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The effect of forensic accounting expertise on independent audit quality in Iraq and Iran: A comparative study

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Abstract

Skill, experience, and expertise are three factors that might influence the quality of an audit; forensic accountants can conduct higher-quality audits since they have completed a specialized fraud course. Thus, the purpose of this article is to examine how forensic accounting methods affect the caliber of audits. All of the businesses that are listed on the stock exchanges in Tehran and Iraq make up the statistical population. To determine the sample, 35 enterprises from 2013 to 2020 in Iraq and 100 companies from 2014 to 202 in Iran were chosen using the systematic elimination approach. The study hypotheses were tested using the multi-variate regression model that was based on the combined data. The findings indicated that the quality of audits in Iran and Iraq is positively impacted by forensic accounting techniques. Additionally, the findings demonstrated that the number of independent audit report paragraphs in Iran and Iraq is not significantly impacted by the forensic accounting technique. The importance and application of accounting and forensic auditing are felt more than before due to the lack of professional activities related to forensic accounting in the Iraqi economic environment, the rise in cases of financial embezzlement and corruption, the need for financial discipline along with economic development, and the preservation of public trust in the accuracy of financial information. Thus, doing this research can help enhance the corporate climate in Iran and Iraq by determining the significance and requirement of implementing forensic auditing.

Keywords: Forensic accounting, Audit quality, Independent auditor, Financial reporting quality

1. Introduction

Financial and administrative corruption have been major challenges for the accounting industry. The biggest problem is that people no longer have faith in accountants. Because of this, auditors and accountants are paying more attention to the procedures and mechanisms used to identify instances of financial and administrative misconduct. In the fight against and detection of financial fraud and corruption, forensic accounting procedures are considered cutting-edge [1]. When accounting data and other sources are used to objectively describe facts in a way that supports the court's reasonable judgments, this practice is known as forensic accounting [2].

Hopwood et al. referred to forensics as "the application of accounting, auditing, finance, quantitative methods, specific areas of law, research skills in collecting, analyzing, and evaluating supporting evidence, clarifying and communicating results" [2]. Bhasin [3] defined forensic accounting as "a science that attempts to analyze, research, inquire, and investigate issues of civil law, criminal law, and legislative philosophy by applying knowledge in accounting, finance, taxation, and auditing." These tasks are performed by an individual or team with appropriate scientific and practical training. Accounting, auditing, searching, investigating, and researching are all areas in which a professional has developed expertise, all of which is used to great use in the profession. Based on these findings, forensic accountants need to be well-versed in both accounting and the law, as well as possess strong analytical, diagnostic, and investigative abilities. Forensic accountants should have and organize the profession around a set of general criteria, professional principles, ethics, and behaviors [4]. This includes the greatest level of professional skepticism and legal case support. Using auditing expertise also involves thinking about law enforcement, disputes, and court proceedings. It's a field that relies on financial knowledge and research abilities to regulate financial statement fraud within a legal framework that offers adequate proof. Companies are always vulnerable to fraud, but auditors do not take on the burden of spotting it. Forensic accounting is employed in the detection of fraud since, unlike an error, fraud is intentional and hidden and cannot be identified by traditional procedures [5]. The declared objective of this study is to determine if judicial accounting affects the quality of audits [6].

The importance and application of accounting and judicial audit are felt more keenly than ever before [7] due to the dearth of forensic accounting-related professional fields in the economic environment of Iraq and the rise in instances of corruption and financial embezzlement, as well as the need to develop the economy alongside strict financial discipline and the maintenance of public trust in the quality of financial information. This is because independent auditors are only tasked with ensuring that financial statements are in accordance with generally accepted accounting rules and avoid any responsibility for uncovering fraud or other financial irregularities. Therefore, doing this study can aid in bettering the business climate in Iran and Iraq by establishing the significance and necessity of performing forensic audits.

2. Theoretical principles and hypothesis development

2.1. Audit quality and the number of paragraphs in the audit report

According to the vast majority of research, audit quality is defined as the likelihood that auditors will find and disclose problems in the employer's accounting system [8]. According to this concept, the auditor's job is reduced to looking for and reporting on deviations from generally accepted accounting principles. This characteristic does not reflect the advantages of high audit quality beyond discovering and reporting violations of generally accepted accounting principles and standards [9], despite the fact that auditors must verify that financial statements are free from substantial misstatements. Therefore, auditors are supposed to analyze whether the accounting choices of the employer are consistent and examine to what extent the financial statements correctly reflect the fundamentals of the company's economy [10].

