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The Effect of Auditors' Professional Competence on Audit Quality in Iraqi Audit Firms

1. Mohanad Nadhim Braiber. Aljasimee: PhD student, Department of Accounting, Faculty of Management and Economics, Tarbiat Modares University, Tehran, Iran
2. Sahar. Sepasi*: Associate Professor, Department of Accounting, Faculty of Management and Economics, Tarbiat Modares University, Tehran, Iran
3. Javad. Rezazadeh: Associate Professor, Department of Accounting, Faculty of Management and Economics, Tarbiat Modares University, Tehran, Iran
4. Behrooz. Khodarahmi: Assistant Professor,Accounting Department, Faculty of Management & Economics, Tarbiat Modares University, Tehran, Iran

*corresponding author's email: sepasi@modares.ac.ir

ABSTRACT

The present study aimed to examine the effect of auditors' professional competence on audit quality in Iraqi audit firms. Professional competence is considered one of the factors associated with an auditor's ability to detect material misstatements, evaluate audit evidence, identify audit risks, and exercise professional judgment. In terms of purpose, the study is applied, and in terms of method, it is descriptive-correlational with a quantitative approach. The statistical population consisted of professional auditors employed in Iraqi audit firms in 2024 and was estimated, based on the information provided, at 850 individuals. Ultimately, data from 218 usable questionnaires were analyzed. Data were collected using a five-point Likert-scale questionnaire in which both auditors' professional competence and audit quality were measured by nine items each. The data were analyzed using descriptive statistics, Pearson's correlation coefficient, confirmatory factor analysis, and structural equation modeling in AMOS. The mean score for auditors' professional competence was 3.87, while the mean score for audit quality was 3.90. The correlation between professional competence and audit quality was 0.71, and the standardized path coefficient from professional competence to audit quality in a model including three predictors was 0.38; both relationships were reported to be statistically significant. The findings are consistent with the role of specialized knowledge, experience, continuing professional education, and risk-identification capability in the performance of high-quality audits.

Keywords: auditor professional competence; audit quality; specialized knowledge; professional experience; Iraqi audit firms.

Introduction

Audit quality is a central concern in financial reporting, corporate governance, and the broader system of accountability because the credibility of audited financial information depends substantially on the auditor's ability to identify material misstatements, evaluate evidence appropriately, and reach defensible professional judgments. External users of financial statements—including investors, creditors, regulators, managers, and other stakeholders—typically do not have direct access to the underlying accounting records or the processes through which financial information is produced. They therefore rely on the audit function as an independent mechanism for



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increasing confidence in the reliability of financial reports. In this context, the quality of an audit is not determined solely by formal compliance with auditing procedures; it is also influenced by the professional characteristics of the individuals who perform the engagement. Among these characteristics, professional competence has received particular attention because it reflects the knowledge, skills, experience, judgment, and technical capabilities that enable auditors to perform complex audit tasks effectively (1, 2).

The concept of audit quality is multidimensional and can be approached from both process- and outcome-oriented perspectives. From a process perspective, a high-quality audit requires appropriate planning, risk assessment, evidence gathering, analytical procedures, documentation, supervision, and professional judgment. From an outcome perspective, audit quality is reflected in the extent to which the engagement contributes to the detection and reporting of material misstatements, strengthens the reliability of financial information, and increases stakeholder confidence in the audited financial statements. Because many components of audit quality involve professional judgment rather than mechanical compliance, the competence of the auditor becomes particularly important. An auditor may have access to auditing standards, checklists, technological tools, and quality-control procedures, but the effective application of these resources depends on whether the auditor possesses sufficient technical knowledge and the ability to interpret evidence within the specific circumstances of an engagement (3, 4).

Professional competence can be understood as the auditor's capacity to apply relevant knowledge and skills in a manner consistent with professional standards and the requirements of a particular audit engagement. It includes technical accounting and auditing knowledge, familiarity with applicable standards, analytical ability, understanding of internal control systems, capacity to identify and assess risk, use of audit technologies, and the ability to make sound judgments under conditions of uncertainty. Competence is therefore broader than formal education or possession of a professional certificate. Although professional credentials may indicate that an individual has achieved a specified level of theoretical knowledge, effective auditing also requires continuing learning, practical experience, engagement-specific understanding, and the capacity to apply knowledge appropriately in complex situations. Empirical studies have consistently treated competence as an important auditor-level factor that can contribute to variations in audit quality (5, 6).

The relevance of competence is particularly evident when auditors confront complex transactions, ambiguous evidence, unusual accounting treatments, or areas involving substantial estimation uncertainty. In such situations, mechanical application of audit procedures is insufficient. Auditors must determine which risks require greater attention, assess the credibility and sufficiency of available evidence, identify inconsistencies, and decide whether additional procedures are necessary. These activities require both general professional competence and task-specific knowledge. Research on task-specific expertise has shown that knowledge relevant to a particular audit domain can improve auditors' ability to perform specialized audit tasks and thereby enhance audit quality. For example, evidence concerning audits of income tax accounts indicates that task-specific knowledge can materially improve the quality of auditor judgments in technically demanding areas (7). This finding reinforces the view that competence should not be regarded as a static personal attribute but as a combination of general professional capability and knowledge that is relevant to the particular audit context.

Professional experience is also closely related to competence because repeated exposure to audit engagements can contribute to pattern recognition, problem-solving ability, and more efficient evaluation of evidence. Experienced auditors are more likely to have encountered diverse accounting issues, control deficiencies, reporting problems, and engagement risks. This exposure may improve their ability to recognize warning signs and distinguish routine

issues from matters requiring more extensive investigation. However, experience alone does not necessarily guarantee high-quality performance. The value of experience depends on the quality of the engagements undertaken, the extent to which auditors receive feedback, their willingness to update their knowledge, and their capacity to transfer previous learning to new situations. Studies examining experience together with competence have generally suggested that both variables are relevant to audit quality, although the magnitude of their effects may vary according to institutional and engagement conditions (8, 9).

The relationship between professional competence and audit quality also needs to be understood in connection with the changing technological environment of auditing. Contemporary audit engagements increasingly involve computerized accounting systems, digital documentation, automated controls, large datasets, and analytical software. Accordingly, auditors are expected not only to understand conventional accounting and auditing principles but also to use technological tools effectively and interpret electronically generated evidence. Competence in modern auditing therefore includes the ability to work with audit software, analyze data, understand information systems, and assess technology-related risks. The importance of information-system understanding becomes even more pronounced when audit complexity and time constraints increase. Evidence suggests that the effect of auditor competence on audit quality may interact with auditors' understanding of information systems, highlighting the importance of technological literacy as part of contemporary professional capability (10).

Risk assessment represents another important mechanism through which competence may affect audit quality. Auditing standards require auditors to identify and assess risks of material misstatement and to design procedures that respond appropriately to those risks. If auditors lack the knowledge required to identify significant risks, they may allocate audit effort inefficiently, overlook important weaknesses, or obtain evidence that is insufficiently responsive to the actual risks present in the engagement. Conversely, competent auditors are better positioned to recognize high-risk areas, evaluate the implications of internal control deficiencies, and select procedures that provide more persuasive evidence. Research examining risk-based auditing has emphasized that competence can contribute to internal audit quality partly through the application of risk-based approaches, indicating that risk identification and prioritization constitute important pathways linking auditors' capabilities to audit outcomes (11).

