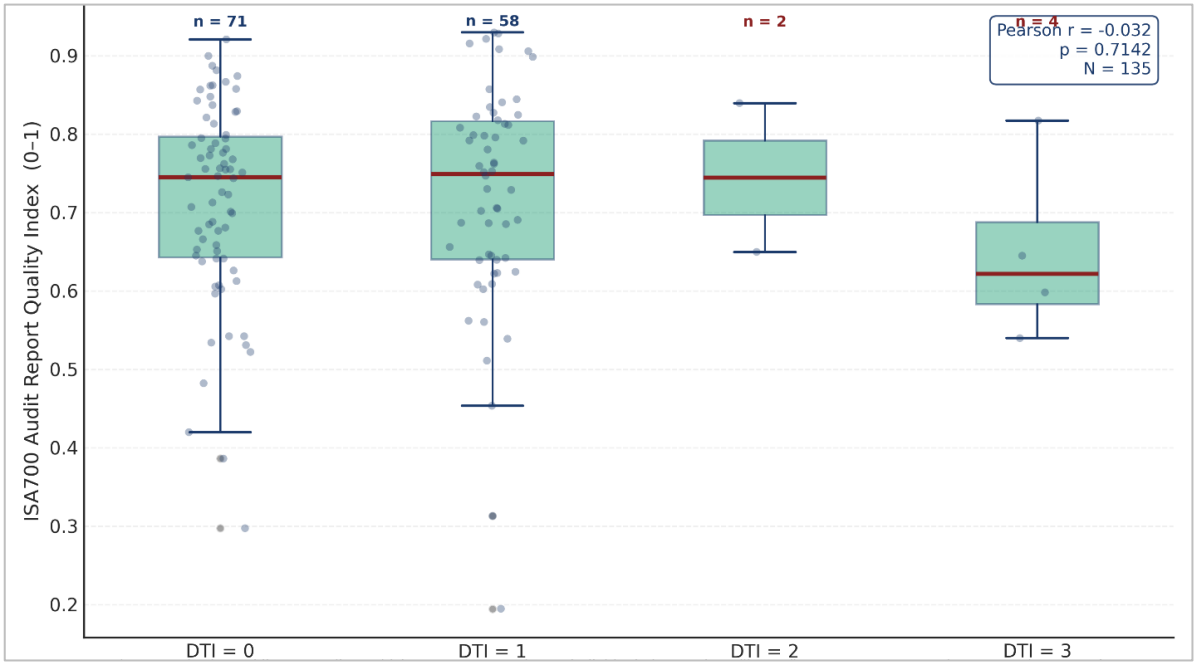

Figure 5: ISA700 Audit Report Quality Across Levels of Advanced Digital Technology Adoption

4.3.6 External Auditor Size (Big4) — Control Variable

The effect of AuditorSize is an increase in the quality of the audit engagement in terms of an increase in the ISA 700 quality of the audit engagement of roughly 11.2 percentage points, which is similar in size to the effect of the variable AC Independence and AC Expertise, and found to be statistically significant at the 1% level (β = 0.111, SE = 0.024, t = 4.660, p < 0.001, 95% CI [0.065, 0.158]). This finding, which draws on a small sample of Big4 auditors (N = 1, 0.7% of observations), corroborates the sizeable reputational quality premium, well documented in the literature, that accrues to large audit firms [12] and emphasizes the importance of auditor quality as its own governance mechanism separate from the audit committee.

Table 9a: Main Regression Results — Dependent Variable: ISA700 Audit Report Quality Index

Variable	Expected Sign	β (SE)	t	p-value	95% CI	Result
Intercept	—	0.596 *** (0.026)	22.817	< 0.001	[0.545, 0.647]	—
AC_Independence	+	0.105 *** (0.016)	6.584	< 0.001	[0.074, 0.137]	Supported
AC_Expertise	+	0.110 *** (0.022)	5.037	< 0.001	[0.067, 0.153]	Supported
AC_MF_log	+	0.031 *** (0.008)	3.873	< 0.001	[0.016, 0.047]	Supported
RiskCommittee	+	0.009 (0.015)	0.570	0.570	[−0.021, 0.039]	Not Supported
DTI_advanced_count	+	−0.001 (0.014)	−0.042	0.967	[−0.027, 0.026]	Not Supported
DTI_core_count	+	−0.016 (0.016)	−0.977	0.330	[−0.048, 0.016]	—
AuditorSize (Big4)	+	0.111 *** (0.024)	4.660	< 0.001	[0.065, 0.158]	—

*Note:. R^2 (within) = 0.4831. N = 135 bank-year observations made over 17 years in 20 banks. *** p < 0.01. 95% CI = β ± 1.96 × SE. ns = not significant (p ≥ 0.10).*

A forest plot of regression coefficients and 95% confidence intervals for all the predictors in the main model is displayed in Figure 6, which illustrates the pattern of significant and non-significant results.