2.2. Forensic accounting

Within a legal context, forensic accountants utilize their knowledge of finance and research abilities to help prevent fraud and verify the accuracy of financial statements. As a result, the audit quality of financial statements is enhanced by this method of accounting, and the financial reporting system as a whole is made more reliable. Since fraud in financial statements has increased and independent audits have failed and been unable to keep up with the rise in the trust gap [1, 11, 12], judicial accounting and auditing have become increasingly important in bridging the gap between expectations and reality. Forensic accountants focus on avoiding and detecting fraud, investigating fraud in financial statements and associated areas, and other judicial and court difficulties. Forensic accountants are educated to go beyond the numbers on paper and consider the full context of a company's operations. Forensic accounting is a thorough process for determining whether or not a fraud has occurred. The analysis of anti-fraud controls and the prevention of fraud fall under this category. One of the

primary drivers of interest in, and the development of, forensic accounting is the widespread problem of fraud in financial statements and financial corruption within businesses. Forensic accountants' primary responsibility is to prevent and investigate cases of money laundering [13], which occurs when criminals conceal the true origins of their earnings by channeling them via legitimate businesses and investments.

2.3. The relationship between forensic accounting techniques with audit quality and the number of paragraphs in the audit report

The increasing economic and technological improvements have greatly contributed to the expansion of today's enterprises and business communities. There are now more businessmen, more information and technology, and a more complicated organizational structure within most organizations [14]. The intricacy of fraud and money laundering, as well as errors and deficiencies in technology and computer security systems, corporate practices, and similar conflicts, have all contributed to a rise in misuse. As a result, auditors and accountants now more than ever require judicial expertise to combat rising criminality and financial wrongdoing. Therefore, the purpose of this study is to examine how forensic accounting has affected audit quality in Iran and Iraq, two emerging countries. It is difficult to quantify the losses that result from fraudulent and corrupt accounting practices, but recent studies demonstrate that they continue to grow each year. One of the most prominent characteristics of corrupt accounting is the intentional pursuit of financial gain at the expense of the public trust. Therefore, the primary characteristic of forgery and fraud is intent. Anyone is capable of engaging in fraudulent activity, albeit the motivations behind such actions vary. Today, many businesses brazenly turn to instability and corruption to gain profits. The magnitude of proprietors' abnormalities grows more severe every day. It's much simpler to lie and hide when working for a company. The use of cash techniques is crucial to the success of these misconducts [15].

Institutional and corporate management fraud and forgeries are prime examples of situations where embezzlement and concealment should be investigated. Infidelity between business partners reduces the likelihood that earnings will be shared and increases tax avoidance as a means of covering up wrongdoing. Due to the rising sophistication of fraud and corruption, the auditing industry has adapted by developing the subspecialties of legal and forensic accounting [14]. As a result, auditors have taken the rap for every corporate scandal in recent years, notably with the downfalls of WorldCom and Enron. These divisions fraudulently issue reports that undermine the credibility of financial statements prepared using accounting approaches that make imaginative use of a wide range of accounting alternatives. As a result, accountants and auditors employed by the judiciary have become increasingly interested in the accounting data presented in the financial statements of various organizations due to the creation of regular and accurate reviews, later referred to as judicial accounting [16]. Therefore, the purpose of this study is to shed light on the function of forensic accounting in regulating non-traditional accounting methods in accordance with globally accepted accounting principles.

Because they are limited to ensuring that financial statements are free from substantial misstatements, current audit methodologies are inadequate for detecting and preventing fraud and accounting errors [1]. Since the auditor has varying services to provide and responsibilities to fulfill in order to meet stakeholders' expectations, the gap between what is and isn't being done to prevent fraud in financial statements and unethical or unlawful behavior widens. As long as the auditors' role is not to uncover fraud in the records of the economic unit, they must give their judgments regarding the compliance of the company's financial reports with international standards. Tosun [14] discovered that the pros and cons offered by ever-evolving information technologies in our current conditions have played a significant role in the evolution of fraudulent activities, which are becoming ever more complex as a result. Numerous monetary losses have resulted from various types of accounting fraud. However, judicial accounting is necessary due to the shortcomings of the audit system. The findings suggest that people's perspectives varied across demographic categories and that they were more or less likely to be corrupted or misled while trying to decipher financial statements.