Another important dimension of professional competence is continuing professional development. Accounting standards, auditing standards, regulatory requirements, business models, information technologies, and financial instruments evolve over time. Knowledge that was sufficient at the beginning of an auditor's career may therefore become inadequate if it is not continually updated. Professional competence must be maintained through training, experience, technical consultation, independent learning, and exposure to emerging audit issues. Continuing education helps auditors remain familiar with changes in financial reporting requirements and develop the analytical capabilities required for increasingly complex engagements. Studies that examine professionalism and competence in relation to audit quality also indicate that work experience can shape or strengthen the way professional capability translates into audit performance (12). Consequently, audit firms need to treat competence development as an ongoing organizational process rather than merely a qualification obtained before entering the profession.

Despite the importance of competence, audit quality is rarely the product of a single auditor characteristic. Independence, integrity, professionalism, accountability, professional skepticism, and ethical conduct can also influence how technical knowledge is applied. A highly knowledgeable auditor who lacks independence or professional skepticism may fail to challenge management representations appropriately, while an independent auditor without sufficient technical competence may be unable to identify sophisticated misstatements. Accordingly,

competence should be viewed as one component within a broader set of professional attributes required for high-quality auditing. Studies examining multiple auditor characteristics have found that competence operates alongside factors such as independence, professionalism, accountability, and experience in explaining audit quality (1, 13). This multidimensional perspective is particularly important when interpreting the unique contribution of competence in multivariate statistical models.

The relationship between competence and audit quality may also depend on the organizational systems in which auditors perform their work. Audit firms typically rely on quality-control or quality-management mechanisms that establish policies for engagement acceptance, assignment of personnel, supervision, consultation, review, documentation, and monitoring. These institutional mechanisms can reinforce individual competence by ensuring that auditors are appropriately assigned, difficult issues are escalated, and engagement work is reviewed before the audit opinion is issued. Evidence from public accounting settings suggests that auditor competence and quality-control systems jointly contribute to improving audit quality (3). Similarly, research on quality assurance indicates that organizational mechanisms may strengthen or condition the relationship between competence and audit quality, implying that individual capability is most effective when supported by an institutional environment that promotes consistent professional performance (4).

Empirical evidence generally supports a positive relationship between auditor competence and audit quality, although findings are situated within different organizational and national contexts. Research involving auditors in public accounting firms has reported that higher levels of competence are associated with better audit quality, particularly where competence is considered together with independence and other professional attributes (2). Studies focusing on competence and independence have likewise indicated that professional capability is an important determinant of the quality of audit results (5, 6). Other studies incorporating work experience, integrity, professional skepticism, and audit fees have further demonstrated that competence remains relevant even when additional individual and engagement characteristics are considered (8, 9, 13).

Recent research has also moved beyond direct relationships and examined conditions under which competence may have a stronger or weaker association with audit quality. One such condition is audit tenure. The duration of the auditor-client relationship may influence how competence is translated into audit performance because longer engagement experience can improve the auditor's understanding of the client's business, internal controls, accounting systems, and risk profile. At the same time, excessively long tenure may raise concerns regarding familiarity and independence. Research examining audit tenure as a moderating factor in the relationships among work experience, competence, and audit quality demonstrates the growing recognition that competence may interact with engagement characteristics rather than operate in isolation (14). Such findings underline the importance of examining professional competence within the institutional and operational context in which auditing takes place.

Audit complexity can also affect the practical value of competence. Complex engagements may involve multiple business units, sophisticated transactions, difficult valuation issues, uncertain estimates, extensive information systems, or compressed reporting deadlines. Under these conditions, auditors face greater cognitive demands and may need to process more information within limited periods. Competent auditors are expected to manage these demands more effectively because they possess stronger knowledge structures and analytical skills. Nevertheless, severe time-budget pressure may impair professional judgment even among experienced auditors. Research examining competence together with audit complexity and time-budget pressure suggests that the benefits of

competence need to be considered alongside situational constraints that influence how auditors process information and perform audit procedures (10). Thus, competence is necessary for high-quality auditing but may not be sufficient when organizational or engagement conditions undermine its effective application.

Another consideration concerns the measurement of audit quality. Many empirical studies rely on auditors' perceptions because direct observation of audit processes and engagement files can be difficult due to confidentiality restrictions. Perceptual measures are useful for examining professional environments and can capture dimensions such as compliance with standards, accuracy of audit reports, transparency, and stakeholder confidence. However, self-reported assessments may also be affected by social desirability, common method variance, and overlap between measures of auditor characteristics and perceived audit quality. When the same respondents evaluate both their professional competence and audit quality, positive associations may partly reflect shared perceptions. This issue does not invalidate survey-based findings, but it makes careful construct definition and measurement-model assessment particularly important. Studies using questionnaire-based approaches have nevertheless provided substantial evidence regarding the association between competence and perceived audit quality across different professional settings (2, 12).

The cumulative evidence therefore supports a conceptual expectation that professional competence contributes positively to audit quality through several mechanisms. Specialized knowledge assists auditors in understanding accounting treatments and applicable standards; analytical skills facilitate the evaluation of financial information; experience improves recognition of unusual patterns and risks; technological competence supports the examination of computerized data; continuing education helps maintain current knowledge; and professional judgment enables auditors to integrate evidence when confronting complex or uncertain issues. These mechanisms are mutually reinforcing and collectively shape the auditor's capacity to perform an engagement in accordance with professional requirements. Research emphasizing competence, experience, independence, integrity, and quality assurance broadly supports the proposition that professional capability constitutes an important foundation for reliable audit performance (1, 4, 9).

At the same time, much of the empirical literature supplied on this relationship has been conducted in contexts outside Iraq, particularly within public accounting and auditing environments in Indonesia and comparable institutional settings. Differences in professional regulation, audit-firm structures, educational systems, market development, technological resources, enforcement mechanisms, and client characteristics can affect both auditors' professional capabilities and the conditions under which these capabilities contribute to audit quality. Consequently, findings obtained in one national setting cannot automatically be generalized to another without empirical examination. The Iraqi auditing environment warrants specific attention because audit firms operate within a distinct institutional, regulatory, and economic context, and the professional development opportunities, technological infrastructure, and engagement conditions experienced by auditors may differ from those documented in prior research.

Examining professional competence in Iraqi audit firms is also practically relevant for audit-firm management and professional development. If competence is positively associated with audit quality, firms may improve audit outcomes by strengthening recruitment standards, professional certification, continuing education, technological training, engagement-specific learning, supervision, and knowledge-sharing systems. In particular, competencies related to risk identification, financial statement analysis, data analysis, and the use of contemporary audit technologies may become increasingly important as organizations adopt more complex information systems and

financial reporting processes. However, managerial recommendations should be based on empirical evidence from the relevant professional environment rather than solely on assumptions derived from studies conducted elsewhere. The existing literature provides a strong theoretical and empirical basis for expecting a positive relationship between competence and audit quality, but it also demonstrates that this relationship may coexist with or depend on factors such as work experience, independence, professional skepticism, quality-control systems, risk-based auditing, information-system understanding, and audit tenure (7, 11, 14).

