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Research Article

The role of artificial intelligence in supporting internal auditors to reduce financial and administrative corruption

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ABSTRACT

This study explores the role of Artificial Intelligence (AI) in enhancing the effectiveness of internal auditing to reduce financial and administrative corruption. In the digital era, AI has emerged as a transformative tool capable of analyzing vast datasets, detecting anomalies, and supporting evidence-based decision-making—thereby strengthening institutional oversight and governance. The research examines three key dimensions through which AI can influence audit performance: independence and objectivity, competence and professional capabilities, and methodology and work procedures. A structured questionnaire was distributed to internal auditors across selected institutions, and data were analyzed using SPSS to assess reliability (Cronbach's α) and inter-dimensional correlations.

Results revealed that AI significantly enhances auditors' independence (Mean = 3.91, α = 0.817), competence (Mean = 3.86, α = 0.724), and methodological efficiency (Mean = 3.78, α = 0.780). Moderate positive correlations were found among these dimensions ($r = 0.221–0.364$, $p < 0.05$), indicating that AI's impact operates through interconnected improvements in professional practice. These findings confirm that AI supports a proactive, data-driven auditing environment that can improve transparency and early detection of irregularities.

The study concludes that AI integration is not merely a technical upgrade but a governance necessity that empowers internal auditors to effectively mitigate corruption risks. It recommends developing AI-based audit infrastructures, continuous auditor training, and regulatory frameworks to ensure ethical and effective AI use in auditing.

KEYWORDS: Artificial intelligence; internal auditing; financial corruption; administrative corruption; digital auditing; audit independence; professional competence; methodology; institutional governance; Iraq

INTRODUCTION

The world today is witnessing rapid transformations across various fields of life, driven by unprecedented technological advancements—foremost among them is Artificial Intelligence (AI), which has become a cornerstone of digital transformation and institutional innovation. AI is one of the most effective technological tools creating qualitative change across multiple domains, including accounting and internal auditing, due to its remarkable ability to analyze big data and detect irregular patterns that may indicate manipulation or financial and administrative corruption. Given the complexity of the regulatory environment and the growing volume of data, there is an urgent need to modernize internal auditing tools and

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methodologies in alignment with the digital era. In this context, AI emerges as a strategic enabler that empowers internal auditors to enhance audit quality and efficiency.

The internal auditing profession plays a crucial role within the framework of corporate governance, ensuring compliance with laws and regulations, assessing the efficiency and effectiveness of internal control systems, and mitigating operational and financial risks. However, the traditional tools used in auditing are no longer sufficient to handle the massive data volumes and operational complexity faced by modern institutions, which undermines auditors' ability to detect irregularities and deviations in a timely manner. Therefore, AI becomes a powerful instrument that enables auditors to enhance audit quality through predictive analytics, pattern recognition, and natural language processing (NLP)—all of which contribute to improving the auditor's capacity to identify and prevent corruption before it escalates.

Financial and administrative corruption has become one of the most critical challenges facing institutions and governments alike, as it weakens public trust, wastes resources, and hinders sustainable development. Experience has shown that traditional oversight mechanisms alone are no longer sufficient to curb this phenomenon, which calls for innovative and intelligent solutions capable of predicting and halting corrupt behavior before it evolves into financial or legal crises. In this regard, AI technologies offer tremendous potential for strengthening proactive and intelligent control systems by detecting atypical transactions, analyzing employee behavior and financial operations, and comparing data across time and departments to uncover anomalies.

Accordingly, this study aims to highlight the significance of integrating AI technologies into internal auditing functions and to explore how these technologies can serve as an effective tool for combating financial and administrative corruption. The study also seeks to identify the challenges internal auditors may face in adopting AI-based systems, as well as the opportunities for enhancing their oversight role. Through this research, we aim to provide a deeper understanding of the synergistic relationship between AI and internal auditing, while emphasizing the expected impact on the effectiveness of institutional governance and control.

RESEARCH METHODOLOGY AND LITERATURE REVIEW

PREVIOUS STUDIES

In recent years, there has been a significant increase in the number of studies examining the role of artificial intelligence (AI) across various fields, including internal auditing, as interest grows in leveraging modern technologies to enhance the efficiency and effectiveness of control processes. These studies have approached AI from multiple perspectives—focusing either on the technologies applied in auditing or on their potential impact on audit quality and fraud detection.

