

## **The Impact of Internal Audit on the Quality of Insurance Performance: A Study on Some Insurance Companies in Iraq**

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### **Abstract**

*This study examines the extent to which the internal auditing affects the quality of insurance performance (QIP) of the Iraqi companies. It also detects whether the Iraqi companies have a good internal auditing system that keeps pace with global developments in improving their insurance performance. The research adopted the descriptive and analytical approach in identifying and treating its variables, which are internal audit as an independent variable with its dimensions (leadership, strategy, risk assessment), and QIP as a dependent variable. For the purpose of achieving the research objectives, three main hypotheses were formulated, which were tested on 280 financial and quality employees, numbering employees in insurance companies in Iraq. Data were processed using (SPSS V25) to extract the arithmetic mean, standard deviation, relative importance, Cronbach's alpha coefficient, Pearson correlation coefficient, simple and multiple linear regression coefficient as well as using Microsoft Excel 2010. The study revealed a statistically significant influence correlation between the quantitative and qualitative requirements in internal auditing on the quality of performance insurance in insurance companies in Iraq.*

**Keywords:** *Internal audit, Iraqi companies, quality of insurance performance.*

### **Introduction**

The distinguishing feature of our contemporary world is the rapid pace of change and dynamics, particularly in the fields of economics and behavioral sciences. This is primarily driven by the accelerated and successive advancements in technology, including production methods, communication and information systems, as well as the emergence of new organizational structures. These factors have intensified competition, necessitating prompt and informed decision-making to ensure the sustainability and competitive edge of organizations. To facilitate this, modern and accurate information systems are essential in enabling sound economic decision-making.

Accounting information plays a crucial role as it serves as evidence of an organization's interactions with both its internal and external environments. It is imperative for this information to possess credibility, accuracy, and provide a fair representation of the organization's financial position. Additionally, it should be responsive to the diverse needs of stakeholders, instilling confidence in their decision-making processes across various areas. To achieve these objectives, effective auditing tools are required to review and

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evaluate the success of internal auditing in delivering reliable and decision-worthy information to top management, ultimately contributing to the organization's goals.

Given the advancements in technology, auditors must adhere to established standards and strive for maximum efficiency in comprehending and assessing these systems. It is essential to implement preventive measures against various risks. Internal auditing serves as a cornerstone for ensuring the quality of performance within an economic institution.

#### Research problem

The insurance industry is a crucial economic sector that caters to a diverse customer base, including individuals and organizations. Recent technological advancements and scientific innovations have had a significant impact on enhancing insurance performance. It is imperative for organizations, regardless of their industry, to have a clear understanding of their current position. Given the insurance sector's openness to the world and the economic growth it has witnessed in recent years, this understanding is even more crucial. Therefore, this study aims to investigate the internal auditing practices of Iraqi insurance companies and assess the extent to which these practices impact insurance performance and reflect its quality. To refine the research problem further, the following questions will be addressed:

- 1- To what extent does internal auditing affect the insurance performance of the Iraqi companies?
- 2- Do the Iraqi companies have a good internal auditing system that keeps pace with global developments in improving their insurance performance?
- 3- What is the internal auditing system's ability to achieve a competitive advantage for the Iraqi insurance companies?

#### Research significance

The research aims to determine the benefits of research variables in general organizations and specifically in Iraqi insurance companies. This will contribute to their development and practical application, particularly in adopting internal auditing with its dimensions (leadership, strategy, risk assessment) and enhancing insurance performance.

#### Research objectives

The research aims to assess the impact of internal auditing on the QIP. This can be summarized as follows:

1. Understanding the current state of internal auditing in the Iraqi companies,
2. Emphasizing the need for comprehensive internal auditing within Iraqi insurance institutions,
3. Investigating the relationship between internal auditing and insurance performance in the Iraqi companies through data analysis obtained from questionnaires.

