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A New Decade for Social Changes
Examine the Relationship Between the Professional Competency of IA and the Effectiveness of RM in Improving Compliance in Iraq’s Public Organization

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Abstract. The importance of internal audits has escalated in the current dynamic and intricate economic and financial landscape. It plays a crucial role in assisting management in attaining its goals by offering unbiased and independent assurance regarding the efficiency of risk management, the sufficiency of internal control, and the accuracy of financial reporting. It is widely known that Iraq has seen instances of fraud and mismanagement of public funds in recent years, highlighting a systemic flaw in the regulatory structure and the auditing profession inside public sector organizations. However, by enhancing compliance through the fundamental pillars of optimizing the efficiency of internal audits and the efficacy of risk management, we can envision a future where the misuse of public funds and various forms of corruption are minimized. This, in turn, will lead to improved adherence to relevant laws and the production of reliable financial statements that can be used for decision-making by appropriate stakeholders. It is the role of government agencies to prioritize these improvements, as they have the power and responsibility to do so. We created a questionnaire of three dimensions and 45 paragraphs to fulfil the research objectives. A sample of internal auditors in sectoral organizations was randomly selected, comprising 283 respondents. We employed both primary and multiple regression analyses to examine the hypotheses. The study concluded that there needs to be a strategy for continuing education for internal audit employees, which indicates a lack of sufficient interest in this topic and the lack of clear strategies and policies for risk management.

Keywords. Professional Competency of IA, Internal Audit, Banks, Effectiveness of RM, Compliance, Public Organization, Iraq

Introduction: Internal auditing is essential for ensuring the efficiency of risk management. It requires enhancement through heightened risk awareness, expanded exposure, comprehensive training, and augmented assistance from the audit committee and top management. A rigorous management procedure is implemented to mitigate fraud and avoid the improper use of public funds (Weekes, 2020). The study conducted by Postula et al. (2020) examined the favourable influence of internal audit efficiency measures on completing public service tasks at the operational level. However, no influence was observed on the volume of completion at the strategic level. Increasing the emphasis of internal audits on assessing the efficiency of public administration enhances the evaluation of the decision-making process. According to a study
by Breger and Ortegren (2020), external auditors place significant trust in internal audit functions that adhere to the standards set by the Institute of Internal Auditors and do not engage in administrative or advisory tasks. This trust underscores the responsibility of internal auditors in maintaining these standards. Adhering to the criteria set by the Institute of Internal Auditors can lower expenses associated with external audits and enhance the calibre of internal audits. The previous (Lartey et al., 2020) study stated that preventive, detective, corrective, and prescriptive controls are adequate compliance indicators. These controls encompass procedures implemented to prevent, detect, correct, and prescribe steps to resolve non-compliance. Organizations that implement preventive measures tend to have more effective internal control. Avoiding excessive dependence on controls may not substantially affect compliance in the long term, as controls are typically put in place to detect risks and events after they have already happened, which is a common approach used by public organizations.

A study by Zammit and Kizilkaya (2021) found that a lot of people have doubts about risk management (RM) and internal auditing (IA). However, most public sector organizations have high standards of integrated (GRC) practices that are used in their daily work and inside the company. However, the risk management function is the least developed area, and the reason for this is following a reactive approach instead of a proactive approach to management. However, the public sector has a risk-averse culture. (Tamimi, 2021) He agrees with this opinion, as he believes that the main factor in risk management is the efficiency of the risk manager, and internal audits play an essential role in evaluating this efficiency. They focus on this area in two aspects. The first is to evaluate the risk management department and ensure the efficiency of risk management practices in dealing with these risks. The other aspect is the participation of internal audit departments in providing advice, suggestions, and recommendations to the risk management department (Silva, 2021) in his research, through which he sought to present the benefits provided by adopting a compliance and risk management program in public and private companies, in their internal operations and relationships with their sector of activity how they cooperate to mitigate fraud, how compliance and risk management programs achieve practical benefits in risk protection, fraud and corruption mitigation, and new IT governance solutions, such as corporate governance, risk management, and compliance (EGRC). The study (Mursida & Setiyono, 2021) focused on identifying internal audit efficiency measures as represented by one of the European Union countries and their contribution to improving the performance of public entities and the efficiency of public spending. The application of government accounting standards, the efficiency of devices, the role of internal audit, and the internal control system have a partial impact on the quality of information in the financial statements of local governments. The quality of financial reporting information must be improved through the effectiveness of audit activities on financial statements.