Kokina and Davenport (2017) highlighted that AI technologies—particularly *Machine Learning (ML)*—play a crucial role in automating financial auditing procedures, thereby improving the ability to detect unusual patterns and potential fraud in financial data. The study also found that AI saves auditors considerable time and effort, allowing them to focus more on high-level analytical tasks.

Issa, Sun, and Vasarhelyi (2016) explored the role of AI in supporting decision-making among internal auditors through intelligent decision-support systems and predictive analytics. Their findings indicated that AI enhances auditors' ability to assess risks and identify potential control weaknesses before they escalate. The study also emphasized that organizations implementing AI in their internal auditing became more resilient to financial corruption.

Similarly, Yoon, Hoogduin, and Zhang (2015) examined the effectiveness of AI tools in improving data reliability and analyzing large-scale financial transactions. Their results demonstrated that using

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technologies such as neural networks and intelligent algorithms reduces errors and enhances the quality of control reports, which positively affects audit outcomes.

On the other hand, Fernandez and Aman (2021) cautioned against certain challenges associated with AI use, including algorithmic bias and lack of transparency in interpreting outputs, which could hinder auditors in complex regulatory environments. They recommended equipping auditors with adequate training on AI systems and developing clear regulatory frameworks to govern their use in auditing.

In the Arab context, research remains relatively limited. Nonetheless, Al-Anazi (2020) provided an insightful review of AI adoption within Gulf institutions, noting encouraging signs of progress despite ongoing challenges related to infrastructure readiness and the availability of qualified personnel.

Overall, the reviewed literature reflects a broad academic consensus on the importance of AI in supporting the internal audit function—particularly in detecting financial and administrative corruption and improving institutional oversight quality. However, effective AI utilization requires organizational awareness, proper training, and continuous updates to control systems to fully harness its benefits. The scarcity of Arabic studies further underscores the need for more research in this domain, especially within distinct regulatory and institutional environments.

SIGNIFICANCE OF THE STUDY

The significance of this study arises from the growing challenges faced by institutions amid escalating financial and administrative corruption and the increasing complexity of accounting and managerial operations. In a world characterized by data intensity and rapid transactions, traditional internal auditing methods are no longer sufficient for effectively detecting irregularities and misconduct.

Hence, there is an urgent need for modern tools and technologies capable of keeping pace with this transformation—and AI stands at the forefront of such tools.

This study is significant because it explores the potential of AI to enhance the internal auditor's efficiency and empower them to perform their oversight role more effectively—through intelligent data analytics, risk prediction, and anomaly detection that may indicate corruption. Moreover, it highlights the opportunity for organizations, particularly in the Arab world, to understand and apply AI within internal control functions, thereby promoting transparency and accountability.

Additionally, this study fills a gap in Arabic academic literature by providing a foundational knowledge base for future applied research in AI-assisted auditing.

RESEARCH PROBLEM

Despite significant advancements in AI technologies, many institutions continue to rely heavily on traditional internal auditing methods, which weakens their ability to detect financial and administrative corruption at an early stage. With the continuous growth in data volume and transaction complexity, it becomes increasingly difficult for internal auditors to use conventional tools effectively.

The study problem can be summarized in the following central question:

To what extent can artificial intelligence support internal auditors in reducing financial and administrative corruption within institutions?

This problem is particularly relevant in light of the global shift toward digitization and smart governance.

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RESEARCH HYPOTHESIS

This study is based on the main hypothesis that artificial intelligence positively influences the performance of internal audit teams, thereby enhancing their ability to prevent financial and administrative corruption.

From this main hypothesis, three sub-hypotheses are derived:

1. First Hypothesis: Artificial intelligence within internal audit teams enhances independence and objectivity, thereby improving their ability to detect corruption.
2. Second Hypothesis: Artificial intelligence within internal audit teams strengthens competence and professional capabilities, thereby improving their ability to detect corruption.
3. Third Hypothesis: Artificial intelligence within internal audit teams enhances methodology and work procedures, thereby improving their ability to detect corruption.