#### Research hypotheses

The preliminary research outlines were developed based on the objective causal relationships between the research variables in the proposed theoretical model. To support these relationships and achieve the research objectives, the researcher formulated a set of hypotheses that scientifically explain these relationships and align with the main research goal. These hypotheses provide initial solutions to the research problem, which will be analyzed, measured, and statistically tested in the practical aspect to obtain meaningful results. These hypotheses are not random guesses or interpretations but insights derived from the information that shaped the research problem. The hypotheses are as follows:

1. There is no statistically significant correlation between internal auditing and insurance performance.
2. There is no statistically significant simple impact correlation between internal auditing and insurance performance.
3. There is no statistically significant multiple impact correlation between internal auditing and insurance performance.

## Literature Review

### Internal audit

The expansion of economic activities, growth of institutions, and separation of ownership from management has created a need for control systems to help organizations function efficiently. Each institution has specific objectives to achieve, which primarily affect customers and the institution itself. However, these objectives also affect employees, as the institution is under the scrutiny of various stakeholders with different and sometimes conflicting interests. Therefore, it is crucial to provide these stakeholders with necessary information about the institution's activities and results to gain their trust. To ensure credibility, institutions must undergo objective scrutiny by internal auditors. The evolution of auditing in the financial and accounting field highlights its importance. Auditing is no longer limited to financial auditing but has expanded to include governance for all functions performed by the institution, significantly contributing to improving management.

Researchers presented several definitions of internal auditing. It is defined as the process of gathering and evaluating evidence, identifying and preparing reports on the extent of compliance between information and predetermined standards, and the audit must be conducted by an independent and neutral technical person (Shishini, 2007). Furthermore, Amin (2000) views it as examining the internal control systems, data, documents, computers, and records of the institution at the end of a known period of time, and assessing its perception of the results of its operations, whether profit or loss, during that period. Furthermore, it has also been defined as an activity that is applied independently in accordance with interrelated procedural standards and examination for the purpose of evaluation, the suitability and degree of confidence in the functioning of all parts of the activity within the institution, according to the specified standards (Salhi, 2016). Finally, the American Institute of Certified Public Accountants defines auditing as a systematic and organized process of collecting and evaluating evidence and indications objectively, which relate to the results of economic activities and events, in order to determine the extent of conformity and compliance with established standards, and to communicate the audit findings to interested parties (Al-Qadi & Dahdouh, 1999).

### Importance of internal audit

Although internal auditing has advanced, it is not realistic to expect accountants to produce completely accurate financial statements. Personal judgments and estimates can impact specific elements of the financial statements or cash flows, leading to variations based on these judgments and estimates. Therefore, the benefit of striving for high accuracy is often minimal, even with a small margin of error. Accountants follow the principle of materiality, which involves giving greater attention to matters that significantly impact the financial statements when making accounting decisions. Auditors must also ensure that the results expressed in the report fall within an acceptable range. However, there is no precise standard for determining the relative importance of a particular decision. As a result, the rule of thumb is that an item is considered important if an error in it would mislead the user of the information provided in the financial statements (Al-Qadi & Dahdouh, 1999).

### Types of audits

- a) Financial statement auditing involves an independent and experienced person examining financial statements prepared by management and directed to users outside the organization. The objective is to express an opinion on whether the financial data presents a fair and truthful picture of the institution's performance and financial position (Boutin, 2005).
- b) Full auditing gives the auditor the freedom to set an undefined framework for the work performed, with no restrictions imposed by management on the scope or area of work. The auditor uses their personal judgment to determine the level of detail needed in their work and examines restrictions, documents, and records to arrive at a technical, neutral, and objective opinion on the accuracy of the financial statements as a whole (Nour, 1992).
- c) Optional auditing is not mandatory and is suitable for individual institutions and companies. Audit services are used to audit the accounts of the institution and adopt final financial statements to ensure the accuracy of accounting and financial information used as a basis for determining the rights of partners or shareholders. In the case of individual institutions, this audit helps to increase confidence in the financial information presented to external parties (Saraya, 2007).