Accordingly, further evidence from Iraqi audit firms can extend the literature by assessing whether professional competence remains meaningfully associated with audit quality within this specific institutional setting. Such an examination is important because professional competence represents a potentially developable organizational resource: unlike some structural characteristics of the audit market, auditors' knowledge and skills can be strengthened through education, professional certification, practical experience, structured feedback, technological investment, and continuing professional development. Establishing the empirical relationship between competence and audit quality can therefore provide both theoretical insight into auditor-level determinants of quality and practical guidance for audit firms seeking to strengthen professional performance.

Therefore, the aim of the present study is to examine the effect of auditors' professional competence on audit quality in Iraqi audit firms.

Methods and Materials

The present study is applied in terms of purpose and descriptive-correlational in terms of research method, and structural equation modeling is used to examine the relationships among the constructs. The data were collected using a questionnaire based on a five-point Likert scale, with response options ranging from "strongly disagree" to "strongly agree." The unit of analysis is the professional auditor employed in Iraqi audit firms, and the analyses are based on individual-level responses. According to the information provided, the statistical population consisted of professional auditors working in Iraqi audit firms in 2024, whose number was estimated at 850. The stated inclusion criteria included holding a professional qualification such as CPA or ACCA, or being in the process of obtaining a professional qualification, as well as having at least two years of auditing experience. The initial sample size, calculated using Cochran's formula at a 95% confidence level, a 5% margin of error, and an estimated proportion of 0.5, was reported as 265 individuals. The final analyzed dataset consisted of 218 usable questionnaires. However, the information provided regarding the number of questionnaires distributed is inconsistent: one section states that 300 questionnaires were distributed, whereas another reports 250 questionnaires. A response rate of 87.2% is obtained only by dividing 218 by 250. Therefore, the number of distributed questionnaires should be reconciled with the study implementation records. Until this inconsistency is resolved, the response rate cannot be reported unconditionally as a definitive statistic.

The research instrument measures four constructs—auditor competence, auditor integrity, auditor ethics, and audit quality—using 36 items, with nine items assigned to each construct. The present article focuses on professional competence and the dependent variable, audit quality; however, the other two constructs are also included in the overall model for the purpose of reporting the structural model results. The professional competence items cover specialized knowledge, financial statement analysis skills, experience, use of audit technologies, professional training, data analysis, decision-making in complex matters, risk identification, and knowledge updating. The audit quality items assess respondents' perceptions of the overall desirability of audit quality, the

accuracy and correctness of audit reports, compliance with professional standards, stakeholder trust, auditors' skills, reduction of errors, transparency, responsiveness to client expectations, and improvement of financial processes. Data analysis was conducted in several stages. First, frequencies and percentages for demographic characteristics, along with descriptive indices for the constructs and items, were examined. Second, the normality of the construct distributions was assessed using the Kolmogorov-Smirnov and Shapiro-Wilk tests. Third, Pearson's correlation coefficient was used to examine the bivariate relationship between professional competence and audit quality. Fourth, confirmatory factor analysis was conducted using AMOS version 24 to evaluate the measurement model, and model-fit indices, factor loadings, Cronbach's alpha, composite reliability, and average variance extracted were examined. Fifth, a structural model including competence, integrity, and professional ethics as predictors of audit quality was estimated. Standardized path coefficients, standard errors, critical ratios, significance levels, and the coefficient of determination were used to interpret the results. Methodologically, the estimated results should be interpreted within the context of a survey design and a self-report instrument. Moreover, although model fit and reliability statistics were reported in the information provided, the raw software output, respondent-level data, and a complete description of the sampling procedure were unavailable. Accordingly, the figures presented below are reproduced as results reported in the study information rather than results independently replicated from raw data. Furthermore, because three predictors were entered simultaneously into the structural model, the path coefficient for competence reflects its statistical effect while accounting for the other two predictors; therefore, it should not be treated as equivalent to the simple correlation between competence and audit quality.

Findings and Results

Table 1 presents the distribution of respondents based on the demographic information provided. The total frequency for each variable is 218.

Table 1. Demographic Characteristics of the Respondents

Variable	Category	Frequency	Percentage
Gender	Male	142	65.1
	Female	76	34.9
Education	Bachelor's degree	98	45.0
	Master's degree	87	39.9
	Doctorate	21	9.6
	Other	12	5.5
Professional qualification	CPA	89	40.8
	ACCA	67	30.7
	Other	62	28.4
Work experience	Less than 5 years	43	19.7
	5–10 years	78	35.8
	10–15 years	62	28.4
	More than 15 years	35	16.1
Type of experience	Internal auditing	85	39.0
	External auditing	79	36.2
	Both	54	24.8
City of practice	Baghdad	72	33.0
	Basra	48	22.0
	Mosul	35	16.1
	Erbil	28	12.8
	Other cities	35	16.1

According to Table 1, men constituted 65.1% of the sample and women 34.9%. In terms of educational attainment, 45.0% of respondents held bachelor's degrees and 39.9% held master's degrees; thus, 84.9% of the sample fell within these two categories. Regarding professional qualifications, 40.8% were reported as holding CPA credentials and 30.7% ACCA credentials. Overall, 71.6% of respondents belonged to one of these two professional qualification groups. This distribution indicates that a substantial proportion of the sample is familiar with formal systems of professional certification; however, this information alone does not establish that all individuals possess the same level of applied knowledge or auditing skill. Regarding work experience, the largest group consisted of auditors with 5 to 10 years of experience, representing 35.8% of the sample. In addition, 44.5% of respondents had more than 10 years of experience. This composition indicates the presence of individuals with moderate to extensive professional experience in the sample; nevertheless, years of experience represent only one potential indicator of competence, while the quality of experience, types of engagements, and degree of exposure to complex issues were not measured independently in the available data. An important inconsistency should be noted when interpreting this table. In the methodological description, the statistical population is defined as auditors working in external auditing; however, the demographic table indicates that 39.0% of respondents reported internal audit experience, 36.2% external audit experience, and 24.8% experience in both areas. This discrepancy does not necessarily indicate a data error, but the definition of the statistical population and the sample inclusion criteria should be clarified. If the population was truly restricted to external auditors, the presence of individuals with exclusively internal audit experience requires explanation; otherwise, the description of the population should be revised to encompass professional auditors with internal and external audit experience.