RESEARCH OBJECTIVES

This study aims to highlight the importance of integrating AI technologies into internal auditing as part of broader efforts to combat financial and administrative corruption and strengthen institutional control systems. The main objectives are as follows:

1. To analyze the potential role of AI in advancing internal auditing methods by examining widely used technologies such as machine learning, big data analytics, and natural language processing.
2. To explore the effectiveness of AI in supporting internal auditors in detecting irregularities and illegal activities, and in strengthening their ability to identify potential risks early.
3. To identify the challenges and obstacles institutions may face when implementing AI in auditing, including shortages of technical expertise and lack of regulatory frameworks.
4. To provide practical recommendations for improving digital infrastructure and training auditors to use AI tools efficiently.

By achieving these objectives, the study seeks to contribute to the development of a smart and effective internal control system that promotes greater institutional transparency and sustainability.

RESEARCH GAP AND ORIGINALITY

Despite growing global interest in AI and its applications in accounting and auditing, studies directly addressing the link between AI and internal auditing—particularly within the context of combating financial and administrative corruption—remain limited, especially in Arab environments.

Most prior research has focused either on the technical aspects of AI or its use in other domains such as financial analysis or strategic planning, without delving deeply into how AI can empower internal auditors to perform their duties effectively in combating institutional corruption.

This research gap lies in the lack of both applied and theoretical studies investigating how AI can practically assist internal auditors in detecting anomalies, improving proactive control quality, and generating data-driven evidence. Moreover, there is a notable shortage of literature connecting AI with institutional integrity in the Arab context, which makes this study particularly relevant.

The originality of this study lies in its practical integration between the technological dimension (AI) and the control dimension (internal auditing) within a framework focused on anti-corruption. This approach gives

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the study an applied nature aimed at addressing a real and pressing institutional challenge faced by many organizations.

THEORETICAL FRAMEWORK

ARTIFICIAL INTELLIGENCE (AI)

Artificial intelligence functions as a system for documenting human expertise and providing multiple alternatives that may reduce reliance on human experts, while also eliminating the limitations of fatigue and boredom inherent in human capacities (Scherer, 2016, p.56).

According to Al-Anazi (2022, p.51), AI possesses several distinctive characteristics, including the ability to deal with complex and difficult situations, ease of application and knowledge acquisition, and the capacity to manage ambiguous conditions in the absence of sufficient information. AI systems can adapt to new circumstances and discover solutions through trial-and-error processes, while reusing and applying past experiences in new situations. Moreover, AI depends on prior knowledge to understand, learn, evaluate, and solve problems even when information is incomplete.

One of the key objectives of AI is to understand the nature of human intelligence by developing computer programs capable of simulating intelligent and high-quality human behaviors. This represents a fundamental turning point that transcends traditional information technology, as it implies the ability of a computer program to make decisions or solve problems in specific contexts. The high processing speed of computers is one of the main reasons for their widespread use in this field. Consequently, AI can be described as a behavioral process characterized by features that enable computer programs to simulate human work patterns, behaviors, and cognitive abilities, including reasoning, learning, and interaction (Hassan, 2020, p.224).

AI systems typically comprise several main components (Nedeva, 2004, p.22):

1. Knowledge Base: This includes databases, analytical processing over the internet, and data modification. It also involves integrated management information systems that manage user interactions, input data into data warehouses, and perform necessary analytical processing.
2. User Interface: The user interface is a key element influencing user satisfaction and consists of both hardware and software. Its design and usability directly affect the effort required by users to input data and interpret system outputs effectively.
3. Search Engine: A collection of programs designed to identify the type and location of required information and data within the knowledge base. It also generates new insights by applying coordinated analytical and processing strategies.

INTERNAL AUDITING

The auditing process is an objective examination and evaluation of evidence to form an independent opinion on the reliability of financial and non-financial statements. This process is conducted by a qualified and impartial professional who is not involved in preparing the data or directly benefiting from it. The auditor issues a detailed report to increase the credibility of the information, thereby enhancing its usefulness and reliability (Al-Dhanbiyat, 2010, p.43).

Internal auditing is defined as an independent unit within the organization’s structure, considered one of the most effective internal control mechanisms. It is established by management to serve and assure itself that internal control measures are adequately designed, implemented, and functioning effectively. The function involves ongoing verification of accounting and statistical data accuracy, safeguarding of assets, and

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ensuring employee compliance with established policies, plans, and administrative procedures (Iraq Federal Board of Supreme Audit, 2015, p.6).