According to the research of Hassoon [16], limiting creative accounting practices in accordance with international accounting standards requires an understanding of both the judicial and creative accounting

knowledge bases as well as the function of judicial accountability. Judicial accountability was found to be effective in lowering instances of unwarranted creative accounting by economic units.

Ahmed and Ahmed [13] revealed that the rise of money laundering crime at the national and worldwide levels led to the emergence of judicial accountability and the necessity for professional experts in accounting and auditing. Expert witnesses can now share their thoughts in court. The most crucial advice was to increase judicial responsibility for stopping money laundering schemes. Due to his knowledge and experience in accounting, auditing, and law, the forensic accountant plays a vital part in the investigation.

According to Savu and Bolcu [17], digital transformation necessitates significant changes in the manner of work and necessitates abandoning the labor-intensive processes upon which traditional procedures were founded. For this reason, there must be careful coordination between the government's working apparatus and a new organization organized with legal personality for the purpose of implementing plans and public policies related to digital transformation and the information society. As a result, they demonstrated how the use of technology has made forensic accounting reports more accurate and efficient.

Molla Imeny et al. [18] observed that judges and auditors have vastly different views on anti-money laundering duties. Auditors' self-perceptions of investigative duties need to adequately satisfy FATF requirements, notably where corporate structures, charities, and trusts are used and where the identity of the beneficial owners, payers, and receivers of monies cannot be identified.

Sharifi et al. [19] demonstrated that the forensic accounting paradigm differs substantially between organizations with strong and low protection of shareholder interests. This finding demonstrates the connection between forensic accounting and the paradigm of shareholder protection, which seeks to establish a uniform method of ensuring that accounting outputs adhere to applicable laws and regulations and that financial irregularities are uncovered and dealt with. It provides the interests of the shareholders and develops confidence among the company's shareholders. There was shown to be no correlation between audit quality and fee persistence by Salehi et al. [20]. They claimed that the correlation between audit quality and retained earnings was unaffected by the economic downturn.

Researchers Salehi et al. [21] discovered a correlation between audit quality and firm and auditor size and skill. In other words, when you choose a large auditing firm with a seasoned auditor on staff, you get better auditing services overall. According to Jabbar and Jabbar [1], corporations' failure to disclose material information, their failure to hold key personnel accountable, and their use of a variety of accounting procedures to conceal wrongdoing have all contributed to global economic and financial crises. It has an effect on the financial records. For these factors, it is now essential to employ cutting-edge methods of management, accounting quality assurance, and judicial accounting data. After the global financial collapse of many firms and the widespread spread of financial and administrative corruption that plagued many institutions owing to deceptive financial statement accounting processes, the need for forensic accounting at the world and national levels became clear. The current audit methods are insufficient to detect cases of basic fraud and accounting manipulation because of the lack of professionalism in Iraq's accounting environment and the aggravation of cases of fraud and corruption due to the lack of external audits. Research hypotheses are formulated as follows, in light of the aforementioned theoretical underpinnings and contexts:

H1: implementing forensic accounting techniques has a positive and significant effect on the quality of independent financial audits in companies listed on the Tehran and Iraq Stock Exchanges.

H2: implementing forensic accounting techniques has a negative and significant effect on the number of independent financial audit report paragraphs in companies admitted to the Tehran and Iraq stock exchanges.

3. Research methodology

All companies listed on the Tehran Stock Exchange between 2014 and 2020, as well as all companies listed on the Iraq Stock Exchange between 2013 and 2020, make up the statistical population.

1. The financial year should end in either March or December so that data may be compared across periods.
2. It maintained its fiscal year throughout the time frame of the study.
3. All data required for the research should be available for the studied companies.
4. Maintaining a distance from banks, investment firms, and leasing corporations.

Based on the aforementioned criteria, 100 companies were chosen among those accepted by the Tehran Stock Exchange, while 35 were chosen by the Iraq Stock Exchange. Data was collected and cleaned up in Excel, and models were estimated using Eviews and Stata.

The next sections elaborate on the distinctions between dependent, independent, and control variables. Audit quality and audit report clauses are the focus of this study's dependent variables. Here we detail the procedure for taking the measurements.