Table 2. Descriptive Statistics of the Study Constructs

Construct	Number of Items	Mean	Standard Deviation	Minimum	Maximum	Skewness	Kurtosis
Auditor professional competence	9	3.87	0.62	2.11	5.00	-0.42	0.38
Auditor integrity	9	3.92	0.58	2.33	5.00	-0.38	0.31
Auditor professional ethics	9	3.85	0.65	2.00	5.00	-0.45	0.42
Audit quality	9	3.90	0.60	2.22	5.00	-0.40	0.35

The mean score for auditors' professional competence was 3.87, with a standard deviation of 0.62. Because the theoretical midpoint of the five-point scale is 3, the observed mean indicates that respondents, on average, provided a relatively positive assessment of their own professional competence or that of the auditors being evaluated. However, this value does not represent an objective level of competence because the instrument relies on respondents' perceptions and does not include a performance-based assessment of knowledge or skills. Consequently, a more precise interpretation is that the "self-reported assessment of professional competence was above the midpoint of the scale." The mean score for audit quality was also reported as 3.90, with a standard deviation of 0.60. The similarity between this mean and that of professional competence is consistent with the positive correlation between the two constructs; however, comparing the two means alone does not establish the existence of a relationship. The statistical relationship should instead be evaluated on the basis of the correlation coefficient and the structural model. Moreover, the relatively high mean may reflect favorable performance, positive perceptions among respondents, or a tendency toward socially desirable evaluations; the available data do not permit a definitive distinction among these explanations. The reported skewness and kurtosis values for all four constructs fall within the range of -2 to +2. This pattern is consistent with the absence of severe deviations from

distributional symmetry; however, it does not by itself establish the assumption of multivariate normality. In maximum-likelihood structural equation modeling, examination of the distributional form of variables alongside other assumptions is important, particularly because univariate normality and multivariate normality are distinct concepts.

Table 3. Descriptive Statistics of Auditor Professional Competence Items

Code	Item	Mean	Standard Deviation
Q1	The auditor possesses sufficient specialized knowledge to perform professional duties.	3.95	0.72
Q2	The auditor has the necessary skills to analyze and evaluate financial statements.	3.88	0.75
Q3	The auditor has sufficient experience in performing internal and external audits.	3.82	0.79
Q4	The auditor uses up-to-date audit technologies and software.	3.76	0.81
Q5	The auditor participates in professional training programs and enhances professional capabilities.	3.91	0.74
Q6	The auditor is capable of providing professional recommendations based on data analysis.	3.84	0.77
Q7	The auditor is capable of making appropriate decisions when confronted with complex auditing issues.	3.86	0.73
Q8	The auditor is capable of identifying risks and weaknesses in financial processes.	3.93	0.70
Q9	The auditor continuously updates professional knowledge and skills.	3.85	0.76

Table 3 indicates that the highest mean score for professional competence was associated with possessing sufficient specialized knowledge to perform audit duties (3.95). This was followed by the ability to identify risks and weaknesses in financial processes, with a mean of 3.93, and participation in professional training, with a mean of 3.91. This pattern indicates that, among the components measured, respondents provided relatively higher evaluations of fundamental knowledge, risk identification, and professional training. Conceptually, these three components are related to important aspects of auditors' technical responsibilities: specialized knowledge supports the understanding of requirements and transactions, risk identification supports the determination of areas susceptible to misstatement, and training contributes to maintaining up-to-date professional capabilities. However, these results should not be interpreted as a definitive ranking of auditors' actual capabilities. The difference between the mean of 3.95 for specialized knowledge and 3.76 for technology use is 0.19 points. Although this difference is observable descriptively, its statistical significance cannot be determined without an appropriate test for comparing dependent item means. Moreover, the specialized knowledge item uses a broad formulation and may reflect respondents' subjective evaluation of knowledge, whereas the technology item refers to more specific practical behavior or organizational resources. Therefore, the difference between the two means may partly arise from differences in the nature and specificity of the items. The lowest mean was associated with the use of up-to-date audit technologies and software (3.76), although this value remained above the midpoint of the scale. This finding may be regarded as an indication of the need for further examination of the technological capabilities of audit firms rather than as evidence of a general technology deficit across the Iraqi auditing market. Additional information regarding access to software, training in data-analysis tools, firm size, and engagement type would be required to explain this result. Likewise, the mean score for sufficient experience was 3.82, and that for providing recommendations based on data analysis was 3.84. These values indicate that respondents' evaluations of these components were slightly lower than their evaluations of specialized knowledge, but descriptive data alone do not allow conclusions to be drawn regarding the reasons for these differences. From a practical perspective, the distribution of the means suggests that audit-firm managers should not limit professional development programs to theoretical training. Integrating standards-based education with practical data-analysis exercises, the use of audit

tools, examination of complex cases, and structured feedback may be considered in subsequent evaluations. Nevertheless, this recommendation constitutes a managerial inference based on the descriptive pattern, and the effectiveness of such a program was not tested in the present study.

Table 4. Descriptive Statistics of Audit Quality Items

Code	Item	Mean	Standard Deviation
Q28	The level of audit quality in the firm is satisfactory.	3.94	0.70
Q29	Audit reports have sufficient accuracy and correctness.	3.91	0.72
Q30	The audit process is performed in accordance with professional standards.	3.89	0.74
Q31	Audit quality has increased stakeholder confidence.	3.87	0.76
Q32	The firm's auditors possess sufficient knowledge and skills.	3.92	0.71
Q33	Audit quality has contributed to reducing financial errors and irregularities.	3.88	0.75
Q34	Audit reports provide sufficient transparency.	3.90	0.73
Q35	Audit quality is consistent with client expectations.	3.86	0.77
Q36	Audit quality has contributed to improving the organization's financial processes.	3.93	0.69

The highest mean among the audit quality items was associated with the overall evaluation of the desirability of audit quality (3.94). The item concerning the contribution of auditing to the improvement of financial processes, with a mean of 3.93, and the item concerning auditors' sufficient knowledge and skills, with a mean of 3.92, ranked next. In contrast, the alignment of audit quality with client expectations had the lowest mean, at 3.86. All means were above the midpoint of the scale, indicating a generally positive assessment of audit quality in the firms examined. Analytically, the difference between the overall evaluation of audit quality and its conformity with client expectations may indicate that respondents distinguish between professional audit quality and responsiveness to client expectations; however, this interpretation remains only a possibility. Client expectations may not always be aligned with professional requirements, and audit quality should not be defined solely in terms of auditee or client satisfaction. Accordingly, the item concerning client expectations should be interpreted alongside compliance with standards, report accuracy, and error reduction rather than as an independent and definitive criterion of quality. An important methodological issue is that some audit quality items overlap conceptually with components of professional competence. For example, Item Q32 associates quality with auditors' knowledge and skills, while knowledge and skills are also measured within the competence construct. This overlap may strengthen the correlation between the two constructs because part of the operationalization of audit quality contains content similar to that of competence. Therefore, future studies should, as far as possible, measure audit quality using indicators independent of individual auditor characteristics, such as engagement file review outcomes, quality-control findings, or objective indicators related to financial reporting.

Table 5. Results of Normality Tests for the Study Constructs

Construct	Kolmogorov-Smirnov Statistic	*p*	Shapiro-Wilk Statistic	*p*
Auditor professional competence	0.087	0.123	0.978	0.156
Auditor integrity	0.079	0.189	0.982	0.201
Auditor professional ethics	0.092	0.098	0.975	0.134
Audit quality	0.084	0.145	0.980	0.178

The significance levels for both tests were reported to exceed .05 for all constructs; therefore, the null hypothesis that the observed distributions do not differ significantly from the normal distribution was not rejected. This result is consistent with the use of parametric methods, but it does not constitute definitive proof of data normality. In relatively large samples, normality tests may display varying sensitivity to certain deviations. Furthermore, in

structural equation modeling, multivariate normality and the presence of outliers may also affect parameter estimates. Accordingly, the results of the normality tests should be interpreted in conjunction with skewness and kurtosis statistics and the examination of other model assumptions.