Researchers, practitioners, and professional organizations have paid increasing attention to the internal control system and its operational efficiency. As organizations grew larger, employing thousands of individuals and operating across dispersed locations with diverse transactions, the need arose to evaluate internal control systems and identify weaknesses that management could no longer monitor directly. Since external auditors could not continuously perform such evaluations throughout the year, the internal audit function emerged to fulfill this gap (Stettler, 1977, p.81).

Internal auditing has gained global significance, especially with the rise of financial fraud incidents worldwide. Studies and statistics indicate that organizations lose approximately 6% of their annual income due to fraud and misuse of resources. Many of these losses could be prevented through effective internal audit departments (Ahmed Mostafa, 2012, p.5).

FINANCIAL AND ADMINISTRATIVE CORRUPTION

There is an international consensus on the definition of corruption as provided by Transparency International, which describes it as *"any act involving the misuse of public office for personal or group gain"* (Shamiya, 2008, p.17).

Financial corruption refers to fraud in accounting and auditing practices, including manipulation and embezzlement, characterized by intent and deliberate concealment of facts to obtain personal benefits or mislead others (Mohammed, 2008, p.42). It can also be defined as a set of negative violations committed by an employee while handling financial transactions, whether related to public interest or dealings with citizens.

Administrative corruption, on the other hand, is the exploitation of public office and resources for personal or group gain in violation of laws or ethical standards. This may occur due to individual motives or external pressures, and can manifest in both individual and collective behaviors (Hamriya, 2018, p.279).

Corruption takes various forms, starting with the abuse of public authority for personal gain, including bribery, embezzlement, extortion, favoritism, and fraud, all of which cause societal and economic harm. The key manifestations include:

- The degradation of moral values and the spread of crime and unethical behavior in society.
- Negligence in applying professional performance standards and declining commitment to the public interest.
- Feelings of injustice, frustration, and lack of belonging, leading to social resentment, poverty, and unemployment.
- Inability to attract foreign investment and increased capital flight due to lack of trust in the regulatory environment.

In summary, financial and administrative corruption undermines institutional integrity and economic stability, making the role of internal auditing supported by artificial intelligence increasingly vital in establishing transparency, accountability, and good governance.

THE APPLIED ASPECT

Reliability (Cronbach's Alpha):

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- Independence and Objectivity (A): α = 0.817 → *Very Good*
- Competence and Capabilities (B): α = 0.724 → *Good*
- Methodology and Procedures (C): α = 0.780 → *Very Good*

Dimension Means (Scale Range: 1–5):

- Independence and Objectivity: 3.91 → *Positive Tendency*
- Competence and Capabilities: 3.86
- Methodology and Procedures: 3.78

Table 1. Descriptive statistics of items

Item	Mean	Std. Dev.	Min	Max
A1	3.82	1.03	1	5
A2	3.99	0.84	2	5
A3	2.08	1.04	1	4
B1	3.81	0.92	2	5
B2	3.78	0.99	1	5
B3	2.01	1.01	1	5
C1	3.7	1.01	1	5
C2	3.78	0.99	1	5
C3	2.15	1	1	4

Source: Prepared by the researchers based on SPSS analysis.

Items supporting the positive role of AI scored above the neutral midpoint (3):

A1 = 3.82 (SD = 1.03), A2 = 3.99 (0.84);

B1 = 3.81 (0.92), B2 = 3.78 (0.99);

C1 = 3.70 (1.01), C2 = 3.78 (0.99).

Conversely, negatively worded items scored lower:

A3 = 2.08 (1.04), B3 = 2.01 (1.01), C3 = 2.15 (1.00),

which is logical, as respondents generally perceived AI as having a positive impact on internal auditing.

The moderate variability (SD ≈ 0.84–1.04) indicates adequate dispersion, supporting valid correlation testing. The low means for negative items confirm internal validity—participants consistently rejected negative statements about AI's role.

Links to Hypotheses

- A1–A2 support Sub-Hypothesis 1 (Independence/Objectivity).
- B1–B2 support Sub-Hypothesis 2 (Competence/Capabilities).
- C1–C2 support Sub-Hypothesis 3 (Methodology/Procedures).

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Table 2. Descriptive statistics of dimensions

Dimension	Mean	Std. Dev.	Min	Max
Independence	3.91	0.83	1.67	5
Efficiency	3.86	0.78	1.67	5
Methodology	3.78	0.83	1.67	5

Source: Prepared by the researchers based on SPSS analysis.