The quality of audits has been evaluated in three dimensions.

a. Auditor's Reputation (AUDREP): To compute this index, the entire income of each auditing business is divided by the total income of the members of official accountants in Iran and Iraq (sample analyzed) [16].

b. Auditor Tenure (AUDTEN): The number of years in a row an auditor is in charge of auditing a certain organization [22]. This index takes into account the year in which the auditor began working for the organization being studied. For businesses that had an auditor during the research period but for which the information needed to determine the auditor's first year on the job was unavailable, the index is calculated using data from two years prior to the start of the research period.

Expertise in the relevant industry (AUDSPEC) of the auditor is represented by their percentage of the market share. This is how market share is determined:

To calculate this ratio, we take the square root of the industry's total book value of assets and divide it by the industry's total book value of all assets served by audit firms.

√((Total assets of all owners of the auditing firm in a certain industry)/(Total assets of all owners of that industry)) = market share of auditors of the auditor's specialty ……(1)

It equals the number of condition clauses of the independent auditor's report. The independent variable is judicial accounting. Forensic accountants have skills and abilities that a non-forensic accountant may lack due to passing specialized courses such as identification of fraudulent transactions, legal aspects of fraud, fraud investigation, and criminology and ethics. The independent variable is judicial accounting, which is virtual. Suppose the partner of the auditing institution is an official expert of the judiciary and the judiciary in the field of accounting and auditing. In that case, the number is considered as one and otherwise zero.

In this research, based on Hassoon et al. [16], control variables will be used as follows:

Company size (Size) is the natural logarithm of the total book value of the company's assets. Current Ratio (Cur) is the total current assets over current liabilities. Financial leverage (Lev) is the ratio of total liabilities to the book value of total assets. Profitability (Roa) is the ratio of net profit to the book value of total assets. Operating cash flow (CFO) is the ratio of operating cash flow to the book value of total assets.

To test the first hypothesis of the research, following the research of Hassoon et al. [16], a combined regression was used as described in relation (2)

$$AQ_{i,t} = \beta_0 + \beta_1 JAC_{i,t} + \beta_2 Size_{i,t} + \beta_3 Cur_{i,t} + \beta_4 Lev_{i,t} + \beta_5 Roa_{i,t} + \beta_6 Cfo_{i,t} + \varepsilon_{i,t} \quad \ldots\ldots(2)$$

Where:

AQ is the audit quality of company i in year t, which is calculated using three separate criteria, and each one is estimated separately.

JAC: judicial accounting of company i in year t
Size: The size of company i in year t
Cur: Current ratio of firm i in year t
Lev: financial leverage of company i in year t
Roa: profitability of company i in year t
CFO: cash flow operational of the company i in year t

To test the research hypothesis, the β1 coefficient is expected to be positive and significant at the 95% confidence level. To test the second hypothesis of the research, following the research of Hassoon et al. [16], combined regression will be used as described in relation (3).

$$Rem_{i,t} = \beta_0 + \beta_1 JAC_{i,t} + \beta_2 Size_{i,t} + \beta_3 Cur_{i,t} + \beta_4 Lev_{i,t} + \beta_5 Roa_{i,t} + \beta_6 Cfo_{i,t} + \varepsilon_{i,t} \quad \text{.....(3)}$$

Where:

rem: the number of condition clauses in the auditor's report of company i in year t

The rest of the variables are as described in relation (2).

To test the hypothesis, the β1 coefficient is expected to be positive and significant at the 95% confidence level. For the comparison between two countries, relationships 2 and 3 are estimated separately in each country, and to check the statistical difference, Paternoster et al.'s [23] statistic will be used.

4. Results and discussion

Table 1 displays descriptive data for selected variables in Iran. The number of observations in this table for each variable is 800. According to the data, the median auditor has been with the company for a total of 14.910 years, while the longest-serving auditor has been there for a total of 10. The longest service records are associated with quasi-government firms that are audited by the organization. The auditor's tenure has the highest dispersion, with a standard deviation of 1.595, while the auditor's reputation has the lowest, with a standard deviation of 0.2675.