Table 6. **Pearson Correlation Matrix Among the Study Constructs**

Construct	1	2	3	4
1. Auditor professional competence	1			
2. Auditor integrity	.68**	1		
3. Auditor professional ethics	.65**	.72**	1	
4. Audit quality	.71**	.75**	.73**	1

Note. p < .01.

The Pearson correlation coefficient between professional competence and audit quality was reported as r = .71 and was significant at the .01 level. This coefficient indicates a positive and relatively strong relationship between the two constructs; that is, within this sample, respondents who evaluated professional competence more highly generally also evaluated audit quality more highly. Conceptually, this relationship is consistent with the expectation that knowledge, skills, experience, and risk-identification capability support the effective performance of audit procedures. However, the correlation coefficient alone does not determine the direction of causality and does not rule out the influence of other factors, such as the firm's quality culture, supervision, resources, and engagement characteristics. The correlation between competence and audit quality was slightly lower than the correlation of integrity with audit quality (.75) and that of professional ethics with audit quality (.73). This comparison is descriptive only; a specific statistical test would be required to determine whether differences among these dependent correlations are statistically significant. In addition, the three independent constructs were correlated with one another: the correlation between competence and integrity was .68, the correlation between competence and professional ethics was .65, and the correlation between integrity and professional ethics was .72. This pattern indicates that the constructs are not completely independent of one another; consequently, the unique effect of each construct should be examined in a multivariate model. The relatively high positive correlations also raise the need to consider possible multicollinearity, although indices such as the variance inflation factor (VIF) or other appropriate diagnostic analyses would be required to assess the severity of multicollinearity.

To evaluate the measurement model, confirmatory factor analysis was reported for the four constructs of professional competence, integrity, professional ethics, and audit quality, comprising 36 items. Although the present article focuses on professional competence and audit quality, the inclusion of all four constructs in the confirmatory factor analysis is important because the correlations and structural paths were estimated within a model that incorporates all four constructs.

Table 7. **Standardized Factor Loadings of Professional Competence Items**

Item Code	Standardized Factor Loading	Standard Error	Critical Ratio	Reported Significance Level
Q1	0.78	0.054	12.45	0.001
Q2	0.75	0.058	11.89	0.001
Q3	0.72	0.061	11.23	0.001
Q4	0.69	0.064	10.56	0.001
Q5	0.77	0.055	12.18	0.001
Q6	0.74	0.059	11.67	0.001
Q7	0.76	0.056	11.98	0.001
Q8	0.79	0.053	12.67	0.001

Q9	0.73	0.060	11.45	0.001

The factor loadings of the professional competence items ranged from 0.69 to 0.79. The highest factor loading was associated with Item Q8, the ability to identify risks and weaknesses in financial processes, with a loading of 0.79. This was followed by sufficient specialized knowledge, with a loading of 0.78, and professional training, with a loading of 0.77. This pattern indicates that, in the reported measurement model, these items were relatively more strongly associated with the professional competence construct. However, a higher factor loading does not establish greater causal importance of that component for audit quality; rather, factor loadings indicate the association of an observed item with the latent construct, not its direct effect on the dependent variable. The lowest factor loading was associated with the use of up-to-date auditing technologies, at 0.69. This value is slightly below the commonly applied threshold of 0.70; however, its very small deviation from this threshold is not, by itself, sufficient justification for deleting the item. Decisions regarding item retention should take into account its theoretical importance, composite reliability, average variance extracted, and the effect of deleting the item on the content validity of the construct. Because technology constitutes an important dimension of the transformation of the auditing profession, removing the item solely to obtain a marginal increase in the factor loading could restrict the conceptual scope of professional competence. In the information provided, the critical ratios for all items were reported as exceeding the conventional threshold of 1.96, and the significance levels were reported as 0.001. However, the final report should clarify whether 0.001 refers to $p = .001$ or $p < .001$, because these two forms of statistical reporting are not equivalent. In addition, a comprehensive evaluation of the measurement model would be improved by reporting standardized factor loadings together with confidence intervals and diagnostic information regarding discriminant validity.

Table 8. **Measurement Model Fit Indices**

Index	Reported Value	Common Criterion Used in Research Reporting	Evaluation
CMIN/DF	2.14	Less than 3	Acceptable
GFI	0.92	Approximately 0.90 or higher	Acceptable
CFI	0.95	Approximately 0.90 or higher	Good
RMSEA	0.056	Less than 0.08	Good
TLI	0.94	Approximately 0.90 or higher	Acceptable
IFI	0.95	Approximately 0.90 or higher	Good
NFI	0.91	Approximately 0.90 or higher	Acceptable

The indices presented in Table 8 indicate acceptable fit of the measurement model. The chi-square-to-degrees-of-freedom ratio was 2.14 and fell within the commonly accepted range. The comparative indices CFI, TLI, IFI, and NFI also exceeded commonly used reference values. The RMSEA was 0.056, which is consistent with an acceptable level of approximate model error. On this basis, the reported evidence supports the interpretation that the proposed factor structure demonstrates an adequate fit to the sample data. However, satisfactory overall model fit does not by itself establish that all dimensions of construct validity are satisfied or that the model is superior to all plausible alternative models. More rigorous evaluation would require examination of discriminant validity, correlations among measurement errors, and potential alternative models. This issue is particularly important in the present study because certain audit quality items, such as those addressing auditors' knowledge and skills, conceptually overlap with professional competence. Accordingly, satisfactory model fit should be interpreted in conjunction with evidence regarding the conceptual distinctiveness of the constructs.

Table 9. **Reliability and Convergent Validity of the Study Constructs**

Construct	Number of Items	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Auditor professional competence	9	0.89	0.91	0.56
Auditor integrity	9	0.91	0.93	0.59
Auditor professional ethics	9	0.88	0.90	0.54
Audit quality	9	0.90	0.92	0.57

Cronbach's alpha for professional competence was reported as 0.89, while its composite reliability was 0.91. Both values exceed the commonly used threshold of 0.70 and support adequate internal consistency among the items. The AVE was 0.56; therefore, based on the reported values, the professional competence construct explains more than half of the average variance in its indicators. For audit quality, the corresponding values were Cronbach's alpha = 0.90, composite reliability = 0.92, and AVE = 0.57, which are consistent with acceptable reliability and convergent validity. These indices support the internal coherence of the instrument but should not be regarded as equivalent to comprehensive measurement validity or the objectivity of the measures. A high alpha coefficient indicates that the items are internally consistent, but under some circumstances it may also be influenced by excessive similarity among item contents. Furthermore, convergent validity differs from discriminant validity; AVE values above 0.50 alone do not demonstrate that professional competence is adequately distinct from audit quality. For this purpose, reporting criteria such as the heterotrait-monotrait ratio (HTMT) or comparing the square root of AVE with interconstruct correlations would be useful.

The principal hypothesis of the present article is that auditors' professional competence has a positive and significant relationship with audit quality. To test this hypothesis, two types of results should be distinguished: first, the simple correlation between professional competence and audit quality; and second, the path coefficient for professional competence in the structural model, which also includes auditor integrity and professional ethics.

