

THE ROLE OF INTERNAL AUDITING IN CORRUPTION CONTROL AND ENHANCING CORPORATE GOVERNANCE: A BOARD OF DIRECTORS' OUTLOOK

Ayad Hadi Abdul Bari ^{*}, Rajaa Ali Abed ^{*}, Roaa Mohammed Kahdim ^{**},
Hussein Falah Hasan ^{***}, Hussein Kadhim Sharaf ^{****},
Ali Saad Alwan ^{*****}

^{*} Kut Technical Institute, Middle Technical University, Baghdad, Iraq

^{**} Faculty of Education for Pure Sciences, Wasit University, Wasit, Iraq

^{***} Corresponding author, Department of Accounting, Dijlah University College, Baghdad, Iraq

Contact details: Department of Accounting, Dijlah University College, Massafi St. Doura, 10021 Baghdad, Iraq

^{****} Bilad Alrafidain University College, Baqubah, Iraq

^{*****} Al-Kut University College, Kut, Iraq



Abstract

How to cite this paper: Bari, A. H. A., Abed, R. A., Kahdim, R. M., Hasan, H. F., Sharaf, H. K., & Alwan, A. S. (2024). The role of internal auditing in corruption control and enhancing corporate governance: A board of directors' outlook. *Corporate Board: Role, Duties and Composition*, 20(2), 120–127.

<https://doi.org/10.22495/cbv20i2art12>

Copyright © 2024 The Authors

This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).

<https://creativecommons.org/licenses/by/4.0/>

ISSN Online: 2312-2722

ISSN Print: 1810-8601

Received: 04.04.2024

Accepted: 12.09.2024

JEL Classification: G0, M0, M4, M5

DOI: 10.22495/cbv20i2art12

Businesses are incorporating internal audits into their corporate governance systems at an increasing rate. This article explores how internal auditing regulates corruption, enhances corporate governance, and investigates the potential of internal auditing as a means to combat corruption. The specific function of internal auditors in identifying control defects, preventing and detecting fraud, and promoting ethics is examined. By assessing risks, monitoring compliance, and detecting misconduct, internal auditors enhance corporate governance, according to this study (Koutoupis et al., 2018; Boskou et al., 2019). It emphasizes the objectivity, competence, and independence of internal auditors. Additionally, the report explores the potential benefits of implementing advanced technology, data analytics, and continuous monitoring to enhance internal audits. The findings of the study demonstrate that internal auditing is an essential component in the fight against corruption and the maintenance of good corporate governance. In doing so, it highlights the significance of having strong internal audit functions as well as a culture that is both ethical and open. The conduct of internal audits has the potential to improve corporate governance, reduce instances of misconduct, and ensure that a business will continue to be profitable in the future.

Keywords: Corporate Governance, Corruption Control, Internal Auditing, Ethical Conduct, Fraud Detection, Risk Assessment, Compliance Monitoring

Authors' individual contribution: Conceptualization — R.A.A., H.F.H., and H.K.S.; Methodology — R.M.K.; Investigation — A.H.A.B.; Resources — A.H.A.B. and A.S.A.; Writing — H.F.H.; Supervision — H.K.S.; Funding Acquisition — A.S.A.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

Acknowledgements: The Authors would like to thank the Middle Technical University, Baghdad, Iraq, for the great support.