Table 1. The Descriptive statistics of variables in Iran

Variable	Mean	Median	Maximum	Minimum	Standard deviation
Auditor's reputation	0.159	0.011	0.636	0.000	0.267
Auditor tenure	0.045	1.000	10.000	0.000	1.595
Auditor industry expertise	0.503	0.425	1.000	0.023	0.338
Size of the company	14.910	14.777	20.464	10.660	1.544
Current ratio	1.663	1.358	13.455	0.093	1.362
Financial Leverage	0.651	0.589	9.457	0.009	0.620
Profitability	0.112	0.096	0.681	-1.821	0.198
Operating cash flow	0.109	0.087	0.571	-0.508	0.143

Table 2 presents data on the descriptive statistics of Iraqi research variables. There are 280 entries in this table, one for each of the variables. The median and mean sizes of the company are 22.441 and 22.038 employees, respectively. Ten years is the maximum number of years an auditor can serve, with three years being the bare minimum. Profitability has a standard deviation of 0.1149, whereas the auditor's tenure has a standard deviation of 3.792, showing that the auditor's tenure has the greatest dispersion.

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Table 3 displays the findings of the first hypothesis test pertaining to Iran. To compare the integrated model and the panel model, we used the f-Limer test, and to compare the fixed effects model and the random effects model, we used the Hausman test. Limer and Hausman's F test indicates that for all three categories of audit quality in Iran, the model fits with panel data and fixed factors. It has been shown through testing of the first hypothesis that judicial accounting improves the standard of audits independently performed.

Table 3. The results of the first research hypothesis test for the country of Iran

$$AQ_{i,t} = \beta_0 + \beta_1 JAC_{i,t} + \beta_2 Size_{i,t} + \beta_3 Cur_{i,t} + \beta_4 Lev_{i,t} + \beta_5 Roa_{i,t} + \beta_6 Cfo_{i,t} + \varepsilon_{i,t}$$

Variable	Auditor's reputation		Auditing tenure		Auditor's industry expertise	
	Coefficient	Probability level	Coefficient	Probability level	Coefficient	Probability level
Intercept	0.149	0.000	0.302	0.000	1.451	0.000
JAC	-0.000	0.416	0.013	0.000	0.131	0.047
Size	0.000	0.215	0.003	0.731	0.029	0.071
Cur	0.000	0.731	-0.000	0.950	0.016	0.453
Lev	0.001	0.095	0.005	0.667	0.001	0.971
Roa	0.005	0.013	-0.037	0.182	0.234	0.193
Cfo	-0.001	0.282	-0.011	0.499	0.108	0.417
F fisher statistic	27.943	0.000	28.682	0.000	6.847	0.000
F-limer test	33.490	0.000	8.094	0.000	7.212	0.000
Hausman test	17.899	0.006	16.751	0.006	16.812	0.001
Likelihood Ratio Test	412.32	0.000	321.64	0.000	211.78	0.000
Durbin-Watson statistic		2.036	1.6393		1.964	
Coefficient of determination		0.455	0.377		0.509	

Forensic accountants have a likelihood level of less than 5% error for both the audit tenure and auditor expertise criterion, with a coefficient of 0.0134 and 0.1311 respectively. Therefore, it can be asserted with 95% confidence that forensic accountants positively impact audit quality. For the auditor's reputation criterion, the coefficient of the judicial accounting variable is more than 5%. Therefore, the auditor's standing in the community need not be worried about judicial accounting being used as a quality control measure.

In Iran, the significance of the entire connection (2) is indicated by the significance of Fisher's F statistic. Watson's statistic shows that there is no serial autocorrelation. The problem of heterogeneity in variance

amongst implementations of relation (2) is also highlighted by the importance of the right-exponential ratio statistic. The problem was solved using the generalized least squares technique.

Table 4 displays the findings from the analysis of the data used to assess the first research hypothesis pertaining to Iraq. The Hausman test differentiated between the fixed effects and random effects models, whereas the F-Limer test distinguished between the combination model and the panel effects model. Limer and Hausman's F-test indicates that the type of fit of the model in Iraq is for panel data with fixed effects, considering two parameters of audit quality, audit tenure and auditor knowledge in the industry. However, it still uses aggregated data for the criterion of auditor repute.