Nasal and Gani’s study (2022) evaluated the degree of alignment between internal audit activities and the strategy of an Indonesian social health insurance provider. The primary function of this entity is to collaborate in assessing and mitigating risks, improve adherence to regulations, and offer dependable guidance. The findings demonstrated that internal audits have the potential to function as reliable consultants and collaborators in matters of governance and risk management. Effective internal audit operations enhance the effectiveness of risk management. However, integrating the internal audit function with standard compliance is essential for improving the organization’s strategy's effectiveness. The findings of the study conducted by Sutaryo et al. (2023) indicate that the capability, maturity, experience, and size of the internal audit function have a significant impact on enhancing compliance with accrual
accounting and yielding beneficial outcomes in terms of legislative compliance, gender, and size. The validity and dependability tests demonstrated that the effects persist for most variables. This study encompassed the local governments in Indonesia, totaling 508 local governments throughout various regions and cities. Accredited institutes in Indonesia collected the data. (Liuraman et al. (2023) did a study that verified the favorable impact of competent internal auditing on the internal control system and the quality of financial statements in government agencies in the Northeastern States of Nigeria.

The previous studies that were reviewed provided the research with valuable information, helping to cover some of the theoretical aspects and ensuring the research proceeded in the right direction. After reviewing these studies and analyzing their content, it became clear that most of the previous studies were generally similar in terms of the relationship and impact between the variables. They found a positive relationship between the impact of the study variables, namely the efficiency of internal auditing and the effectiveness of risk management and its role in enhancing compliance. However, they varied in the percentages of impact. This disparity in the percentages is due to the difference in the environment of the samples on which the tests were conducted, the scale used, and the sample size. The current research, like most previous research, uses the questionnaire tool to reach the results, except for some studies that relied on case studies and data analysis in the applied aspect. What distinguishes this study is its unique application in Iraq, specifically addressing the significant weakness in government internal auditing agencies because of political, security and economic events and variables for more than three decades in the public sector, in addition to the scarcity of Iraqi studies of these variables that the current study addressed. This link between the research variables can help researchers and professionals study the impact of these relationships on the internal audit profession. It also represents a severe contribution to assisting Iraqi government agencies in developing this vital oversight body to help government departments carry out their administrative and financial tasks with transparency, ultimately affecting decisions to prepare the final account and the federal general budget with high quality.

1. **Literature Review**

1. **A conceptual approach to internal auditing efficiency in public organizations**

   Internal auditing, a systematic process, is crucial in ensuring that the processes and procedures followed comply with the pre-determined rules and regulations. The internal auditor, a key player in this process, must identify and understand the criteria for comparing the case and collecting evidence related to the existing case. This evidence is then analysed and evaluated, leading to an opinion on the financial and non-financial performance of the organization and the reliability of the audited information. This activity aims to increase value, improve organizational performance, and verify compliance with applicable standards. It represents a disciplined approach to improving and evaluating risk management, control, and governance processes through independent and objective consultations and providing assurances.

   Enhancing the efficiency and effectiveness of operations is a primary goal of internal auditing by providing constructive criticism, (Eden & Leah, 1996) and verifying records, assessing the completeness and objective evaluation of employment policies and internal services to ensure that they are effective and consistent with the organization's policies by analysing these policies, preparing reports and making recommendations that will improve administrative effectiveness (Ridley, 2008), as effectiveness is broader than efficiency, as it focuses on how to influence the results that can achieve the desired organizational goals and
objectives (Eze, 2016), and internal auditing in the public sector has become an essential element in improving the quality of internal control and public sector management. (Hammayo, et al., 2021). Furthermore, the role of an internal auditor is essential for ensuring good governance, risk management, and control systems within an organisation, ultimately contributing to the achievement of its goals. (Kapepo, 2017). Moreover, professional competence refers to the relationship of trust between the internal auditor and both employers and clients, which is based on independence, discretionary judgment, and evaluation by auditors and depends on shared and long-term systems of education, professional training, and development (Fraser, 2023), and controls are activated by auditors themselves who are guided by professional ethics rules, which institutes and professional associations monitor. (Hunziker, 2017), and the figure below shows the requirements for internal audit competence:

![Diagram showing requirements for Internal Audit Competency](https://via.placeholder.com/150)

Figure 1: Internal Audit Competency Requirements

*Academic qualifications* are an absolute necessity that complement the practical experience and personal qualities to produce a professional internal auditor who is efficient and adds value to the organization. This is if he adapts to the evolving changes that take place in the field of the profession, considering that it is a dynamic profession that interacts with society's requirements.
2. The efficacy of risk management in public organisations.