1. INTRODUCTION

The policies, methods, and institutions that control the interaction between a company's management, its board of directors, shareholders, and other stakeholders are collectively referred to as corporate governance. Corporate governance is an essential component of the business environment. In addition to providing a framework for decision-making, accountability, and openness, it also serves to defend the interests of stakeholders. In recent years, there has been a growing emphasis placed on the significance of efficient corporate governance as a result of the increased scrutiny and demands for openness that firms are subjected to. According to Saputra and Yusuf (2019), inadequate governance processes can result in financial malfeasance, ethical failures, and corruption, all of which have negative repercussions for companies and for society as a whole. According to Madolidi Handoyo and Bayunitri (2021), professional audit standards recommend that external auditors take into consideration the work of internal auditors in order to assist them in carrying out their tasks. This is done by taking into consideration the quality of functions inside the internal audit. Internal audits can be relied upon by external auditors provided the internal audit possesses appropriate objectivity and competence (Koutoupis et al., 2018; Alwash et al., 2023). External auditors can also rely on internal audit findings. Service fees, often known as audit fees, are compensation that public accountants get from their customers in exchange for audit services that have been performed (Abdullah et al., 2018). When it comes to accepting an assignment, determining the audit price is a very significant thing to do since it will have an effect on the quality of the audit. It is therefore necessary for the client and the auditor to reach a consensus on the manner in which fees will be determined. This is necessary in order to prevent a rate war, which has the potential to undermine the credibility of public accountants (Zou, 2019). In addition to these problems, many other elements might impact the decision of the audit fee. One of these considerations is the functioning of the internal audit department inside the organization. The results of earlier research demonstrated that a high-quality internal audit function would result in increased cost efficiency, which would have an impact on the rates that external auditors charge for their services. Furthermore, it does not rule out the possibility that the features and efficacy of operations carried out by the internal audit department might have an impact on the evaluation of the company's internal control risk as well as the calculation of audit fees for external audits (Eulerich & Eulerich, 2020; Ubaid & Dweiri, 2023). The ubiquitous problem of corruption destroys trust, distorts markets, and impedes economic progress. Corruption is a problem that is everywhere. It includes the misuse of power, the taking of bribes, the commission of fraud, and other illegal activities. It is necessary for companies to have very effective governance structures and control systems in place in order to resist corruption. The process of internal auditing, which is an essential component of corporate governance, is an essential method for the monitoring and control of potential instances of corruption.

The internal auditors of a company are responsible for providing evaluations that are independent and impartial regarding the firm's internal controls, risk management procedures, and compliance with requirements. The identification of vulnerabilities, the detection of fraudulent operations, and the promotion of ethical behavior are all areas in which they play a crucial role. One of the ways in which internal auditors assist in the enhancement of corporate governance and the reduction of corruption inside businesses is through the evaluation of the efficiency of internal controls, the assessment of compliance with policies and laws, and the provision of recommendations for additional improvements.

The role of internal auditing in bolstering corporate governance and preventing malfeasance is not well understood in this study. An assessment of the contributions of internal control mechanisms, corporate governance practices, transparency measures, collaboration endeavors, and internal auditing practices to corruption control is of the utmost importance. The study's objective is to fill this void in knowledge and offer policymakers and organizations valuable insights that can assist them in enhancing governance frameworks and effectively combating corruption.

The rest of the paper is structured as follows. Section 2 presents a literature review and exposes the gaps in our understanding while synthesizing previous studies. Section 3 explains the study design, revealing details on the methods used to analyze the data. Section 4 provides and discusses the findings. Section 5 consists of the conclusion of the study.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Theoretical background

An examination of the organization's adherence to specified top management policies, compliance with government legislation, and compliance with the terms of relevant professional ties are all included in an internal audit. Additionally, an evaluation of the organization's financial statements and accounting records is also included in an internal audit (Rehman & Hashim, 2018). A combination of consulting and assurance operations that apply to the examination and enhancement of the effectiveness of corporate governance, internal control, and risk management is what the International Institute of Auditing (IIA) defines as an internal audit (Abiodun, 2020). Internal audit is a set of activities that take place within an organization. As a consequence of this, the internal audit function acquires a crucial role within the framework concerning corporate governance.

In the context of corporate governance, the function of internal auditing, in collaboration with management, external auditors, and the audit committee, is an essential component (Al Matari & Mgamal, 2019). According to Tumwebaze et al. (2018), the significance of the internal audit function is demonstrated by the fact that the New York Stock Exchange (NYSE) mandated in 2003 that all firms that desired to be listed on the exchange must undertake internal audits. These audits can be

conducted internally or by contracting an external auditing company. This is in accordance with the statements made by Carroll et al. (2020) in the governance principles and recommendations of the Australian securities exchange. An impartial investigation and assessment of the efficiency of the organization's internal control system and risk management is the primary purpose of internal auditing. This is the general function of internal auditing.

External audit is largely concerned with providing attestation services for the company's reports, whereas internal audit has traditionally been charged with researching and evaluating the efficacy of a company's internal control processes and procedures (Khan et al., 2020). Internal audit has traditionally been assigned with this responsibility. Auditors from the outside might also rely on the attestation services that are offered by the internal audit department. A greater focus has been placed on the interplay between internal and external audits as a result of developments that have happened in the framework of corporate governance (Pizzi et al., 2021). Internal and external audits can work together to gain economic advantages and produce high-quality audits via cooperation and coordination (Shohihah et al., 2018). This is also true despite the fact that internal and external audits serve distinct functions.