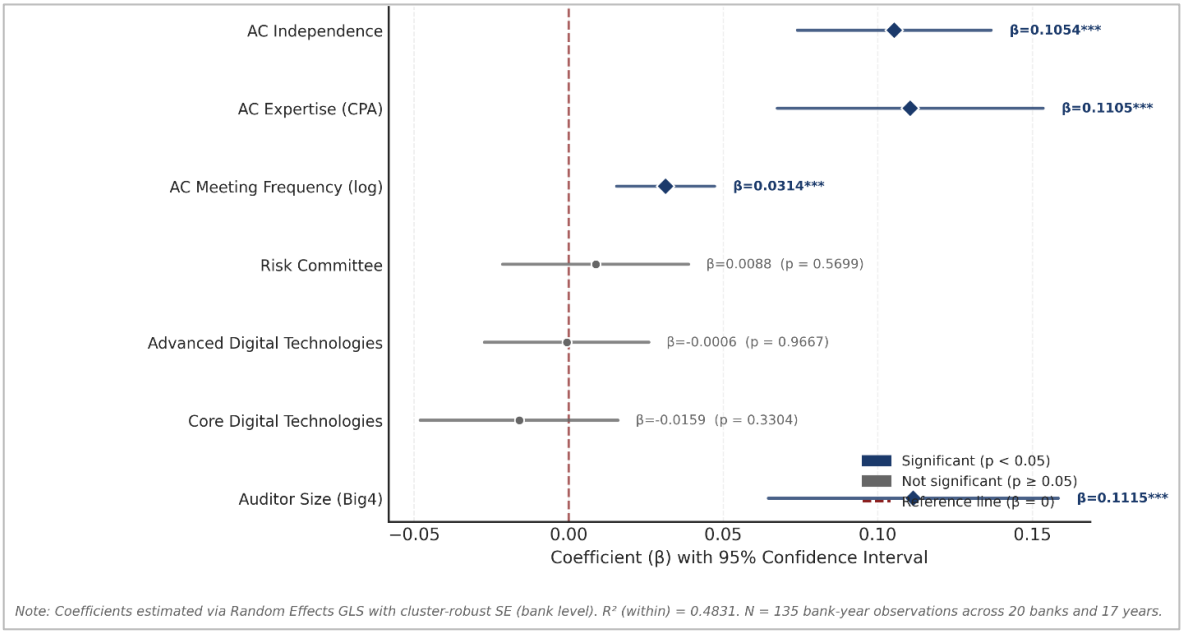

Figure 6: Main Regression Coefficients and 95% Confidence Intervals — Dependent Variable: ISA700 Audit Report Quality Index

4.4 ISA700 Component Analysis — Supplementary Results

To gain deeper insights into the channels by which governance mechanisms affect audit report quality, the component-level regression results are summarized in Table 9b and the estimates of the coefficients of each component of the ISAs in Table 9c are reported. This decomposition at the component level shows very different governance effectiveness on the three quality dimensions.

4.4.1 Quality Score Component (Weight: 30%) — Primary Driver

The regression for Quality Score has a very high R^2 (within) of 0.956, which means that this model was used to explain 95.6% of the variation in the audit report content quality within the bank. This remarkable explanatory power implies that the content quality of audit reports and the characteristics of the governance structure are closely systematically related in the banking context of Iraq and that the governance structure has a high degree of discretion over the depth and informativeness of audit report disclosures. In this component regression, the three core characteristics of audit committees are most strongly associated with report content quality: AC_Independence ($\beta = 0.260$, $p < 0.001$), AC_Expertise ($\beta = 0.224$, $p < 0.001$), and AC_MF_log ($\beta = 0.070$, $p < 0.001$). RiskCommittee also records a significant positive effect ($\beta = 0.013$, $p = 0.041$), as does AuditorSize ($\beta = 0.117$, $p < 0.001$). Overall, six predictors become significant in the Quality Score regression.