### Quality of insurance performance

The world has been witnessing a multitude of innovations, transformations, and advancements, particularly in the field of economics. The rise in the number of institutions across various sectors and the liberalization of international trade have intensified competition among producers. This has compelled them to seek ways to retain their market share and gain a competitive edge, both domestically and globally. Consequently, quality has emerged as a strategic tool for attaining a competitive advantage and market leadership. In the face of challenges posed by globalization, it has become essential for modern companies and organizations, regardless of whether they operate in the manufacturing, service, or non-profit sectors, to embrace quality practices. Prioritizing quality is crucial for survival in a competitive environment. Adopting Total Quality Management (TQM) principles and pursuing the international organization for standardization (ISO) certification are key pathways towards achieving this goal.

Crosby (1982) sees quality as conformance to specifications and believes that quality is the responsibility of everyone. He states that customer wants are the basis for design. On the other hand, Deming (1981) views quality as meeting the current and future needs of the customer. Likewise, the ISO defines quality as the totality of features and characteristics of a product or service that bear on its ability to satisfy a specific need (Alam, 2010). Furthermore, the American National Standards Institute (ANSI) defines quality as a combination of characteristics and features of a product or service that make it capable of meeting specific needs (Abdel Nour & Mahfouz, 2010).

Finally, the British Standards Institution (BSI) defines quality as a combination of features, characteristics, and properties of a product or service that satisfies and fulfills urgent and necessary requirements. It is the proper performance of work that enables the customer to obtain their requirements (Abu Al-Nasr, 2008).

### The importance of QIP

There are various factors and motivations that drive organizations to prioritize and strive for quality. The need for quality can be observed in the following areas:

#### Financial necessity

Defects and errors in product quality result in significant costs for both the organization and consumers. These costs include repairing defective products and labor expenses.

Studies have shown that in industrialized countries in Europe, more than 10% of raw materials and manufactured products are wasted, leading to the squandering of resources, energy, and work time. Quality issues represent a waste that leads to increased costs, reduced profits, and diminished competitiveness for organizations.

**Commercial necessity**

Quality is the cornerstone of competitiveness, particularly as industries face challenges such as escalating energy and raw material prices, competition from foreign products, international market requirements, and the urgent need to expand exports. These factors place organizations in a critical position. From the consumer's perspective, this competition translates into a better quality-to-price ratio while ensuring timely delivery.

**Technological necessity**

Continuous advancements in technology drive the development of high-performance products. Technological improvements enable increased product output and contribute to the better adoption and enhancement of product characteristics. Quality plays a crucial role in effectively managing technologies by standardizing manufacturing methods, improving processes, and implementing quality control measures (Al-Mahmoud, 2004).

**Research methodology**

This study collect data from 280 employees within the management levels (general manager, department manager, section manager, unit manager, senior employee) in Iraqi insurance companies. The study took place during the time period that the researcher took to prepare the theoretical aspect of the current research and build a scale in light of the main research variables and its sub-dimensions. A questionnaire was formed to collect data. It then was sent experts and arbitrators, and making necessary modifications to make the questionnaire ready to measure the current research variables during the year 2023.

**Hypothetical model**

For the purpose of addressing the research problem, the researcher adopted a hypothetical model as shown in Figure 1, which shows the correlation and influence relationships between the research variables.