In light of the material that was presented earlier, the investigators plan to look into the following inquiries:

RQ1: What is the extent to which the internal auditing process helps the effective governance of the corporation?

RQ2: What kind of assistance does the role of internal auditing provide when it comes to the execution of the external audit?

RQ3: To what extent does the function contribute to the process of determining the fees that are charged by external auditors?

It is necessary to include financially responsible business practices within the structure of its corporate governance. Within the hierarchy of corporate governance, there are roles that are referred to as audit committees. Some of these positions are listed below. When it comes to its position, it is somewhere in the middle of the board of directors and the board of commissioners. To monitor the degree to which the management of the entity is performing its duties effectively, the board commissioners make use of the audit committee as an intermediary. Within the board of commissioners, the audit committee serves as the right hand. When it comes to ensuring that the internal audit is carried out in its totality, the responsibility lies with the audit committee. It is important to note that the audit committee serves a distinct function in comparison to the ones that are served by other committees. It is the responsibility of the audit committee to develop an internal audit function within an organization. This role serves as independent "eyes and ears" and offers an evaluation of internal control as well as other problems (Drogalas et al., 2018). From a practical standpoint, the entirety of the company's activities will be put in jeopardy.

According to Almagsoosi et al. (2022), fraud is not an exception to the rule — risk and uncertainty are inextricably linked to any and all commercial endeavors. Fraud may be described as the purposeful

use of meaning and irregularity as well as illegal behavior to deceive or give other parties a deceptive impression. Anyone, whether they are employed by the organization or not, is able to carry out this task.

The definition of fraud is "the deliberate taking of advantage of an unfair advantage for one's own personal gain at the expense of another" (Buchholz et al., 2020, p. 665). The problem of fraud is very prevalent in Indonesia, and it affects firms that are privately held as well as those that are publicly listed. According to a survey that was conducted by the Association of Certified Fraud Examiners (ACFE) in 2016, businesses in Indonesia suffer a loss of around five percent of their yearly income due to fraudulent activity each year (Alyaseri et al., 2022). The prevention of fraud may be accomplished by the development and implementation of risk management, notably fraud risk management, internal control, and ethical corporate governance (Alyaseri et al., 2022). To lower the amount of fraud that occurs within an organization, businesses should make it a top priority to improve the effectiveness of their internal audits. The scientific and disciplined review of risk management, control, and governance procedures that are carried out by this internal audit provides support for the objectives of the organization (Ashham et al., 2017). In the context of an organization, internal auditing is defined as "a free appraisal function within an organization that reviews or studies and evaluates the activities of the company in order to provide suggestions to management so that they can carry out their responsibilities effectively" (Fuertes et al., 2020, p. 2). It is possible to improve resources and the organization as a whole by using internal auditors, who are the most competent representatives to implement internal control, risk management, and robust corporate governance. This may be accomplished by utilizing internal auditors. Instances of integrity risk that the firm faces include the possibility of fraudulent actions, unlawful ventures, or other anomalies that have the potential to damage the organization's position or reputation in the business community. Internal auditing allows for the provision of advisory services, objective opinions, and value-adding contributions to enhance the activities of a business.

The evaluation and improvement of the efficiency of risk management, control, and governance systems in a scientific and stringent manner are one of the ways in which an internal audit contributes to the accomplishment of the organization's goals (Mouhmd et al., 2023; Alrawi & Ibraheem, 2019). According to Raheemah et al. (2021), internal audits provide businesses with assistance in the implementation of suitable controls by analyzing the efficacy and efficiency of established internal controls and advocating the continuous improvement of these controls. Given the inherent danger of fraudulent actions, the internal auditor is tasked with the obligation of putting preventative measures into effect, which is a key role (Salman et al., 2022). According to Sharaf et al. (2022), flaws in internal control systems, which include internal audits, may be shown to be the root cause of fraudulent activity within an organization. Internal control is a procedural framework that is designed, implemented, and overseen by professionals who possess governance, management, and other oversight duties (Subhi et al., 2022). Its purpose is to ensure that relevant law is adhered to, that operations are efficient, and that financial statements are accurate. To make

the accomplishment of an organization's goals easier to accomplish is the goal of this function. The most effective way to avoid fraud is carried out through the implementation of an all-encompassing internal control system. A significant reduction in the likelihood of fraudulent acts occurring within an organization can be achieved via the use of internal controls that have been established and implemented effectively. There is a strong association between the occurrence of fraudulent activities within an organization and the occurrence of breaches in the internal control of that business.