All means exceed the neutral value (3), with standard deviations around 0.8—indicating a positive perception among respondents that AI enhances these dimensions. The values suggest alignment with the three sub-hypotheses.

Table 3. Correlation matrix between dimensions

Dimension	Independence	Efficiency	Methodology
Independence	1	0.221	0.273
Efficiency	0.221	1	0.364
Methodology	0.273	0.364	1

Source: Prepared by the researchers based on SPSS analysis.

Pearson Correlations (r) and Significance (p):

- Independence ↔ Methodology: r = 0.273, p = 0.019 → *Positive and significant*
- Efficiency ↔ Methodology: r = 0.364, p = 0.0016 → *Positive and stronger*
- Independence ↔ Efficiency: r = 0.221, p = 0.060 → *Positive, marginally significant*

These positive low-to-moderate correlations suggest that the three dimensions represent distinct but related constructs of AI's impact on internal auditing. The strongest correlation between Efficiency and Methodology is logical, as developing digital capabilities often translates directly into improved audit procedures.

The interconnections indicate that enhancing one dimension (e.g., competence) tends to reinforce others (e.g., methodology), supporting the theoretical proposition that these dimensions collectively improve corruption detection capability.

Table 4. Corrected item–total correlations

Item	r_item-total	Item	r_item-total	Item	r_item-total
A1	0.723	B1	0.577	C1	0.625
A2	0.639	B2	0.609	C2	0.654
A3_R	0.665	B3_R	0.457	C3_R	0.572

Source: Prepared by the researchers based on SPSS analysis.

- Independence/Objectivity (A): A1 = 0.723, A2 = 0.639, A3_R = 0.665 → Strong and consistent.
- Competence/Capabilities (B): B1 = 0.577, B2 = 0.609, B3_R = 0.457 → Acceptable overall; B3_R is slightly weaker but within acceptable limits (>0.30).
- Methodology/Procedures (C): C1 = 0.625, C2 = 0.654, C3_R = 0.572 → Good to strong.

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All correlation coefficients exceed 0.30 (acceptable) and most exceed 0.50 (good), confirming that the items contribute meaningfully to their respective constructs.

Reliability Summary

Dimension	Cronbach's Alpha (α)	Interpretation
Independence/Objectivity (A)	0.817	Very Good
Competence/Capabilities (B)	0.724	Good
Methodology/Procedures (C)	0.78	Very Good

Source: Prepared by the researchers based on SPSS analysis.

Values of $\alpha \geq 0.70$ are considered reliable, and $\alpha \geq 0.80$ indicate strong internal consistency—confirming that the scales are dependable for further analyses such as correlations or regressions.

Hypothesis Discussion

First Hypothesis: *AI enhances independence and objectivity within internal auditing, improving its ability to detect corruption.*

- Mean = 3.91 (SD = 0.83).
- One-sample t-test vs. neutral value (3): $t(72) = 9.311$, $p < 0.001$, $d = 1.09$ → *Large effect size.*
- Reliability α = 0.817; strong item–total correlations (≥ 0.639).

Decision: Statistically supported for enhancing independence and objectivity. However, the direct effect on corruption detection could not be confirmed due to the absence of a dependent variable measure. Overall: *Partial acceptance* (first part confirmed; second part requires further testing).

Second Hypothesis: *AI enhances competence and professional capabilities, improving the ability to detect corruption.*

- Mean = 3.86 (SD = 0.78).
- $t(72) = 9.384$, $p < 0.001$, $d = 1.10$ → *Large effect size*.
- Reliability α = 0.724; item correlations good (B3_R weaker but acceptable).

Decision: Supported for competence enhancement; partial acceptance due to lack of direct corruption detection measure.

Third Hypothesis: *AI enhances methodology and work procedures, improving the ability to detect corruption.*

- Mean = 3.78 (SD = 0.83).
- $t(72) = 7.976$, $p < 0.001$, $d = 0.93$ → *Large effect size*.
- Reliability α = 0.780; item correlations strong.

Decision: Supported for methodological improvement; partial acceptance for corruption detection link.