Table 10. **Path Coefficient From Professional Competence to Audit Quality in the Structural Model**

Path	Unstandardized Coefficient (*B*)	Standard Error	Critical Ratio (C.R.)	Standardized Coefficient (β)	Reported Significance Level	Result
Auditor professional competence → Audit quality	0.41	0.065	6.33	0.38	0.001	Positive and significant relationship supported

The standardized path coefficient from professional competence to audit quality was reported as β = .38, while the unstandardized coefficient was *B* = 0.41. The critical ratio was 6.33, and the reported significance level was 0.001. Accordingly, the null hypothesis of no structural relationship is inconsistent with the reported data, and the hypothesis proposing a positive and significant relationship is supported. A standardized coefficient of .38 means that, holding the other predictors in the model constant, a one-standard-deviation increase in professional competence is associated with a 0.38-standard-deviation increase in audit quality. This interpretation concerns a conditional association within the model and should not be regarded as a definitive estimate of a causal effect.

The difference between the correlation coefficient of .71 and the standardized path coefficient of .38 constitutes an important finding of the study. The correlation coefficient reflects the bivariate association between competence and audit quality without statistically controlling for the other constructs in the model. In contrast, the path coefficient estimates the relationship between competence and audit quality after accounting for integrity and professional ethics. Because competence is correlated with these two other constructs, part of its overall relationship with audit

quality may be associated with variance shared among the constructs. Therefore, a path coefficient lower than the simple correlation does not necessarily constitute a contradiction; rather, it demonstrates that the bivariate association and the unique conditional association are different quantities. On the other hand, the coefficient of .38 indicates that professional competence remains positively associated with audit quality in the multiple-predictor model. This finding is theoretically important because it points to the role of auditors' technical capacity beyond its covariation with ethical and behavioral characteristics. Nevertheless, indices of multicollinearity and, where possible, confidence intervals for the coefficients should be reported to assess the stability of this estimate. The relatively high correlations among competence, integrity, and professional ethics require cautious interpretation of their unique effects.

Table 11. **Structural Model Fit Indices**

Index	Reported Value	Common Criterion Used in Research Reporting	Evaluation
CMIN/DF	2.31	Less than 3	Acceptable
GFI	0.91	Approximately 0.90 or higher	Acceptable
CFI	0.94	Approximately 0.90 or higher	Acceptable
RMSEA	0.062	Less than 0.08	Acceptable
TLI	0.93	Approximately 0.90 or higher	Acceptable
IFI	0.94	Approximately 0.90 or higher	Acceptable
NFI	0.90	Approximately 0.90 or higher	At the threshold of acceptability

The structural model fit indices also fell within the commonly reported acceptable ranges. The chi-square-to-degrees-of-freedom ratio was 2.31, the CFI was 0.94, and the RMSEA was 0.062. These values are consistent with an acceptable model fit. The NFI was 0.90 and therefore lies at the conventional threshold. Consequently, rather than characterizing all indices as "highly satisfactory," the overall conclusion should be reported as indicating "acceptable fit of the structural model." This wording is more consistent with the approximate nature of fit indices and the need to interpret them jointly.

Table 12. **Coefficient of Determination for Audit Quality in the Overall Research Model**

Dependent Variable	R^2	Adjusted R^2	Standard Error of the Estimate
Audit quality	0.68	0.66	0.35

The coefficient of determination of .68 indicates that the three predictors included in the model collectively explain 68% of the observed variance in audit quality within the sample. The adjusted coefficient of determination of .66 also indicates a high level of in-sample explanatory power after adjustment for the number of predictors. However, these figures cannot be attributed to professional competence alone because the model simultaneously includes three independent constructs. Therefore, it would be incorrect to report that "professional competence explains 68% of audit quality." The correct interpretation is that the complete research model, including competence, integrity, and professional ethics, explains 68% of the variance in audit quality.

A high coefficient of determination does not establish out-of-sample predictive power. Because the study information is based on data from a single survey and no out-of-sample validation was reported, this value should be treated as an indicator of in-sample explanatory power. Claims regarding stable predictive performance would require an independent sample or the application of cross-validation procedures.

Table 13. **Results of Stepwise Regression for Predicting Audit Quality**

Step	Variable Entered	R	R^2	ΔR^2	F Change	Reported Significance Level
1	Auditor integrity	0.75	0.56	0.56	275.34	0.001

2	Auditor professional competence	0.80	0.64	0.08	48.67	0.001
3	Auditor professional ethics	0.82	0.68	0.04	25.12	0.001

The stepwise regression results indicate that auditor integrity entered the equation at Step 1, with R^2 = .56. At Step 2, following the entry of professional competence, R^2 increased to .64, with a reported increase in the coefficient of determination of ΔR^2 = .08. At Step 3, professional ethics entered the equation and R^2 increased to .68, with a reported change of ΔR^2 = .04. Based on this sequence of entry, professional competence was added to the model after integrity and contributed to an increase in the model's reported in-sample explanatory power. However, this table alone does not demonstrate that professional competence independently explains 8% of the variance in audit quality in a single-predictor model; the value of .08 represents the change in R^2 in the presence of a variable that had already been entered. Moreover, this result is not identical to the standardized path coefficient of .38 obtained from the structural equation model because the estimation method and model structure may differ. Because the present article focuses on professional competence, the most important result from this table is that adding competence to a model that initially included integrity was associated with a reported statistically significant increase in explanatory power, rather than that the unique effect of competence can be inferred solely from the change in R^2. Interpretation of this table requires an additional caution. The order of entry in stepwise regression is determined by the model-selection criterion and does not necessarily represent a theoretical ranking of variable importance. If the purpose of the research is to test theory-driven hypotheses, it is preferable to determine the order of variable entry a priori on theoretical grounds and to report coefficients, changes in R^2, and tests for nested models transparently. In addition, the data provided do not include standardized regression coefficients, standard errors, or multicollinearity diagnostics. Therefore, no conclusion regarding the magnitude of the unique effect of competence in this analysis can be drawn beyond the reported change in explanatory power. Overall, the descriptive findings, correlation analysis, confirmatory factor analysis, and structural model provide a consistent picture: professional competence was evaluated above the midpoint of the scale in the sample examined, showed a positive correlation with audit quality, and demonstrated a positive and significant path to audit quality in the multiple-predictor model. This convergence strengthens the credibility of the general interpretation of the relationship; however, the limitations associated with the self-report instrument, conceptual overlap among some items, inconsistencies in the sampling information, and the absence of objective audit quality data constrain the scope of the conclusions.

Discussion and Conclusion

The present study examined the effect of auditors' professional competence on audit quality in Iraqi audit firms. The findings consistently indicate that professional competence is positively associated with audit quality. The descriptive results showed that the mean score for auditors' professional competence was 3.87, which was above the midpoint of the five-point scale, while the mean score for audit quality was 3.90. These results suggest that respondents generally evaluated both professional competence and audit quality favorably. More importantly, the Pearson correlation analysis showed a relatively strong and statistically significant positive relationship between professional competence and audit quality (r = .71, p < .01). In the structural model, after accounting for auditor integrity and professional ethics, professional competence retained a positive and statistically significant relationship with audit quality, with a standardized path coefficient of β = .38. Therefore, the findings support the

central proposition of the study that greater professional competence among auditors is associated with higher audit quality in Iraqi audit firms.