Table. 4. The results of the first research hypothesis test for the country of Iraq

$$AQ_{i,t} = \beta_0 + \beta_1 JAC_{i,t} + \beta_2 Size_{i,t} + \beta_3 Cur_{i,t} + \beta_4 Lev_{i,t} + \beta_5 Roa_{i,t} + \beta_6 Cfo_{i,t} + \varepsilon_{i,t}$$

Variable	Auditor's reputation		Auditing tenure		Auditor's industry expertise	
	Coefficient	Probability level	Coefficient	Probability level	Coefficient	Probability level
Intercept	-0.252	0.011	16.014	0.012	-20.328	0.014
JAC	0.125	0.000	-0.878	0.170	5.954	0.000
Size	0.011	0.009	-0.546	0.050	1.341	0.000
Cur	0.001	0.437	-0.221	0.001	-0.368	0.005
Lev	0.088	0.001	7.499	0.001	-5.503	0.077
Roa	-0.060	0.318	-3.353	0.067	2.073	0.522
Cfo	-0.087	0.068	2.255	0.148	5.724	0.052
F fisher statistic	48.308	0.000	30.729	0.000	15.520	0.000
F-limer test	1.417	0.219	4.910	0.000	3.155	0.007
Hausman test	Not required		28.019	0.000	21.294	0.001
Likelihood Ratio Test	652.21	0.000	589.87	0.000	517096	0.000
Durbin-Watson statistic		1.917	1.583		1.641	
Coefficient of determination		0.053	0.390		0.504	

Forensic accountants have a chance of less than 5% error for both the criteria of auditors' reputation and auditors' expertise, with a coefficient of 0.1259 and 5.954, respectively. Therefore, it can be asserted with 95% confidence that forensic accountants positively impact audit quality. There is also a likelihood of over 5% for the judicial accounting variable coefficient used in the audit tenure criterion. Therefore, the audit tenure criterion is unaffected by judicial accounting. Fisher's F statistic's significance for Iraq provides insight into the overall significance of the relationship (2). Watson's statistic shows that there is no serial autocorrelation. The problem of heterogeneity in variance amongst implementations of relation (2) is also highlighted by the importance of the right-exponential ratio statistic. The problem was solved using the generalized least squares technique. Table 5 displays the findings of Iran's second hypothesis test. The Hausman test differentiated between the fixed effects and random effects models, whereas the F-Limer test distinguished between the combination model and the panel effects model. Limer and Hausman's F test indicates that panel data with fixed effects best describes the situation in Iran. According to the second hypothesis, using forensic accounting reduces the amount of detail provided in the audit report.

Table 5. The results of the second research hypothesis test for the country of Iran

$$Rem_{i,t} = \beta_0 + \beta_1 JAC_{i,t} + \beta_2 Size_{i,t} + \beta_3 Cur_{i,t} + \beta_4 Lev_{i,t} + \beta_5 Roa_{i,t} + \beta_6 Cfo_{i,t} + \varepsilon_{i,t}$$

Variable	Coefficient	Standard error	t-statistic	Probability Level
Intercept	-2.014	0.711	-2.830	0.004
JAC	-0.555	0.395	-1.406	0.160
Size	1.109	0.046	23.988	0.000
Cur	0.131	0.048	2.725	0.006
Lev	0.956	0.139	6.876	0.000
Roa	4.038	0.511	7.902	0.000
Cfo	-0.372	0.172	-2.164	0.030
F fisher statistic	39.230			0.000
F-limer test	1.396			0.009
Hausman test	40.799			0.000
Likelihood Ratio Test	12.740			0.521
Durbin-Watson statistic	1.827			
Coefficient of determination	0.685			

Table 5 demonstrates that the probability of the judicial accounting variable is higher than the 5% error rate. So, at the confidence level of 95%, the judicial accounting technique has no substantial effect on the amount of paragraphs in the independent auditor's report in Iran. The significance of Fisher's F statistic reveals the relevance of the full connection (3) for the country of Iran. The lack of serial autocorrelation is seen in Watson's value. The absence of the heterogeneity of variance problem in the application of relation (3) is further indicated by the relevance of the right-exponential ratio statistic.

Table 6 displays the findings from the analysis of the data used to assess the second research hypothesis pertaining to Iraq. The Hausman test was used to compare the fixed effects and random effects models, and the F-Limer test was used to compare the integrated model and the panel model for model fit. Limer and Hausman's F test indicates that panel data with fixed effects best describes the situation in Iraq.