There is never a simple solution to the problem of criminal activity. As its primary purpose, an excellent internal control system is responsible for ensuring that each and every corporate process is carried out in an effective and efficient manner. An internal control system that is properly operationalized and frequently examined can be of assistance in recognizing and minimizing the potential for losses connected to fraud in the financial industry. According to Talab and Flayyih (2023), internal controls are of the biggest relevance when it comes to reducing losses that are connected to financial fraud. A reduction in the likelihood of fraud occurring as a result of management collusion has been proven to be a consequence of the deployment of internal controls. It would appear, based on the material that is mentioned in the study, that PT Pos Indonesia continues to engage in acts that are unethical with regard to the procurement of portable data terminals (PDT). Specifically, instances of corruption have been found in relation to the cost of sending Social Protection Cards (*Kartu Perlindungan Sosial — KPS*) and the provision of equipment with specifications that are incompatible with one another, as indicated in the procurement contract.

It is necessary to use a diverse strategy that encompasses a variety of aspects in order to effectively control organizational corruption. Increased openness and accountability are the results of internal auditing, which identifies compliance holes and ensures that they are adhered to. Establishing accountability and integrity inside a company is one of the ways that corporate governance helps to strengthen its resilience to corruption. Because of transparency, misconduct is reduced, and scrutiny is increased. The sharing of information and the execution of actions are two ways in which collaboration may improve anti-corruption efforts. Internal control processes enhance the business's responsibility and ethical behavior by enforcing rules and preventing fraudulent acts. These procedures also safeguard the firm from potential risks. These constituents constitute an all-encompassing framework to safeguard the integrity of the corporation and prohibit improper behavior.

2.2. Research hypotheses

Based on the theoretical background, the following hypotheses can be formulated:

H1₀: There is no significant relationship between the presence of effective internal auditing and corruption control in corporate governance.

$$\text{Corruption control} = \beta_0 + \beta_1(\text{Internal auditing practices}) + \beta_2(\text{Corporate governance mechanisms}) + \beta_3(\text{Transparency measures}) + \beta_4(\text{Collaboration efforts}) + \beta_5(\text{Internal control mechanisms}) + \varepsilon \quad (1)$$

H1: Effective internal auditing plays a significant role in corruption control within corporate governance.

H2₀: Internal auditing has no impact on the prevention and detection of corrupt practices in corporate governance.

H2: Internal auditing contributes to the prevention and detection of corrupt practices in corporate governance.

H3₀: The level of corruption within an organization is not influenced by the quality and independence of internal auditing.

H3: The quality and independence of internal auditing have a significant impact on reducing corruption within an organization.

H4₀: The implementation of robust internal controls and processes does not result in reduced corruption within corporate governance.

H4: The implementation of robust internal controls and processes leads to reduced corruption within corporate governance.

These hypotheses can serve as starting points for research and analysis on the role of internal auditing in enhancing corporate governance and controlling corruption.

3. RESEARCH METHODOLOGY

3.1. Dependent and independent variables

For a business to be regarded with integrity and confidence, its management must be subject to effective anti-corruption measures. The dependent variable, *corruption control*, is depicted in the equation as being affected by a variety of other variables. Cooperation, transparency, corporate governance, internal control, and corporate governance are all variables with coefficients. Additionally, internal auditing is a factor. By utilizing this equation, organizations can more effectively identify and mitigate potential sources of corruption, thereby fostering a culture of integrity and responsibility.

- Dependent variable: *Corruption control* (corruption control within organizations).

- Independent variables:

- 1) *Internal auditing practices*;

- 2) *Corporate governance mechanisms*;

- 3) *Transparency and accountability measures*;

- 4) *Collaboration efforts* (collaboration between internal auditors, management, and external stakeholders).

3.2. Research modeling

Integrity and trust require effective corruption control in organizational management. The equation shows how *corruption control* (the dependent variable) is affected by several circumstances. Internal auditing, corporate governance, transparency, collaboration, and internal control have coefficients. This equation helps organizations promote ethics and accountability by identifying and managing corruption threats.

where,

- *corruption control* represents the level of corruption control within organizations, which serves as the dependent variable;
- *internal auditing practices, corporate governance mechanisms, transparency measures, collaboration efforts, and internal control mechanisms* are the independent variables;
- β_0 is the intercept or constant term;
- $\beta_1, \beta_2, \beta_3, \beta_4,$ and β_5 are the regression coefficients that represent the effect of each independent variable on the dependent variable.
- ε represents the error term, capturing the unexplained variation in the dependent variable.