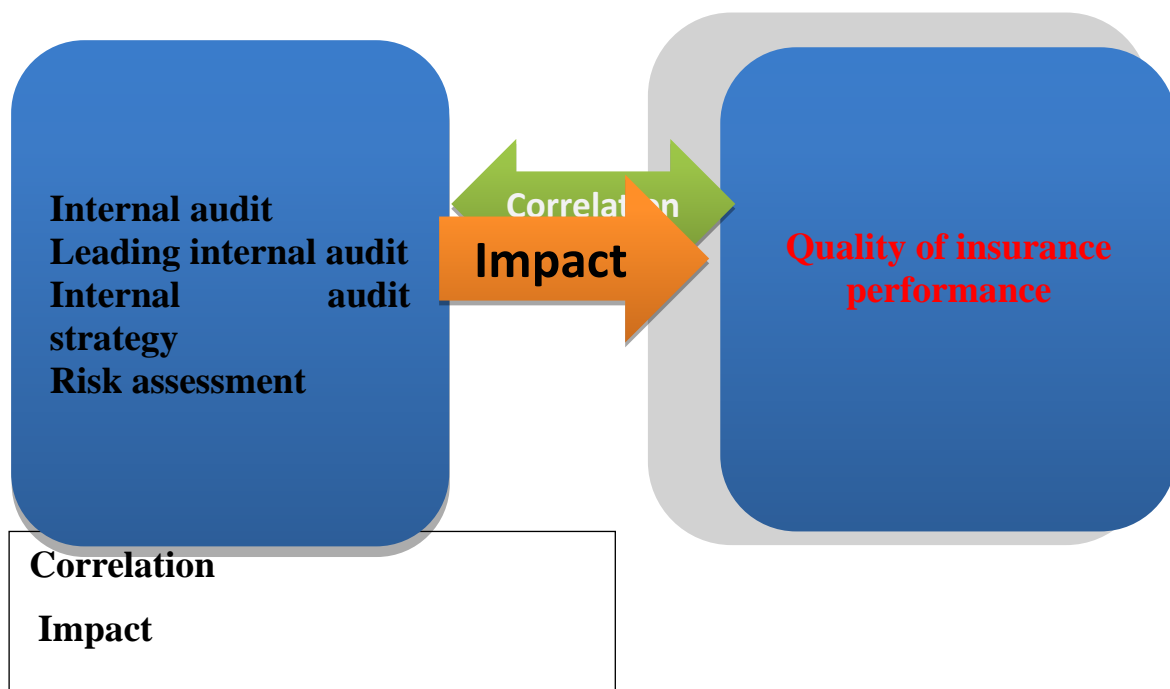


Figure 1. Hypothetical framework of the research

This module focuses on assessing and testing the quality of data for statistical analysis. It includes evaluating the normal distribution of the data, assessing the reliability of the measurement tool using Cronbach's alpha coefficient, and examining the relationships and effects, both simple and multiple.

Reliability of the tool is measured. A reliable tool is one that consistently produces scores that accurately represent the variable being measured. Cronbach's alpha coefficient is commonly used to assess internal consistency. It ranges from zero to one, with zero indicating no reliability (an unreliable tool) and one indicating complete reliability (a reliable tool). A high alpha value suggests that the scale items are consistent, indicating good reliability. A commonly accepted threshold is 0.60 and above. The results of the reliability test are presented in Table 1.

Table 1. Indicators of reliability results between components of the questionnaire

Variables	Cronbach's alpha	Interpretation
Internal audit	0.838	High
Quality of insurance performance	0.806	High
Total	0.926	High

The results show that the internal audit variable had a Cronbach's alpha coefficient of 0.838, while the QIP variable had a coefficient of 0.806. Moreover, the total research reliability value was 0.926, which is higher than the acceptable ratio of 0.60. These findings suggest that both variables have adequate internal consistency, and the research questionnaire has a good level of stability.

## Results

Testing the correlation between internal audit and QIP

The first hypothesis tested the main correlation between the dimensions of the internal audit variable and the QIP variable, as shown in Table 2. The hypothesis states that there is no statistically significant correlation between internal audit and QIP.

Table 2 shows that the correlation coefficient between internal audit and QIP was 0.879, at a significance level of 0.000, which is lower than the significance level of 0.01. The results indicate a strong positive correlation, supporting the rejection of the null hypothesis and the acceptance of the alternative hypothesis. This means that there is a statistically significant relationship between the variables of internal audit and QIP. The researchers attribute this to the fact that the insurance companies in the study focus on improving themselves through the use of modern internal auditing practices, which in turn reflects on their performance.