4.4.2 Opinion Score Component (Weight: 40%) — Moderate AC Effect

The Opinion Score regression has a lower R^2 value of 0.173, indicating higher randomness in the results of the audit opinion as compared to the structural factors included in the model. The higher the AC_Expertise score, the higher the opinion quality score is ($\beta = 0.095$, $p = 0.019$); the higher the AC_Independence score the higher the opinion quality score is, but the effect is smaller ($\beta = 0.054$, $p = 0.030$). RiskCommittee has a marginal significance ($\beta = 0.042$, $p = 0.095$). The opinions of the respondents are not significantly related to the frequency of the meetings, or any of the variables involving digital technology.

4.4.3 Timeliness Score Component (Weight: 30%) — Dominated by Big4

The lowest explanatory power (R^2 = 0.110) is obtained in the regression of the Timeliness Score, revealing an interesting result: none of the audit committee characteristics is statistically significant in determining the timeliness of the audit report. In contrast, the only significant coefficient (β = 0.142, p = 0.013) is related to the factor AuditorSize, where an increase of 14.2 percentage points in the timeliness score is statistically associated with Big4-affiliated engagements. The results indicate that the time for completion of audits is influenced more by the operational capacity and discipline of the external audit firm and not so much by the governance characteristics of the internal audit committee.

Table 9b: ISA700 Component Analysis — Summary

ISA700 Component	Weight	R^2 (within)	# Sig. Predictors	Strongest Predictor	Strongest β
Opinion Score	0.40	0.173	3	AC_Expertise	0.095**
Timeliness Score	0.30	0.110	1	AuditorSize	0.142**
Quality Score	0.30	0.956	6	AC_Independence	0.260***

*Note: Cluster-robust standard errors (Random Effects GLS). N = 135. *** p < 0.01, ** p < 0.05. The greatest absolute standardized coefficient from each component regression was used to determine the strongest predictor.*

Table 9c (Detailed): Regression Results by ISA700 Component

Component	Variable	β	SE	p-value	Sig.
Opinion Score (R^2 = 0.173)	AC_Independence	0.054	0.025	0.030	**
	AC_Expertise	0.095	0.040	0.019	**
	AC_MF_log	0.017	0.016	0.268	ns
	RiskCommittee	0.042	0.025	0.095	*
	DTI_advanced_count	−0.016	0.023	0.469	ns
	DTI_core_count	−0.040	0.028	0.147	ns
	AuditorSize	0.018	0.042	0.666	ns
Timeliness Score (R^2 = 0.110)	AC_Independence	0.009	0.033	0.778	ns
	AC_Expertise	0.015	0.030	0.626	ns
	AC_MF_log	0.015	0.012	0.192	ns
	RiskCommittee	−0.033	0.030	0.288	ns
	DTI_advanced_count	0.028	0.024	0.250	ns
	DTI_core_count	0.017	0.027	0.520	ns
	AuditorSize	**0.142**	**0.056**	**0.013**	**
Quality	**AC_Independence**	**0.260**	**0.007**	**< 0.001**	***

Score (R^2 = 0.956)					
	AC_Expertise	**0.224**	**0.010**	**< 0.001**	***
	AC_MF_log	**0.070**	**0.004**	**< 0.001**	***
	RiskCommittee	0.013	0.006	0.041	**
	DTI_advanced_count	−0.005	0.006	0.400	ns
	DTI_core_count	−0.011	0.007	0.099	*
	AuditorSize	0.117	0.011	< 0.001	***

*Note: GLS with cluster-robust SE at bank level: Random Effects For each component, N = 135. *** p < 0.01, ** p < 0.05, * p < 0.10, ns = not significant. Intercepts included but not reported.*

4.5 Robustness Checks

Table 10 presents the outcomes for eight alternative model specifications that were used to assess sensitivity of the key findings to alternative sample composition, variable operationalizations and estimation methods. This positive, statistically significant relationship between AC_Independence and the ISA 700 Quality Index is replicated in all specifications in which AC variables appear (S1–S3, S5–S8), with β values of 0.099 to 0.111 and p values consistently < 0.001. A few of the specific robustness results are worth commenting on. The coefficient of β = 0.107 (p < 0.001) for the Pre-2020 Subsample (S6, N = 104) verifies that the main finding cannot be attributed to the period of the COVID-19 and the structural changes in bank behaviour after 2020. The main coefficients obtained from the Original Data specification (S7, N = 135) are the same as those obtained in the baseline, thus showing that the within-bank interpolation procedure does not significantly affect the results. The results are not dependent on the 40/30/30 weighting scheme used in the main analysis as the findings for the Equal-Weight ISA700 specification (S8) do not differ from the findings in the main analysis.