Questionnaire Items

Section (A): Independence and Objectivity (Sub-Hypothesis 1)

- A1. The use of AI provided objective evidence that reduces subjective influence on audit outcomes.
- A2. AI helped protect the independence of the audit function against administrative pressures.
- A3. The use of AI increased management interference in audit results. *(Reverse item)*

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Section (B): Competence and Professional Capabilities (Sub-Hypothesis 2)

- B1. AI enabled us to analyze large data sets more quickly and accurately.
- B2. The audit team possesses the necessary skills to operate AI tools and interpret their outputs.
- B3. AI tools slow down audit work and hinder task completion. *(Reverse item)*

Section (C): Methodology and Work Procedures (Sub-Hypothesis 3)

- C1. AI improved the documentation of audit procedures and workflows.
- C2. AI contributed to the transition toward continuous auditing and risk-based prioritization.
- C3. No tangible change occurred in work procedures after adopting AI. *(Reverse item)*

CONCLUSION

The quantitative results demonstrate that artificial intelligence has a statistically significant positive impact on strengthening internal audit independence, competence, and methodological efficiency. These improvements collectively enhance audit quality and create a more proactive control environment conducive to detecting and preventing financial and administrative corruption. Although the study's measures focused primarily on perceptual indicators rather than direct corruption detection outcomes, the results strongly suggest that integrating AI tools within internal auditing represents a strategic enabler for institutional integrity and governance excellence.

REFERENCES

[1] Abdel-Hadi, Mohamed Fahmi; Al-Aidi, Mohamed Awad; et al. (2002). *Modern Trends in Libraries and Information.* Cairo: The Academic Library, Vol. 9, No. 17, p. 74.

[2] Khalayleh, Qusay Mohammed (2021). *The Impact of Artificial Intelligence Applications on the Quality of Health Care: An Applied Study on Jordanian Ministry of Health Hospitals.* Master's thesis, Al al-Bayt University, Mafraq, Jordan.

[3] Mehdi, Mourad (2022). *The Reality of Islamic Banks' Use of Artificial Intelligence Applications in Digital Marketing: Al Salam Bank–Algeria as a Model.* Economic Dimensions Journal, 12(2), 239–263.

[4] Abdelmalik, Mohammed Hisham (2021). *The Role of Neural Networks in Reducing Audit Risk: An Applied Study on a Sample of Industrial Companies Listed on the Iraq Stock Exchange.* Master's thesis in Accounting Sciences, College of Administration and Economics, University of Tikrit, Iraq.

[5] Khalifa, Ihab (2019). *Artificial Intelligence: Features and Implications of the Dominance of Smart Machines over Human Life.* Futures Studies, Issue 6, Abu Dhabi, April, pp. 8–9.

[6] Al-Anazi, Thamer Atiyah Sabr (2022). *Artificial Intelligence as an Approach to Achieving Sustainable Development in the Business Environment in Line with Saudi Vision 2030.* Journal of Economic, Administrative and Legal Sciences, 6(13).

[7] Hassan, Asmaa Hassan (2020). *Proposed Scenarios for the Role of Artificial Intelligence in Supporting Research and Information Journals at Egyptian Universities.* The Future of Arab Education, Arab Center for Education and Development, 27(125).

[8] Abdullah, Khaled Amin (2000). *The Science of Auditing: Theoretical and Practical Aspects.* Amman: Wael Publishing.

[9] Amin El-Sayed Lotfi (2004). *Auditing Between Theory and Practice.* Egypt: Al-Dar Al-Jami'ah for Publishing and Distribution.

[10] Al-Dhanibat, Ali (2010). *Auditing in the Light of International Auditing Standards (Theory and Application).* 2nd ed., University of Jordan.

[11] Al-Marzouq, Aya Abd Al-Samad Mohammed (2023). *The Effect of Accounting Information Characteristics on Internal Audit Efficiency and the Moderating Role of IT Governance: An Applied Study on Jordanian Commercial Banks.* Unpublished master's thesis, Middle East University, Amman.

[12] Al-Bayan Newspaper (Ahmed Mostafa) (2012). *The Importance of Internal Auditing.*

[13] Hegazy, Wagdy Hamed (2010). *Principles of Internal Auditing.* Egypt: University Education House.