The positive relationship between professional competence and audit quality is theoretically plausible because the audit process relies extensively on knowledge, analytical ability, technical judgment, and the capacity to evaluate evidence under conditions of uncertainty. Auditors must understand accounting standards, identify risks of material misstatement, evaluate internal controls, determine the nature and extent of audit procedures, assess contradictory evidence, and formulate defensible conclusions. These activities cannot be performed effectively through procedural compliance alone. They require the professional ability to interpret information and adapt audit procedures to engagement-specific circumstances. The present finding is therefore consistent with previous research showing that auditor competence contributes positively to the quality of audit work (5, 6). The result also agrees with evidence indicating that competence remains an important determinant of audit quality when considered alongside other professional characteristics such as independence and professionalism (1, 2).

The magnitude of the bivariate correlation between competence and audit quality is noteworthy. A correlation of .71 indicates that respondents who reported higher levels of professional competence also tended to report substantially higher audit quality. This relationship can be explained by the fact that competence affects multiple stages of an audit engagement. Auditors with stronger professional knowledge are better able to understand the client's accounting system, recognize unusual transactions, interpret financial statement relationships, identify deficiencies, and determine whether collected evidence is sufficient and appropriate. Such abilities can reduce the probability that important matters are overlooked during the engagement. Similar conclusions were reported by Cahyadi Wiranata Kusuma and Eka Damayanthi, who found that auditor competence, together with work experience and integrity, was associated with higher-quality audit results (9). Armawan and Wiratmaja likewise identified competence as one of the relevant determinants of audit quality in a model that also considered experience, independence, and audit fees (8). These studies reinforce the interpretation that competence operates as a core professional resource that enables auditors to perform audit procedures more effectively.

The descriptive findings concerning individual competence items provide additional insight into the mechanisms underlying this relationship. The highest mean score was observed for sufficient specialized knowledge, followed by the ability to identify risks and weaknesses in financial processes and participation in professional training. This pattern suggests that respondents viewed technical knowledge, risk recognition, and professional development as particularly strong aspects of auditor competence. These dimensions are directly relevant to audit quality because effective auditing depends on an auditor's capacity to distinguish significant risks from routine matters and to design audit responses accordingly. The importance of specialized knowledge is supported by research showing that task-specific knowledge can improve audit quality, particularly when auditors deal with technically demanding areas. Evidence from audits of income tax accounts indicates that task-specific knowledge improves auditors' performance by enabling them to evaluate complex matters more effectively (7). The present findings extend this logic to a broader conception of professional competence in Iraqi audit firms.

The relatively high score for risk-identification capability is also important. Auditing is fundamentally risk-oriented, and the quality of an engagement depends to a substantial extent on whether the auditor correctly identifies the areas in which material misstatement is most likely to occur. If risks are not identified accurately, audit resources may be directed toward less important areas while high-risk transactions or controls receive insufficient attention. Competent auditors are more likely to recognize patterns, inconsistencies, weaknesses in internal control, and

unusual financial relationships that warrant further investigation. This interpretation is consistent with research demonstrating that competence can contribute to audit quality through risk-based audit practices (11). Accordingly, the positive competence-quality relationship observed in the present study may partly reflect the contribution of better risk assessment to more focused and effective audit procedures.

The finding that professional training received one of the highest descriptive evaluations further emphasizes the importance of continuing professional development. The knowledge base required for auditing changes continually as financial reporting standards, auditing standards, technologies, regulatory expectations, and business models evolve. Professional competence is therefore not a fixed characteristic that is fully established at the point of initial qualification. It requires continuous updating through training, practical experience, technical consultation, and exposure to new audit challenges. Previous research has demonstrated that professionalism and competence are related to audit quality and that work experience can influence how these professional attributes translate into audit performance (12). The current findings are consistent with the view that maintaining competence over time requires systematic learning rather than reliance solely on prior education or professional credentials.

Although the descriptive results were generally favorable, the use of up-to-date audit technologies and software received the lowest mean among the professional competence items. This finding deserves attention because the increasing digitization of accounting systems has expanded the technological demands placed on auditors. Contemporary audits may involve large volumes of electronic data, automated controls, integrated accounting systems, and sophisticated analytical procedures. Consequently, technological competence is becoming increasingly inseparable from broader professional competence. The relatively lower mean for technology use may indicate that technological capability is an area in which further development could be beneficial within the firms examined. This interpretation is consistent with findings emphasizing the importance of information-system understanding in the relationship between auditor competence and audit quality, particularly when audit complexity and time-budget pressure are present (10). However, because the present study measured perceptions rather than direct technological performance, this finding should be understood as an indication for further examination rather than conclusive evidence of inadequate technological capability.

Another important result concerns the distinction between the simple correlation coefficient of .71 and the standardized structural path coefficient of .38. The lower path coefficient does not contradict the correlation result. The correlation represents the total bivariate association between competence and audit quality without controlling for the other constructs, whereas the structural coefficient reflects the unique relationship between professional competence and audit quality after auditor integrity and professional ethics are simultaneously considered. Because competence was positively correlated with both integrity and professional ethics, part of the bivariate association between competence and audit quality is shared with these related auditor characteristics. The persistence of a statistically significant path coefficient of .38 is therefore particularly important because it suggests that professional competence contributes uniquely to the explanation of audit quality even when ethical and behavioral characteristics are included in the model.

This finding is consistent with the broader literature suggesting that audit quality is multidimensional and cannot be explained by competence alone. Prior studies have repeatedly examined competence alongside independence, integrity, experience, accountability, professionalism, and professional skepticism. Renaldi and Mawardi, for example, considered auditor competence, independence, and professional skepticism in relation to audit quality, emphasizing the complementary importance of technical and professional attributes (13). Natalie et al. similarly

examined professionalism, experience, accountability, competence, and independence, demonstrating the relevance of multiple auditor characteristics to audit quality (1). The present findings therefore support a balanced interpretation: competence is an important independent contributor to audit quality, but it operates within a wider configuration of professional attributes rather than as an isolated determinant.

The relatively strong explanatory power of the overall model provides further support for this multidimensional interpretation. Professional competence, integrity, and professional ethics collectively explained 68% of the variance in audit quality, with an adjusted R^2 of .66. This indicates that the combined model possesses substantial in-sample explanatory power. However, this value must not be attributed solely to competence. Rather, it suggests that audit quality is closely associated with a combination of technical capability and professional behavior. This conclusion corresponds with research showing that competence and integrity jointly influence audit quality and that quality-assurance mechanisms can shape this relationship (4). It is also consistent with evidence that quality-control systems and auditor competence jointly contribute to higher audit quality (3). Thus, professional competence may be most effective when embedded within an organizational environment that promotes ethical conduct, appropriate supervision, quality assurance, and systematic review.