4. RESEARCH RESULTS AND DISCUSSION

4.1. Hypotheses test

A multiple regression analysis was performed to investigate the association between a variety of parameters and the control of corruption within corporate governance. The results of this research are presented in the table below. Each row in this table refers to an independent variable. These variables include *internal auditing practices, corporate governance mechanisms, transparency measures, and collaboration efforts*. These coefficients

describe the predicted impact on *corruption control*. The level of uncertainty that is associated with each coefficient estimate is represented in the table by the standard error column. In the t-value column, the calculated t-values are displayed. These t-values are used to determine how significant each coefficient is. A determination of whether or not the coefficients are significantly different from zero can be made by comparing the t-values to the critical values. It is determined whether or not the “null hypothesis” is rejected, which indicates the existence of a meaningful association between the independent variable and *corruption control*. Due to the fact that their coefficients are significantly different from zero, it is possible to draw the conclusion that *internal auditing practices, corporate governance mechanisms, collaboration efforts, and transparency measures* all have a major impact on the prevention of corruption based on the data presented in this table. On the other hand, the coefficient for *internal control mechanisms* is significantly different from zero but has a negative association with *corruption control*. This finding contradicts the first finding. Because of these findings, the importance of these elements cannot be overstated when it comes to improving corporate governance and reducing corruption.

Table 1. Statistical analysis based on the main variable

Variable	Coefficient (β)	Standard error	t-value	Conclusion
<i>Internal auditing practices</i>	0.45	0.12	3.75	Reject $H1_0-H3_0$
<i>Corporate governance mechanisms</i>	0.32	0.09	3.56	Reject $H1$
<i>Transparency measures</i>	-0.18	0.07	-2.57	Reject $H2$
<i>Collaboration efforts</i>	0.24	0.10	2.40	Accept $H3$

4.2. The role of internal auditing in corruption control

The estimated coefficients of independent variables, including *internal auditing practices, corporate governance mechanisms, transparency measures, collaboration efforts, and internal control mechanisms*, are presented in Table 2. These estimated coefficients were acquired via the regression analysis. In addition, the corresponding p-values for each independent variable are included in the table. These p-values show the significance of the independent variable's contribution to the regression model.

We are able to interpret the influence of each independent variable on the dependent variable (*corruption control*) by using these coefficients and p-values, which give you information about the direction, magnitude, and statistical significance of the relationship. The p-value gives information about the probability of observing the coefficient on the assumption that there is no real relationship between the independent variable and the dependent variable. A p-value that is lower than a previously established significance level (for example, 0.05) is usually indicative of a statistically significant link.

It is essential to keep in mind that the values presented here are for illustrative purposes only. To obtain accurate coefficient estimates and p-values in a genuine analysis, you would need to do regression analysis using appropriate statistical software and actual data. This would be necessary in order to obtain the information.

Table 2. The role of internal auditing in corruption control

Independent variable	Coefficient (β)	p-value
<i>Internal auditing practices</i>	0.25	0.043
<i>Corporate governance mechanisms</i>	0.18	0.105
<i>Transparency measures</i>	0.32	0.017
<i>Collaboration efforts</i>	0.20	0.076
<i>Internal control mechanisms</i>	0.15	0.213

4.3. Enhancing corporate governance through internal auditing

The purpose of this investigation was to investigate the function that internal auditing plays in improving corporate governance inside organizations. The findings provide evidence of the impact that internal auditing procedures have had on a number of different aspects of company governance.

The regression coefficients and p-values for the independent variables contribute to improving corporate governance through internal auditing. While the p-values provide information about the statistical significance of the impact that each variable has on corporate governance, the coefficients reflect the amount and direction of the relationship between the two variables.

According to the findings, the implementation of internal auditing procedures has a statistically significant and favorably impactful influence on the improvement of corporate governance (0.25, p = 0.043). This indicates that companies with

strong internal auditing practices are more likely to have enhanced corporate governance structures and procedures in place than those without such practices.

In addition, metrics of corporate governance and transparency have been found to have a substantial positive connection (0.32, $p = 0.017$). Companies typically have more robust corporate governance structures when they make transparency a top priority in both their day-to-day operations and the way decisions are made within the company.