Table 2. The correlation analysis between the dimensions of internal audit and QIP

Variables	Success	Creativity	Support and motivation	QIP
Leading internal audit	.747**	.794**	.685**	.812**
Internal audit strategy	.694**	.727**	.717**	.780**
Risk assessment	.730**	.677**	.707**	.768**
internal audit	.807**	.820**	.784**	.879**

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Testing the simple regression hypothesis

Table 3 shows results of the main hypothesis (H1) which tests the impact between the dimensions of internal audit and the QIP. The hypothesis assumes that there is no significant statistical correlation between the internal audit and the QIP. However, the statistical analysis results for the first main hypothesis reveal that the calculated F value (940.606) is much greater than the tabulated F value (6.72) at a significance level of 0.01, with degrees of freedom (1,278). This suggests that there is a positive and significant correlation between internal audit and QIP, indicating that an increased focus on internal audit leads to better QIP. Therefore, the alternative hypothesis which states that there is indeed a statistically significant relationship between internal audit governance and insurance performance quality has been accepted as a result of the statistical analysis. This finding implies that internal audit has a clear impact on insurance performance quality.

Furthermore, the adjusted coefficient of determination (Adjusted R<sup>2</sup>) value of 0.772 indicates that internal audit explains 77.2% of the variations in QIP, while other variables not included in the research model account for the remaining 22.8%. The estimated coefficient of Skewness ( $\beta$ ) value of 0.867 is statistically significant, with a calculated t-value of 30.669, which is much larger than the tabulated t-value at a significance level of 1%. The constant term ( $\alpha$ ) in the equation also has a statistically significant value of 0.588, with a calculated t-value of 5.218, greater than the tabulated t-value at a significance level of 1%. These results suggest that internal audit practices used in the studied Iraqi companies contribute significantly to achieving excellence in QIP.

Table 3. The effect of the internal audit (X) on the QIP (Y)

Dependent variable	Internal audit X		(R <sup>2</sup> )	(F)	Calculated T	Sig	Decision
	( $\alpha$ )	( $\beta$ )					
QIP Y	Internal audit X	0.588	0.772	940.606	5.218	0.000	Accepting the alternative
		0.867			30.669		
The tabulated (F) value is 6.72, the tabulated (t) value is 2.35, and the sample size is 279.							
Accepted null hypotheses = 0							
Accepted alternative hypotheses = 1							

Testing the multiple regression hypothesis

The study conducted a multiple regression analysis (MPA) to examine the relationship between the internal audit variable (with its dimensions combined) and the QIP variable, as presented in Table 4. The hypothesis stated that there is no statistically significant multiple regression correlation between the internal audit variable (with its dimensions combined) and QIP. Table 4 displays the statistical analysis results for the first main multiple regression hypothesis. The calculated F-value (322.439) is higher than the tabulated F-value (3.84) at a significance level of 0.01, with degrees of freedom (3,276). This shows that there is a significant multiple regression relationship between the internal audit with its dimensions combined, and the QIP.

A positive correlation is assigned as the result results reveal between internal audit with its dimensions combined and QIP. This suggests that prioritizing all dimensions of internal audit simultaneously leads to better improvement in QIP. Therefore, this leads to accept the alternative hypothesis which stating that there is a statistically significant

multiple regression correlation between internal audit with its dimensions combined and QIP. This result confirms that internal audit with its dimensions combined positively impacts overall QIP.

Moreover, the adjusted coefficient of determination ( $R^2$ ) value of 0.778 indicates that internal audit with its dimensions combined explains 77.8% of the QIP variations. The remaining 22.2% may be attributed to other variables that were not included in the research model.

The beta coefficients ( $\beta$ ) for each variable are also shown in Table 4: leadership of internal audit (0.373), internal audit strategy (0.191), and risk assessment (0.307). These coefficients are statistically significant as their corresponding t-values (10.493, 4.677, 7.240) are greater than the critical t-value at a significance level of 1% or 5%. The constant term ( $\alpha$ ) in the equation has a value of 0.568. Overall, these findings suggest that internal audit with its dimensions combined has a significant and substantial impact on QIP.