The stepwise regression analysis provides additional evidence regarding the contribution of competence. Auditor integrity entered the model first and explained 56% of the variance in audit quality. When professional competence was added at the second step, R^2 increased from .56 to .64, representing an increment of .08. Professional ethics subsequently increased R^2 to .68. Although the incremental value of .08 cannot be interpreted as the total explanatory effect of competence, it demonstrates that competence provided additional explanatory information beyond integrity in the reported regression sequence. This pattern reinforces the structural model results by indicating that competence contains information relevant to audit quality that is not entirely captured by integrity. The finding aligns with prior research in which competence retained importance even when other auditor characteristics were incorporated into the same analytical framework (2, 8).

The measurement-model results also strengthen confidence in the interpretation of professional competence as a coherent construct. The factor loadings for the nine competence items ranged from .69 to .79, Cronbach's alpha was .89, composite reliability was .91, and AVE was .56. These values indicate adequate internal consistency and convergent validity. The strongest loading was associated with identifying risks and weaknesses in financial processes, followed by specialized knowledge and professional training. These findings suggest that respondents' perceptions of competence were particularly structured around technical knowledge, risk-oriented judgment, and continuing development. Such components correspond closely to the demands of professional auditing and help explain why competence was positively associated with audit quality. The empirical literature similarly indicates that competence reflects a combination of knowledge, practical ability, and judgment rather than a single narrowly defined skill (5, 6).

The findings also highlight the importance of work experience as a context in which competence develops and is applied. Experience exposes auditors to diverse transactions, control environments, reporting issues, and client circumstances, thereby providing opportunities to convert theoretical knowledge into practical judgment. Previous research has shown that experience and competence are jointly relevant to audit quality (8, 9). More recent evidence has also suggested that audit tenure may moderate relationships involving work experience, competence, and audit quality (14). Although the present study did not test audit tenure as a moderator, these findings suggest that the value of competence may partly depend on accumulated engagement knowledge and familiarity with client-specific

risks. Future models may therefore benefit from examining how competence interacts with experience-related variables rather than assuming that its effect is identical across all auditors and engagements.

The positive association between competence and audit quality is also consistent with the idea that professional capability helps auditors cope with complexity. Complex audit assignments require auditors to integrate multiple sources of information, resolve contradictory evidence, interpret sophisticated transactions, and make judgments under time constraints. In such circumstances, the quality of an audit is likely to depend heavily on the auditor's ability to organize and interpret information efficiently. Research addressing audit complexity and time-budget pressure indicates that competence becomes particularly relevant when auditors operate under demanding engagement conditions (10). The current findings therefore support the broader proposition that competence provides auditors with cognitive and technical resources that facilitate effective responses to complex auditing tasks.

Taken together, the findings of the present study are broadly aligned with the previous empirical literature. Studies conducted in different auditing environments have consistently shown positive associations between competence and audit quality, whether competence is examined independently or together with independence, professionalism, experience, integrity, skepticism, quality assurance, or quality-control systems (2-5, 13). The contribution of the present study lies in demonstrating a similar pattern within Iraqi audit firms. This is important because institutional, regulatory, technological, and professional conditions differ across countries, and relationships identified in other settings cannot automatically be assumed to apply to Iraq. The current evidence suggests that professional competence is also an important correlate of audit quality in the Iraqi auditing context and that its contribution remains statistically significant even when integrity and professional ethics are considered simultaneously.

A further implication is that professional competence should be viewed as both an individual and organizational resource. At the individual level, competence reflects the auditor's knowledge, technical skills, analytical capacity, and professional judgment. At the organizational level, audit firms influence the development and effective use of competence through recruitment, training, engagement assignment, supervision, consultation, technological investment, and quality-control procedures. Research demonstrating the role of quality-control systems and quality assurance suggests that the organizational environment can reinforce individual competence and increase the probability that technical knowledge is translated into high-quality audit work (3, 4). Consequently, the positive competence-quality relationship observed in the present study should not be interpreted as implying that responsibility for audit quality rests solely with individual auditors. Rather, audit firms play a central role in creating the conditions under which professional competence can be developed and effectively applied.

The present study has several limitations that should be considered when interpreting its findings. First, the research employed a cross-sectional survey design; therefore, although statistically significant relationships were identified, causal direction cannot be established conclusively. Second, both professional competence and audit quality were assessed primarily through self-reported perceptions, which may be affected by common method variance, social desirability, or respondents' tendency to provide favorable evaluations of their own professional environment. Third, some conceptual overlap exists between the competence and audit quality measures, particularly where audit quality items refer to auditors' knowledge and skills, and this overlap may have contributed to the magnitude of the observed relationship. Fourth, the information available regarding questionnaire distribution was inconsistent, with different reported numbers of distributed questionnaires, and the definition of the target population was not fully consistent with the reported internal and external audit experience of respondents. Fifth,

the study did not include objective indicators of audit quality, such as engagement review results, regulatory inspection findings, restatements, reporting errors, or other archival measures. Finally, although the structural model accounted for integrity and professional ethics, other potentially important determinants of audit quality, including independence, professional skepticism, firm size, audit tenure, workload, time-budget pressure, technological infrastructure, and client complexity, were not incorporated into the model.

Future studies should employ longitudinal or multi-wave designs to provide stronger evidence regarding the temporal relationship between professional competence and audit quality. Researchers could also combine questionnaire data with objective indicators of audit performance, including quality-control review outcomes, audit adjustments, inspection findings, financial statement restatements, or assessments of engagement documentation. Additional studies should refine the measurement of audit quality so that it is conceptually distinct from individual auditor competence and should formally assess discriminant validity using appropriate criteria. Comparative studies across Iraqi cities, different categories of audit firms, public and private audit settings, or different professional qualification groups may reveal whether the competence-quality relationship varies across institutional contexts. Future models could also examine moderating or mediating variables such as audit experience, audit tenure, professional skepticism, independence, risk-based auditing, technological competence, information-system understanding, workload, time-budget pressure, organizational quality culture, and quality-control systems. Multilevel research could further distinguish auditor-level competence from firm-level resources and governance mechanisms. Finally, replication using larger probability-based samples would improve generalizability and allow more robust testing of subgroup differences and interaction effects.

Audit firms should treat professional competence as a continuing organizational priority rather than as a qualification verified only at recruitment. Professional development programs should combine technical updates in accounting and auditing standards with practical training in risk assessment, data analysis, complex case evaluation, professional judgment, and audit technologies. Firms should periodically assess auditors' competencies and use the results to design individualized development plans, allocate staff to engagements appropriately, and identify areas requiring additional supervision or consultation. Greater investment in audit software, data-analytics tools, and training in their effective use would be particularly beneficial given the comparatively lower evaluation of technology-related competence. Firms should also strengthen structured coaching, engagement reviews, knowledge-sharing mechanisms, and post-engagement feedback so that professional experience is converted into transferable expertise. Recruitment and promotion systems should consider both professional qualifications and demonstrated practical competence, while engagement teams should be composed to ensure an appropriate combination of technical knowledge, experience, ethical conduct, and risk-management capability. Professional bodies and regulators may likewise support audit quality by expanding continuing professional education requirements, competency-based certification, technological training, and mechanisms for monitoring the ongoing professional development of auditors.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

All ethical principles were adheried in conducting and writing this article.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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