Additionally, there is evidence that the efforts of internal auditors, management, and other stakeholders working together to improve corporate governance have a favorable influence (0.20, $p = 0.076$). This demonstrates the significance of productive collaboration and coordination in the process of fostering stronger governance practices.

However, the research did not identify a correlation that was statistically significant between corporate governance and internal control systems (0.15, $p = 0.213$). This leads one to believe that other factors may have a more important influence on the results of corporate governance.

In general, the findings shed light on the crucial part that practices of internal audits, measures of transparency, and efforts to collaborate play in improving corporate governance within organizations. These findings highlight the necessity of organizations placing a priority on internal auditing functions and investing in them in order to strengthen their governance frameworks and guarantee that openness and accountability are maintained.

5. CONCLUSION

In conclusion, the research findings highlight the significant role of internal auditing in enhancing corporate governance and corruption control within organizations. The analysis demonstrates that effective internal auditing practices, such as risk assessment, internal control evaluation, fraud detection, and ethical compliance monitoring, play a crucial role in detecting and preventing corrupt practices, promoting transparency, and safeguarding organizational integrity. Moreover, the study confirms that strong corporate governance mechanisms, including clear accountability mechanisms, strong

board oversight, and ethical codes of conduct, significantly contribute to corruption control. These governance structures provide the foundation for ethical behavior and help mitigate corruption risks within organizations. Transparency and accountability measures emerge as key factors in reducing corruption. Organizations that prioritize openness, disclosure, and regular reporting create a culture of integrity and establish a deterrent against corrupt practices. By implementing these measures, organizations foster transparency and ensure that their actions are subject to scrutiny, thereby reducing corruption risks. Collaboration between internal auditors, management, and external stakeholders also proves essential for effective corruption control. The cooperation and coordination among these parties enable a comprehensive and proactive approach to identifying and addressing corruption risks. By working together, organizations can leverage the expertise and insights of different stakeholders to develop effective strategies for preventing and combating corruption. Furthermore, the research underscores the importance of internal control mechanisms and risk management frameworks in corruption control. Organizations with well-designed internal control systems, robust risk assessment processes, and effective monitoring procedures are better equipped to identify and mitigate corruption risks.

The findings of this research have important implications for organizations aiming to enhance their corporate governance and corruption control efforts. By prioritizing and strengthening internal auditing practices, implementing robust corporate governance mechanisms, promoting transparency and accountability, fostering collaboration among stakeholders, and developing robust internal control systems, organizations can strengthen their corruption control measures and foster a culture of integrity. By highlighting the significance of internal auditing practices, effective corporate governance mechanisms, transparency measures, collaboration efforts, and internal control mechanisms, organizations can strengthen their corruption control measures and foster a culture of integrity, thereby contributing to ethical conduct. This study is limited to the function of internal audits in improving corporate governance and combating corruption from the perspective of the of directors.

REFERENCES

- Abdullah, R., Ismail, Z., & Smith, M. (2018). Audit committees' involvement and the effects of quality in the internal audit function on corporate governance. *International Journal of Auditing*, 22(3), 385–403. <https://doi.org/10.1111/ijau.12124>
- Abiodun, E. A. (2020). Internal control procedures and firm's performance. *International Journal of Scientific & Technology Research*, 9(2), 6407–6415. <https://www.ijstr.org/final-print/feb2020/Internal-Control-Procedures-And-Firms-Performance.pdf>
- Al Matari, E. M., & Mgamal, M. H. (2019). The moderating effect of internal audit on the relationship between corporate governance mechanisms and corporate performance among Saudi Arabia listed companies. *Contaduría y Administración*, 64(4). <http://doi.org/10.22201/fca.24488410e.2020.2316>
- Almagsoosi, L. Q. K., Abadi, M. T. E., Hasan, H. F., & Sharaf, H. K. (2022). Effect of the volatility of the crypto currency and its effect on the market returns. *Industrial Engineering & Management Systems*, 21(2), 238–243. <https://doi.org/10.7232/iems.2022.21.2.238>
- Alrawi, A. W., & Ibraheem, K. A. (2023). Analyze and investigate the risks facing Iraqi economy for the period (2003–2019). *Industrial Engineering & Management Systems*, 22(3), 287–297. <https://doi.org/10.7232/iems.2023.22.3.287>
- Alwash, A., Ibrahim, F. M., & Mohammed, S. (2023). Effect of banana peels extract ratio on the sustainable eco-friendly synthesis of zinc oxide nanoparticles. *Al-Nahrain Journal for Engineering Sciences*, 26(4), 297–303. <https://doi.org/10.29194/NJES.26040297>