Risk management refers to the strategies, methods, and tools that support identifying and controlling risks to an acceptable level (Alhawari et al., 2012), and it is a set of procedures and methods that guide the organization to reduce risks to achieve organizational goals (Gurtu & Johny, 2021). Prewett & Terry believe that enterprise risk management is an integrated management of risks that integrates with strategy and overall and comprehensive performance by adopting an approach to avoiding or coordinating risks and recognizing that many risks are interconnected (Prewett & Terry, 2018) and that identifying, analyzing, and addressing risks in an organized manner is one of the most critical factors for success in risk management (Firsova & Vaghely, 2018). It is a systematic way to identify any risks that will occur, analyze them, and reduce them to prevent losses to achieve the organization's goals (Munir et al., 2020). Risk-based thinking allows for the choice of degree of planning and control of the quality management system and its components, processes, and activities. In practice, the organization's ability to accept or avoid risks depends on. (Sitnikov & Bocean, 2015)

The involvement of senior management in integrating risk management into the organization, assigning authority, responsibility, and accountability at appropriate levels within the organization, and allocating the necessary resources for risk management will undoubtedly lead to its success (Picciotto, 2020). Risk management must be part of the organization's structure, operations, objectives, strategy and activities, to create value for the organization. (Mešković & Mešković, 2023), Moreover, identifying and mitigating risks is a challenge for any organization. It is no wonder that many contracts and agreements in the public sector require strong evidence of sound risk management practices (Meyer & Torres, 2019). The head of the internal audit department is responsible for the efficient functioning of the department and ensuring that audit work meets the general purposes and responsibilities, evaluates risk management, control, and governance processes, and contributes to their improvement systematically and systematically that leads to promoting appropriate ethics and values within the government institution, ensuring the effectiveness of performance management and accountability, and communicating information about risks, and that internal auditing contributes effectively to risk management, while the internal audit function provides advice and classifies risks to both executive management and the risk management department, as risk management relies on the internal auditor to accomplish its various functions due to his efficiency and experience in assessing and diagnosing risks (Tamimi, 2021).

3. Understanding and Perspectives on Compliance in Public Organisations

Compliance requires comprehensive risk management mechanisms that help identify risks to an organization’s operations, finances, and reputation. Risk management can be activated and aligned with governance by enhancing compliance, allowing organizations to identify and mitigate risks using systematic procedures (Nietsch, 2019). Compliance activities include data collection, reporting, policy development and implementation, monitoring and auditing, and employee training. Furthermore, compliance requires transparency and accountability. Government organizations must operate, disclose, and report transparently to the public, as well as to government agencies and international organizations, and provide clear and accurate information. Accountability ensures that in addition, government organizations promote a culture of compliance to encourage employees to act ethically, report violations, and serve stakeholders. The compliance model emphasizes adherence to legal requirements, effective management of risks, transparent and open communication, responsibility, and ethical standards within governance structures. (Ositashvili, 2024), and in general, compliance in the
context of law and economics is the application of rules, laws or external standards to ensure that actions are in line with applicable rules and specifications, and the concept of compliance has expanded increasingly to include ethical components (Miller, 2014), and thus the basic principles of compliance enter into sustainability management and fall within the responsibility of social organizations (Montiel, 2008), so that a distinction must be made between the social responsibility of governmental organizations, represented by organizational governance, labor practices, the environment, governmental activity practices, human rights and community participation, and thus social responsibility is a contribution made by governmental organizations to sustainable management (Kleinfeld & Martens, 2018), The significance of adherence to regulations was underscored due to the financial crisis that severely impacted the worldwide economy from 2007 to 2008, nearly causing its collapse, and the reason for the crisis is the lack of efficient management of operational risks and ethical behavior of organizations, and as a result, regulators around the world issued a large number of regulations (Kalia, 2019).

Compliance management is generally associated with corporate governance. Governance addresses the processes, procedures, and controls through which organizations operate (Tarantino, 2008). It is also considered the culture, values, mission, structure, policies, processes, and procedures that guide the work of government organizations. According to this concept, the most critical responsibilities of governance are to limit the guiding principles translated into policies, which consist of culture, mission, values, and goals supported by procedures (Vicente & Silva, 2011). Compliance encompasses two tiers: the initial tier is adhering to external regulations imposed on the organization, and the second represents compliance with internal control systems imposed to ensure compliance with external rules (Valkanov & Stavrova, 2019). The information and advisory function also include reporting tasks performed by the compliance officer by reporting directly to the management or the organization's board of directors and submitting regular reports to the relevant authorities in case a breach of the rules has been discovered. (Kibling, 2016). The quality assurance and innovation function is the third compliance function, which is related to quality assurance in the field of training and consulting on the one hand and in the results of document tests on the other hand, in order to monitor compliance promptly or to detect violations of the rules if any (Petsche, 2012), to guarantee the organization's adherence to the applicable rules and regulations, in this context, to improve operations, in addition to enhancing the effectiveness of reporting and monitoring systems (Schwab, 2018).