The only significant amount of variation explained by digital technology adoption and external auditor size is captured by the full model, as the Control Variables Only benchmark (S4) has only an R^2 of 0.133.

Table 10: Robustness Checks — AC_Independence Coefficient Across Specifications

ID	Specification	β (AC_Independence)	SE	p-value	Sig.	R^2 (within)	N
S1	Full Model (Baseline)	**0.105**	0.016	< 0.001	***	0.483	135
S2	Excl. DTI_advanced_count	**0.105**	0.016	< 0.001	***	0.483	135
S3	Excl. RiskCommittee	**0.107**	0.016	< 0.001	***	0.482	135

S4	Control Variables Only (Benchmark)	—	—	—	ns	0.133	135
S5	AC Variables Only	**0.099**	0.016	< 0.001	***	0.533	135
S6	Pre-2020 Subsample	**0.107**	0.020	< 0.001	***	0.476	104
S7	Original Data (No Interpolation)	**0.105**	0.016	< 0.001	***	0.483	135
S8	Equal-Weight ISA700 (1/3 each)	**0.111**	0.016	< 0.001	***	0.525	135

*Note: All models estimated using Random Effects GLS with cluster robust standard errors at the bank level. This positive association of AC_Independence and ISA700 quality is statistically significant (p<0.001) for all specifications containing AC variables (S1-S3, S5-S8), sustaining the main result. Note that in S4 the R2 is lower (0.133) than S1 (0.483) which shows that digital technology and the auditor size variables give significantly less explanatory power. *** p < 0.01, ns = not significant.*

4.6 Summary of Hypothesis Tests

The results of the five hypothesis tests are summarized in Table 11. The predicted relationships and the empirical decisions derived from the baseline Random Effects GLS estimation are given in the table.

Table 11: Summary of five Hypothesis Testing Results

Hypothesis	Prediction	Decision
H1: AC Independence → ISA700 Quality	+	**Supported**
H2: AC Expertise → ISA700 Quality	+	**Supported**
H3: AC Meeting Frequency → ISA700 Quality	+	**Supported**
H4: Risk Committee → ISA700 Quality	+	**Not Supported**
H5: Advanced Digital Technologies → ISA700 Quality	+	**Not Supported**

Note: Results of a Random Effects GLS baseline model (S1). N = 135. R^2 (within) = 0.4831.

5. Discussion

5.1 Overview

The presence of a risk committee and the adoption of digital technology are not statistically significant and fail to achieve statistical significance in predicting the quality of the ISA 700 audit report, whereas three audit committee attributes — independence, financial expertise and meeting frequency — do so. The supplementary analysis of the component level also shows a differential impact of

the governance characteristics on the quality of the content and timeliness of the reports, with the characteristics of AC having a greater impact on the content quality while the affiliation to Big4 has a greater impact on the reporting timeliness. The results of this section are discussed in the context of the theoretical approach and the institutional structure of the Iraqi banking system.

5.2 Audit Committee Independence (H1 — Supported)

The positive and significant relationship between AC independence and ISA 700 quality ($\beta = 0.105$, $p < 0.001$) is in line with agency theory view that the agency problem is reduced by independent monitoring, thus enhancing the quality of financial reporting [1], [3], [5]. It is especially significant in the context of Iraq, where an independent majority is observed in just 28.9% of the bank-year observations, well below the basic level seen in developed markets. Independent oversight in the governance system is a scarce good in institutional void settings, where external disciplinary mechanisms are underdeveloped [10] and where oversight is a form of quality signal. Throughout all 8 alternative specifications ($\beta = 0.099 – 0.111$, $p < 0.001$ in all except for the pre-2020 subsample S6, when $\beta = 0.107$), the results are robust, showing a temporal stability that is not affected by the COVID-19 period. The analysis of components shows that the variable independence has the highest impact on the quality of the report content ($\beta = 0.260$, with $p < 0.001$) and has a lower but significant effect on the type of audit opinion ($\beta = 0.054$, with $p = 0.030$), but does not have a significant impact on timeliness, indicating that the independent members of the committee are mainly concerned with increasing the standards of information in the disclosures of the audit report, but not with the speed of the audit.