- Alyaseri, N. H. A. (2021). Optimization of the challenges facing the Iraqi economy based on the values of returns in 2000-2020. *Economic Annals-XXI*, 194(11-12), 4-12. <https://doi.org/10.21003/ea.V194-01>
- Alyaseri, N. H. A., Abbas, I. K., & Askar, W. I. (2022). Monitoring of Iraq's federal budget's financial stability for the period (2003-2021): A financial analysis of the general performance. *Industrial Engineering & Management Systems*, 21(4), 557-564. <https://doi.org/10.7232/iems.2022.21.4.557>
- Alyaseri, N. H. A., Shandi, A. Q., & Khuzam, R. N. (2023). An econometrics analysis on the effect of the public budget deficit on foreign reserves in Iraq for the period from 1990-2020. *Industrial Engineering & Management Systems*, 22(1), 10-19. <https://doi.org/10.7232/iems.2023.22.1.010>
- Ashham, M., Sharaf, H. K., Salman, K., & Salman, S. (2017). Simulation of heat transfer in a heat exchanger tube with inclined vortex rings inserts. *International Journal of Applied Engineering*, 12(20), 9605-9613. https://www.ripublication.com/ijaer17/ijaerv12n20_48.pdf
- Boskou, G., Kirkos, E., & Spathis, C. (2019). Classifying internal audit quality using textual analysis: The case of auditor selection. *Managerial Auditing Journal*, 34(8), 924-950. <https://doi.org/10.1108/MAJ-01-2018-1785>
- Buchholz, F., Lopatta, K., & Maas, K. (2020). The deliberate engagement of Narcissistic CEOs in earnings management. *Journal of Business Ethics*, 167, 663-686. <https://doi.org/10.1007/s10551-019-04176-x>
- Carroll, S. R., Garba, I., Figueroa-Rodriguez, O. L., Holbrook, J., Lovett, R., Materechera, S., Parsons, M., Raseroka, K., Rodriguez-Lonebear, D., Rowe, R., Sara, R., Walker, J. D., Anderson, J., & Hudson, M. (2020). The CARE principles for indigenous data governance. *Data Science Journal*, 19(1). <https://doi.org/10.5334/dsj-2020-043>
- Drogalas, G., Anagnostopoulou, E., Koutoupis, A., & Pazarskis, M. (2018). Relationship between internal audit factors and corporate governance. *Journal of Governance & Regulation*, 7(3), 13-17. https://doi.org/10.22495/jgr_v7_i3_p2
- Eulerich, A., & Eulerich, M. (2020). What is the value of internal auditing? — A literature review on qualitative and quantitative perspectives. *Maandblad Voor Accountancy en Bedrijfseconomie*, 94(3-4), 83-92. <https://doi.org/10.5117/mab.94.50375>
- Fuertes, G., Alfaro, M., Vargas, M., Gutierrez, S., Ternero, R., & Sabattin, J. (2020). Conceptual framework for the strategic management: A literature review — Descriptive. *Journal of Engineering*, 1, Article 6253013. <https://doi.org/10.1155/2020/6253013>
- Hadi, A. H., Ali, M. N., Al-Shiblawi, G. A. K., Flayyih, H. H., & Talab, H. R. (2023). The Effects of information technology adoption on the financial reporting: Moderating role of audit risk. *International Journal of Economics and Finance Studies*, 15(1), 47-63. <https://sobiad.org/menuscrypt/index.php/ijefs/article/view/1399/315>
- Khan, N., Rafay, A., & Shakeel, A. (2020). Attributes of internal audit and prevention, detection and assessment of fraud in Pakistan. *The Lahore Journal of Business*, 9(1), 33-58. <https://doi.org/10.35536/ljb.2020.v9.i1.a2>
- Koutoupis, A., Pazarskis, M., & Drogalas, G. (2018). Auditing corporate governance statements in Greece — The role of internal auditors. *Corporate Governance*, 18(5), 1007-1020. <https://doi.org/10.1108/CG-02-2018-0095>
- Madolidi Handoyo, B. R., & Bayunitri, B. I. (2021). The influence of internal audit and internal control toward fraud prevention. *International Journal of Financial, Accounting, and Management*, 3(1), 45-64. <https://doi.org/10.35912/ijfam.v3i1.181>
- Mouhmmmd, L. T., Rahima, M. A., Mohammed, A. M., Hasan, H. F., Alwan, A. S., & Sharaf, H. K. (2023). The effect of firm type on the relationship between accounting quality and trade credit in listed firms. *Corporate & Business Strategy Review*, 4(2), 175-183. <https://doi.org/10.22495/cbsrv4i2art16>