Table 4. The impact of internal audit dimensions (X) combined on the QIP (Y)

Internal audit X	Quality of insurance performance Y						
	Regression coefficients	Calculated t	Sig	$R^2$	Calculated F	Sig	Decision
Constant term	.568	4.973	.000	0.778	322.439	0.000	Accepting the hypothesis
Internal Audit Leadership X1	.373	10.493	.000				
Internal Audit Strategy X2	.191	4.677	.000				
Risk assessment x3	.307	7.240	.000				

Tabular (t) value = 2.35, 1.65/// Tabular (F) value = 3.84 /// Sample size = 279 rephrase.

## Conclusions and Recommendations

### Conclusions

1. The lack of independence for internal auditors hampers their ability to efficiently achieve the objectives of the auditing process in the financial and operational aspects of insurance companies.
2. The current information system does not support the rapid development and diversification of services that meet the needs of both existing and potential beneficiaries.
3. The internal audit manager has direct communication channels with the board of directors and the audit committee.
4. It is important to ensure the attainment of detailed objectives in alignment with the overall goals of the insurance companies.
5. Obtaining internal auditors' reports regarding the effectiveness of internal control is essential.
6. Senior management in insurance companies consistently works on developing technological resources to enhance the effectiveness and efficiency of accounting information systems.



7. There are clear and methodological steps that contribute to innovation and the development of information systems, providing a roadmap for generating ideas.
8. Responsibilities within the team are assigned based on individual expertise and capabilities.

#### Recommendations

1. Providing independency to the internal auditor enables them to achieve the objectives of the auditing process with better efficiency in the financial and operational aspects of insurance companies.
2. Making the information system used capable of rapid development and diversification of services that cater to the needs of both current and potential beneficiaries.
3. Empowering the internal audit manager to express their opinion without obstacles to the audit committee or board of directors when they identify risks that impact goal achievement.
4. Developing audit policies, systems, and procedures based on a thorough risk assessment specific to insurance companies.
5. Studying and understanding the initial assessment of control risks conducted by internal auditors for each process-related objective.
6. Utilizing technological means in managing information systems to provide accurate and timely accounting information.
7. Incorporating user and beneficiary feedback in the process of developing accounting information systems for insurance companies.
8. Allocating awards for innovative and new ideas within the organization and supporting their dissemination and implementation.

#### References

- Abdel Nour, G. & Mahfouz, A. (2010). The impact of total quality management on the performance of institutions, (Unpublished bachelor's thesis). University of Ouargla.
- Abu Al-Nasr, M. (2008). Basics of total quality management. Egypt: Dar Al-Fajr for Publishing and Distribution.
- Al-Alam, F. A. Y. (2010). Total quality management system and international standards. Amman: Dar Al-Yazouri for Publishing and Distribution.
- Al-Mahmoud, N. M. A. (2004). The relationship between total quality management and the areas of human resources management and their impact on performance. (Unpublished master's thesis). Jordan: Yarmouk University.
- Al-Qadi, H., & Dahdouh, H. (1999). Fundamentals of auditing according to international standards. Amman: Dar Al-Rawaq for Publishing and Distribution.
- Amin, K. (2000). The science of auditing. Amman: Dar Wael for Publishing and Distribution.
- Boutin, M. (2005). Auditing and account control from theory to application, (6th Edition). Algeria: Office of University Publications.
- Crosby, P. B. (1982). One point of view: quality assurance: the management of quality. *Research Management*, 25(4), 10-12.
- Deming, W. E. (1981). Improvement of quality and productivity through action by management. *National productivity review*, 1(1), 12-22.
- Nour, A. (1992). Auditing accounts from theoretical and scientific points of view. Alexandria: University Youth Foundation.

- Salhi, M. Y. (2016). The impact of internal auditing as a mechanism of governance for the development of the enterprise's competitiveness: A study at SAIDAL during the period 2010–2015 (Unpublished PhD Dissertation). Mohamed Khider-Biskra University.
- Saraya, M. A. (2007). Principles and rules of review and comprehensive auditing. Alexandria Modern University Office.
- Shishini, H. M. (2007). Fundamentals of auditing: a contemporary approach. Modern Library for Publishing and Distribution.