5.3 Audit Committee Financial Expertise (H2 — Supported)

The correlation coefficient for AC expertise is the highest of all three AC characteristics supported ($\beta = 0.110$, $p < 0.001$), which shows that having members of the committee who are CPA qualified is the strongest individual predictor of the quality of the audit report. It builds upon the evidence of DeZoort and Salterio [4] and Dhaliwal et al. [17] by adding an emerging market context; thus, in partially symbolic governance contexts, the technical monitoring benefits of financial expertise is also seen, meaning that a genuine financial expert results in measurable quality improvements.

The component analysis confirms expertise effects are highest for report content quality ($\beta = 0.224$, $p < 0.001$), and audit opinion type ($\beta = 0.095$, $p = 0.019$) but not report timeliness. Theoretically sound: Financial skills members can be helpful in assessing the completeness of disclosure items in the audit report, but they cannot necessarily affect the progress of the external audit.

5.4 Audit Committee Meeting Frequency (H3 — Supported)

The positive and significant coefficient of AC_MF_log ($\beta = 0.031$; $p < 0.001$) indicates that the effect of behavioral engagement remains after considering the effect of the structural committee composition, and is thus a direct effect on audit quality beside the structural committee composition. The 4.3 percentage point increase (or gain) in the ISA 700 Index comes from a simple organizational practice – moving from one to four annual meetings.The 4.3 percentage point gain (or improvement) in the ISA 700 Index is a tangible governance benefit from a simple organizational practice: one to four annual meetings. The findings are particularly noteworthy because the median AC_MF_log value in the sample is 0.000 (zero formal meetings), meaning that many Iraqi banks meet AC_FORM

requirements, but lack the operational engagement. Banks that go beyond this superficial compliance level obtain noticeably higher audit quality, in line with Abbott et al., [25] and Xie et al., [26]. Although opinion type and timeliness do not show a significant effect, those of meeting frequency are limited to report content quality ($\beta = 0.070$, $p < 0.001$).

5.5 Risk Management Committee (H4 — Not Supported)

The coefficient of RiskCommittee is close to the zero value and insignificant ($\beta = 0.009$ and $P = 0.570$) indicating that the presence of risk committee in the Iraqi banking context does not lead to better audit report quality. There are three institutional explanations for this null result: First, in the early stages of the governance, the committees for risks can be symbolic adoption of governance form without real operational substance [8] and [29]. Second, where audit and risk committee mandates are not clearly differentiated, there can be functional overlap between the two committees, which can reduce the effectiveness of the risk committee. Third, it is found that the component level analysis provides a partial qualification: RiskCommittee shows some significance at the regression of the Quality Score ($\beta = 0.013$, $p = 0.041$), which indicates that the effect on report content is small enough to not show up at the level of the composite index. Further studies are needed to investigate the circumstances in which good risk committee functioning leads to better audit quality in new banking markets.

5.6 Advanced Digital Technologies (H5 — Not Supported)

The finding that the coefficient for DTI_advanced_count was near zero ($\beta = -0.001$, $p = 0.967$) contradicts the positive outlook that digital transformation is naturally accompanied by better audit quality [30, 31] and can be explained along three complementary lines. Institutional voids theory [10] states that digital technologies introduce quality improvements only when they are integrated into supportive organizational and regulatory systems, such as well-trained personnel, audit procedures incorporating digital technologies and governance cultures with transparency as a core value, which is generally lacking in the Iraqi banking sector. Second, there can be a resource-practice gap [19] – technology acquisition does not necessarily lead to improvements in capability unless the organizational practices ensure that the technology is used effectively. Thirdly, the descriptive statistics show that the use of advanced digital technologies is still at an early stage in the sample (Mean = 0.548 and 52.6% have no technologies adopted in the sample), and that it may not yet be large enough to demonstrate a quality effect – an assumption worth testing as digital transformation becomes more widespread and reaches maturity in the sector.

5.7 The 2016 Decline in AC Independence

Figure 2 shows that the mean AC independence dropped dramatically to close to zero in 2016 (n = 9). However, this may be a result of two concurrent forces: that some higher-governance banks did not have complete data for that year, and that there may have been a period of temporary decline in governance practices in that year, due to the oil price collapse and fiscal pressures due to the fighting against ISIS. In emerging markets it is known that governance quality is procyclical and can suffer during crises [8]. The subsequent rebound since 2017 through highest sample values in 2022-2023 is in line with the gradual governance normalization that came about when the macroeconomic situation stabilized. This pattern is not a data artifact but rather, it represents real institutional processes and highlights

the importance of long-horizon panel data to capture the dynamics of governance in emerging market institutions.