Table 6 demonstrates that the probability of the judicial accounting variable is higher than the 5% error rate. Therefore, the judicial accounting method in Iraq has no appreciable effect on the length of the independent auditor's report at the 95% confidence level. The alternative hypothesis is generally disproved.

Fisher's F statistic's significance for Iraq reveals the overall significance of relation 3. The lack of serial autocorrelation is seen in Watson's value. The problem of heterogeneity in variance amongst implementations of relation (3) is also highlighted by the importance of the right-exponential ratio statistic. The problem was solved using the generalized least squares technique.

Table 6. The results of the second research hypothesis test for the country of Iraq

$$Rem_{i,t} = \beta_0 + \beta_1 JAC_{i,t} + \beta_2 Size_{i,t} + \beta_3 Cur_{i,t} + \beta_4 Lev_{i,t} + \beta_5 Roa_{i,t} + \beta_6 Cfo_{i,t} + \varepsilon_{i,t}$$

Variable	Coefficient	Standard error	t-statistic	Probability Level
Intercept	-92.529	48.461	-1.909	0.062
JAC	3.200	15.854	0.201	0.840
Size	4.854	2.085	2.372	0.024
Cur	-0.556	0.292	-1.903	0.062

$$Rem_{i,t} = \beta_0 + \beta_1 JAC_{i,t} + \beta_2 Size_{i,t} + \beta_3 Cur_{i,t} + \beta_4 Lev_{i,t} + \beta_5 Roa_{i,t} + \beta_6 Cfo_{i,t} + \varepsilon_{i,t}$$

Variable	Coefficient	Standard error	t-statistic	Probability Level
Lev	75.407	5.314	14.190	0.000
Roa	-10.263	13.505	-0.759	0.450
Cfo	3.319	13.229	0.250	0.802
F fisher statistic	73.521			0.000
F-limer test	7.067			0.000
Hausman test	31.912			0.000
Likelihood Ratio Test	684.940			0.000
Durbin-Watson statistic	1.734			
Coefficient of determination	0.651			

5. Conclusions

Management of the firm or the shareholders is responsible for identifying fraud through the use of external experts and professionals in the field of fraud detection. Because of this leeway in applying accounting laws and practices, traditional accounting has been accused of failing to tackle problems of financial and administrative corruption. Legal situations involving financial corruption and fraud in financial statements necessitate the opinion of competent forensic accountants or experts, and investors, shareholders, and lenders are more suspicious of dishonesty in financial accounts. Independent auditing is a useful instrument in the realm of financial controls for stakeholders who want to verify the veracity of data. Ghalia still has a lot of doubts and concerns about the efficacy of this device. These parties have a vested interest in knowing what goes into conducting a high-quality audit. Therefore, the purpose of this article is to look into how judicial accounting impacts the effectiveness of external audits. One hundred enterprises listed on the Tehran Stock Exchange and thirty-five companies listed on the Iraq Stock Exchange were analyzed for this purpose.

The findings revealed that forensic accounting procedures improve audit quality, especially when the audit firm's partner is also a trained forensic accountant. Thus, an auditor's ability to comply with auditing standards to the greatest extent feasible is enhanced by the presence of forensic accounting expertise if the auditor of the auditing firm can fairly verify the absence of major distortions produced by fraud or error. Similar results were found by Tosun [14]. The results also demonstrated that the independent auditor's use of forensic accounting techniques had no appreciable impact on the audit report's occurrence of condition clauses. These results contradict those found by Tosun [14].

This study synthesizes existing research on the factors influencing audit quality. Also, it introduces judicial accounting as an influential component in one of the most essential factors in audit study. Stakeholders and investors, lawmakers, company managers, audit institution managers, auditors, and the committee for compiling university courses at the Ministry of Science, the Society of Certified Accountants, and the Center of Official Experts of Justice and the Judiciary can all benefit from this study's findings.

6. Recommendations

- Investigating the impact of forensic accounting techniques on the quality of financial reporting.
- Investigating the impact of forensic accounting techniques on independent audit fees.
- Investigating the impact of tax consultants on audit quality and the number of independent audit report paragraphs.

- Also, the main limitation of this research is related to the collection of information related to forensic accountants, which were excluded from the sample due to the unavailability of information on some companies.

Declaration of competing interest

The authors declare that they have no known financial or non-financial competing interests in any material discussed in this paper.

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