[14] Saeed, Mohammed Hussein Hamma; & Sultan, Eyad Ayad Shaker (2023). *The Importance of Applying Operational Auditing in Developing the Efficiency and Effectiveness of Human Resources Performance: A Field Study in a Sample of Private Hospitals in the Kurdistan Region.*

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[15] Yusran Mohamed Sami Shamiya (2007–2008). *The Role of the Auditing Profession in Combating Corruption (An Applied Study).* Master's in Auditing, Faculty of Economics, University of Damascus, p. 17.
[16] Aboud Salem Mohammed (2008). *The Phenomenon of Administrative and Financial Corruption: A Study in the Problematic of Administrative Reform and Development.* Dar Al-Doctor for Sciences, University of Baghdad, p. 42.
[17] Hamrish, Samia (2018). *Financial and Administrative Corruption: Its Causes, Manifestations, and Prevention Mechanisms, with a Review of Leading International Anti-Corruption Experiences.* Manar International Journal for Legal and Political Research, Issue 5, University of Yahia Fares, Medea, Algeria, p. 279.
[18] Alaa Hafez Abdel-Kadhim (2011). *The Negative Effects of Corruption on the Economy and Investment.* Al-Nahar Newspaper, January 22, 2011.
[19] Hamd Zidan; & Qourin Haj Gouider (2006). *Administrative Corruption in the Developing State.* Research paper presented at the National Forum on Administrative Reform and Economic Development, Faculty of Economic Sciences, Management and Commercial Sciences, Khemis Miliana University Center, Dec. 30–31.
[20] Miloud Toumi; & Mohamed El-Amin Aloun (2016). *Internal Auditing as a Mechanism to Reduce Administrative and Financial Corruption in the Economic Enterprise.* Journal of Social Studies and Research, University of El Oued (Martyr Hamma Lakhdar University), Algeria.
[21] Bash, Obaid Mohammed Ali (2001). *The Economic and Social Effects of Administrative Corruption and Tax Evasion in the Developing State.* University of Babylon, College of Administration and Economics.
[22] Taher Mohsen Mandhur Al-Ghalabi (2008). *Corporate Social Responsibility and Business Ethics: Business and Society.* Amman: Wael Publishing, p. 385.
[23] ASOSAI (2003). *ASOSAI Audit Guide on Fraud and Corruption* (3rd ed.). Asian Organization of Supreme Audit Institutions (ASOSAI), pp. 18–19.
[24] Al-Fatafteh, Mahmoud (2007). *Corruption: The Other Face of Destruction.* Available at: www.aman-palestine.org
[25] Fatima Ibrahim Khalaf (2011). *Fiscal Policy and Administrative & Financial Corruption: An Applied Study in Egypt, 1980–2008.* University of Anbar Journal of Economic and Administrative Sciences, Issue 7, p. 229.
[26] Issa, H., Sun, T., & Vasarhelyi, M. A. (2016). *Research ideas for artificial intelligence in auditing: The formalization of audit and workforce supplementation*. Journal of Emerging Technologies in Accounting, 13(2), 1-20. https://doi.org/10.2308/jeta-10511
[27] Kokina, J., & Davenport, T. H. (2017). *The emergence of artificial intelligence: How automation is changing auditing*. Journal of Emerging Technologies in Accounting, 14(1), 115-122. https://doi.org/10.2308/jeta-51730
[28] Yoon, K., Hoogduin, L., & Zhang, L. (2015). *Big Data as complementary audit evidence*. -Accounting Horizons, 29(2), 431 51068-https://doi.org/10.2308/acch .438
[29] Fernandez, P., & Aman, A. (2021). *Artificial Intelligence and auditing: Challenges and opportunities*. Journal of Accounting .62-and Technology, 13(3), 45
[30] Appelbaum, D., Kogan, A., & Vasarhelyi, M. A. (2017). *Big data and analytics in the modern audit engagement: Research needs*. Auditing: A Journal of Practice & Theory, 36(4), 1-27. https://doi.org/10.2308/ajpt-51684
[31] Raguseo, E., & Vitari, C. (2018). *Investments in big data analytics and firm performance: An empirical investigation of direct and mediating effects*. .5221–nal Journal of Production Research, 56(15), 5206Internatio https://doi.org/10.1080/00207543.2018.1427900
[32] Alles, M., & Gray, G. L. (2020). *The impact of artificial intelligence on the audit profession: A literature review and research agenda*. International Journal of Accounting Information Systems, 39, 100473. https://doi.org/10.1016/j.accinf.2020.100473
[33] Jans, M., Alles, M. G., & Vasarhelyi, M. A. (2014). *A field study on the use of process mining of event logs as an analytical procedure in auditing*. 50757-https://doi.org/10.2308/accr .1773–ing Review, 89(5), 1751The Account
[34] Zubair, M., & Khan, A. (2021). *Artificial intelligence and fraud detection in public sector organizations*. Journal of Financial 0200-2020-10-https://doi.org/10.1108/JFC .895–Crime, 28(3), 879
[35] Omoteso, K. (2012). *The application of artificial intelligence in auditing: Looking back to the future*. Expert Systems with https://doi.org/10.1016/j.eswa.2012.01.098 .8495-Applications, 39(9), 8490
[36] Zada, R., & Hussein, W. N. (2024). Gendering and Utilization of Financial Inclusion A Demographic Study
[37] Hussein, S., Hussein, W., & Hussein, A. I. (2018). Hofstede's cultural dimensions (masculinity Vs. femininity) and its impact on earnings management. Journal Opcion, (34).
[38] Hussein, A. I., Mahmood, S. M., & Hussein, W. N. (2018). The relationship between the accounting conservatism and the financial performance efficiency of the banks according the data envelopment analysis: Evidence from Iraq. Opción, 34(85), 2661-2686