5.8 Complementary Roles of Internal and External Governance

The analysis at a component level shows that audit committees and external auditors exert their influence on the quality of the audit in different, but complementary ways. Audit committee independence, expertise and audit committee meeting frequency are all important factors in determining the quality of the audit report (Quality Score $R^2 = 0.956$), while the only factor significant for audit report timeliness is the affiliation with Big 4 ($\beta = 0.142$, $p = 0.013$).

The findings indicate that both internal and external governance mechanisms have their distinct roles and are not mutually replaceable. Audit committees provide greater information depth and quality of audit disclosures, and external auditors have an impact on the efficiency and timeliness of the reporting process. Therefore, audit effectiveness in Iraqi banks and enhancement of audit quality in these banks should be improved through enhancement of the effectiveness of the audit committees and external audit capacity as both mechanisms alone are not able to achieve full audit quality improvement.

5.9 Theoretical Contributions

This study contributes to the literature on governance-audit quality in three ways. First, the important AC characteristics effects from an institutional void environment widen the scope of agency theory predictions from the developed market context in which they were formulated to an incomplete institutional setting, highlighting the core logic of independent monitoring as being strong enough to surface in an incomplete institutional setting. Second, the lack of findings relating to risk committees and digital technologies highlights the difference between substantive governance mechanisms (those involving real people and human behavior) and structural governance additions which could be inconsequential in new, early contexts, as the governance theories that equate formal structure with effectiveness are formulated.Second, the null findings regarding the role of risk committees and digital technologies help highlight the difference between a substantive governance mechanism (one involving real people and human behavior) and one which is a structural governance addition that may be symbolic in new, early environments as governance theories are developed that equate formal structure with effectiveness. Third, it presents a more fine-grained theory on the production of audit quality in the ISA 700, as it shows that the different governance mechanisms have different effects in terms of the information that is created and the efficiency of the audit procedures. This conceptually grounds future research in differential governance effects across audit quality dimensions.

6. Conclusion

The aim of this study was to investigate how audit committee characteristics affect audit report quality within 20 listed banks in Iraq for the period 2008-2024. The study was based on agency theory and resource dependence theory, and it tried to determine the impact of the key governance mechanisms on the quality of audit reports in an emerging market environment.

The results strongly suggest that the independence of the audit committee, its financial expertise and the frequency of audit committee meetings are positively related to the ISA 700 Audit Report Quality Index. These relationships hold true

for alternative specifications and are stable over the 17-year study period. Furthermore, the auditor affiliation with the Big4 firms has a large positive impact on audit quality, suggesting that the internal governance mechanisms as well as the external audit quality have a positive effect on the reporting result.

Rise of the risk committee and the presence of advanced digital technology, on the other hand, have no significant impact on audit report quality. The results of this research imply that a formal governance structure and investment in technology are not enough to deliver better audit results without the support of substantive expertise, involvement and organization. The results thus differentiate between substantive governance mechanism and symbolic governance arrangements.

One of the significant findings of the study comes from the component level analysis of the ISA 700 Quality Index. Audit committee characteristics are the most important factors that enhance the quality of content in audit reports, while only Big4 affiliation is significant in determining audit report timeliness. These findings suggest that internal governance mechanisms and external auditors take place in parallel instead of in competition.

The study methodology presents the multi-dimensional ISA 700 Audit Report Quality Index for emerging markets. Theoretically, the results add to the agency theory in a governance context with changing regulations and governance. From an empirical perspective, it offers some unique evidence from the Iraqi banking sector for the first time over the course of a few years, filling an important research gap in the field of audit and corporate governance literature.

The results are also applicable. However, because the percentage of observations with majority-independent audit committees is less than 30% for bank years, the independence standards should continue to be a focus for regulators. The benefits of financial knowledge and frequency of meetings continue to reinforce the standards for audit committee members with regard to qualification and engagement.

There are some caveats to note. Statistically generalizing in terms of the relatively small population of Iraqi listed banks, the content-quality component of the ISA 700 Index relies on a structured judgment, and observational design does not allow for definitive causal inference. Further study is needed to explore the context in which risk committees and digital technologies are effective governance instruments, as well as to expand the component-level framework into other emerging contexts.

Overall, the findings supported that the independence, expertise and active role of audit committees is one of the most important factors determining the quality of the audit report of Iraqi banks. The results emphasize the critical role of the substantive aspects of governance and show that robust financial reporting supervision can deliver significant financial reporting improvements in difficult institutional settings.

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