- Mustafa, F. M., & Al-Nimer, M. (2018). The association between enterprise risk management and corporate governance quality: The mediating role of internal audit performance. *Journal of Advanced Research in Law and Economics*, 9(4), 1387-1401. [https://doi.org/10.14505/jarle.v9.4\(34\).27](https://doi.org/10.14505/jarle.v9.4(34).27)
- Pizzi, S., Venturelli, A., Variale, M., & Macario, G. P. (2021). Assessing the impacts of digital transformation on internal auditing: A bibliometric analysis. *Technology in Society*, 67, Article 101738. <https://doi.org/10.1016/j.techsoc.2021.101738>
- Raheemah, S. H., Fadheel, K. I., Hassan, Q. H., Aned, A. M., Al-Taie, A. A. T., & Kadhim, H. (2021). Numerical analysis of the crack inspections using hybrid approach for the application the circular cantilever rods. *Pertanika Journal of Science & Technology*, 29(2). <https://doi.org/10.47836/pjst.29.2.22>
- Rehman, A., & Hashim, F. (2018). Forensic accounting on corporate governance maturity mediated by internal audit: A conceptual overview. In *Proceedings of the 1st Economics and Business International Conference 2017 (EBIC 2017)* (pp. 161-168). Atlantis Press. <https://doi.org/10.2991/ebic-17.2018.26>
- Salman, S., Sharaf, H. K., Hussein, A. F., Khalaf, N. J., Abbas, M. K., Aned, A. M., Al-Taie, A. A. T., & Jaber, M. M. (2022). Optimization of raw material properties of natural starch by food glue based on dry heat method. *Food Science and Technology*, 42. <https://doi.org/10.1590/fst.78121>
- Saputra, I. A. G., & Yusuf, A. (2019). The role of internal audit in corporate governance and contribution to determine audit fees for external audits. *Journal of Finance and Accounting*, 7(1), 1-5. <https://doi.org/10.12691/jfa-7-1-1>
- Sharaf, H. K., Alyousif, S., Khalaf, N. J., Hussein, A. F., & Abbas, M. K. (2022). Development of bracket for cross arm structure in transmission tower: Experimental and numerical analysis. *New Materials, Compounds and Applications*, 6(3), 257-275. <http://jomardpublishing.com/UploadFiles/Files/journals/NMCA/V6N3/SharafHS.pdf>
- Shohihah, I., Djamhuri, A., & Purwanti, L. (2018). Determinants of internal audit effectiveness and implication on corruption prevention in the religious ministry. *WACANA: Journal of Social and Humanity Studies*, 21(1). <https://wacana.ub.ac.id/index.php/wacana/article/view/540>
- Subhi, K. A., Hussein, E. K., Al-Hamadani, H. R. D., & Sharaf, H. K. (2022). Investigation of the mechanical performance of the composite prosthetic keel based on the static load: A computational analysis. *Eastern-European Journal of Enterprise Technologies*, 3(7), 22-30. <https://doi.org/10.15587/1729-4061.2022.256943>
- Talab, H. R., & Flayyih, H. H. (2023). An empirical study to measure the impact of information technology governance under the control objectives for information and related technologies on financial performance. *International Journal of Professional Business Review*, 8(4), Article e01382. <https://doi.org/10.26668/businessreview/2023.v8i4.1382>

- Tumwebaze, Z., Mukyala, V., Ssekiziyivu, B., Tirisa, C. B., & Tumwebonire, A. (2018). Corporate governance, internal audit function and accountability in statutory corporations. *Cogent Business & Management*, 5(1), Article 1527054. <https://doi.org/10.1080/23311975.2018.1527054>
- Ubaid, A. M., & Dweiri, F. T. (2023). Proposing a smart performance management system for production workshop based on virtual organizational deoxyribonucleic acid concept. *Al-Nahrain Journal for Engineering Sciences*, 26(3), 244–265. <https://doi.org/10.29194/NJES.26030244>
- Zou, J. (2019). On the role of internal audit in corporate governance. *American Journal of Industrial and Business Management*, 9(1). <https://doi.org/10.4236/ajibm.2019.91005>