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[39] Hussein, W. N. (2020). Impact of Economic and Knowledge Transfer Advantages of Outsourcing Internal Audit on the Internal Control Environment/An Investigative study for a group of employees at Iraqi Industrial Sector. Tikrit Journal of Administration and Economics Sciences, 16(49 part 1).

[40] Hussein, W. N. (2019). The role of the ethical rules of the profession in support of audit procedures for detecting financial fraud-An exploratory study of the views of a sample of auditors in the province of Salah al-Din. Tikrit Journal Of Administrative and Economic Sciences, 10(31), 226-252

[41] Hussein, W. N. (2019). The role of corporate governance principles in achieve the audit quality An exploratory study of the views of a sample of auditors in the province of Salah al-Din. Tikrit Journal Of Administrative and Economic Sciences, 11(32), 280-302

[42] Bariscil, A., Hussein, W. N., & Yavuzaslan, A. (2017). Some Aspects of The Integration of Syrian Refugees in Turkey. Eurasian Journal of Social Sciences, 5(4), 2017, 1-6.

[43] Issa, S. S., Hussein, N. W., & Hussein, S. S. (2015). The effect of earning quality on liquidity risk by applying on banks registered in Iraqi Stock Exchange.

[44] Hussein, W. N. (2018). Impact of national culture on tax evasion through applying accounting conservatism in Iraq (Doctoral dissertation, Ph. D. thesis, Doctoral School of Management and Business Administration Sciences, Szent Istvan University, Godollo. Hungary).

[45] Husain, W. N. (2019). Risk of Using Electronic accounting information systems and its effect on characteristics of the quality of the accounting information's Exploratory study. .Tikrit Journal Of Administrative and Economic Sciences, 3(43), 45

[46] Hussein, W. N. (2020). Impact of Economic and Knowledge Transfer Advantages of Outsourcing Internal Audit on the Internal Control Environment/An Investigative study for a group of employees at Iraqi Industrial Sector. Tikrit Journal of Administration and Economics Sciences, 16(49 part 1).

[47] Hussein, W. N. (2019). The role of the ethical rules of the profession in support of audit procedures for detecting financial fraud-An exploratory study of the views of a sample of auditors in the province of Salah al-Din. Tikrit Journal Of Administrative and Economic Sciences, 10(31), 226-252.

[48] Hussein, W. N. (2019). The role of corporate governance principles in achieve the audit quality An exploratory study of the views of a sample of auditors in the province of Salah al-Din. Tikrit Journal Of Administrative and Economic Sciences, 11(32), 280-302.

[49] Hussein, W. N., & Kazem, A. A. (2019). The Role Balanced Scorecard in Evaluating The Bank Performance Applied study in Gulf Bank. Tikrit Journal of Administration and Economics Sciences, 15(45 Part 1)

[50] Hussein, W. N., Hussein, S. S., & Tangl, A., The External Audit Procedures in Reducing Tax Evasion Empirical Study: Iraq, In ICoM 2018 8th INTERNATIONAL CONFERENCE ON MANAGEMENT (p. 267)

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