Compliance policies and regulations enhance operational efficiency and mitigate potential risks (Grote & Rainer, 2021). Adhering to compliance regulations can establish a more secure work environment for employees and the public. For a compliance program to be effective, it must be grounded in practical comprehension of the regulatory environment. Additionally, it requires a political strategy that fosters a genuine collaboration among the various regulatory factions within the organization, thereby ensuring sustained support for the program during its development and execution (Gault & Castillo, 2023). Organizations must achieve a harmonious equilibrium between adhering to regulations and maintaining operational adaptability. Compliance involves following legal and regulatory obligations to reduce risks and protect stakeholders. However, it's important to note that non-compliance can lead to significant risks, both for the organization and its employees. Adhering strictly to regulations might impede operational adaptability, thus diminishing an organization's capacity to react to evolving situations. Organizations fulfilling compliance needs will strive to minimize risks, establish uniform standards, and generate novel ideas (Ositashvili, 2024).
4. Enhancing compliance and optimising internal audit effectiveness in public organisations

An efficient internal audit reduces compliance failures, financial losses, reputational damage, and legal consequences. Compliance risks cover a wide range and may be related to privacy, data protection, information security, use of social networks, or cybersecurity. Governance and risks related to conflict of interest or corruption must be considered, which are aspects sought to be mitigated through the code of ethics. (Plasencia et al., 2023). Moreover, integrating ethics into compliance practices not only helps workers make ethical decisions and reduce violations (Ositashvili, 2024: 162), but also enhances the organization's ethical behavior through compliance with legal and regulatory standards. Adherence to compliance standards is a risk mitigation strategy by proactively addressing compliance-related risks and compliance practices and regulations streamline processes, and improving processes, eliminating risks, and using technology can enhance efficiency, productivity, and performance (Grote & Rainer, 2021). The compliance function is the second line of defense of business functions, primarily managed through tools and guides related to regulatory requirements affecting business activities, training, development, and subsequent compliance. Thus, the goal of improving internal control processes by achieving integration between compliance and internal control procedures turns into a critical factor in enhancing the quality of the risk management system by reducing operational, legal, and reputational risks (Valkanov, 2019).

The audit department is responsible for the efficiency and effectiveness of compliance policies and procedures in the organization. These policies and procedures are subject to periodic review by the internal audit department in coordination between the compliance function officer and the internal audit officer to exchange information. The results reached are presented to the manager responsible for compliance so that he can modify compliance activities promptly and in a way that protects the organization from any risks which ensures the independence of the internal audit function to maintain reliable conclusions that can be interpreted into essential improvements for the organization. Therefore, compliance is responsible for determining the tactical approach that the organization must follow to comply with standards and regulations (Vicente & Silva, 2011). The internal audit program for accounts is likely to include compliance specialists from outside the organization, whether a person or entity assigned to conduct direct compliance assessments, or "Advisors" means a person or entity qualified to provide advice on achieving compliance, "Guarantors" means a person or entity qualified to provide advice and guidance on achieving assurance, or (Competence Partners) means an entity that provides guidance and direction on achieving compliance and enhancing capability. (Turner Am, 2016)

5. They measured the study variables and tested the hypotheses.

6. Study methodology.

In this discussion, we will focus on the study technique, which is crucial for establishing the foundation of scientific research. We will then outline the objectives, research topic, questions, hypotheses, and the proposed strategy for the research. Enhancing and optimizing internal audit efficiency in public organizations.

The study community consists of internal auditors in Iraqi public sector units. The research sample was unintentional (random) and was selected by distributing an electronic questionnaire to auditors in government departments, with 283 questionnaires. The data analysis, conducted meticulously using SPSS version 26, was comprehensive and thorough. The validity and reliability of the questionnaire have been verified. based on factor analyses,
ensuring a robust understanding of the sample. Both simple and multivariate linear regression were employed to assess the study hypotheses, further bolstering the confidence in our findings.

7. The importance of studying
Internal auditing in Iraq must improve its performance, especially in the Iraqi public sector. This has led to cases of economic resource waste over the decades, and there are no fundamental reforms to this critical function. Therefore, we see that the importance of the study lies in raising the efficiency of internal auditing bodies in the Iraqi public sector and enhancing risk management, which needs to be improved. The study results, when implemented by you, will contribute to solving some problems, including improving compliance, thereby making you an integral part of the solution.

8. The study's purpose.
The study aims to provide a theoretical discussion of the literature about the professional competence of internal auditing in the Iraqi public sector. It also aims to examine the effectiveness of risk management and demonstrate the crucial role these two functions play in improving compliance with laws, regulations, and instructions. The primary goal of this program is to enhance the efficiency of the internal audit function in the public sector of Iraq, potentially revolutionizing the way public funds are managed and corruption is combated. This will help minimize the misallocation of public funds and combat corruption in all its manifestations. Consequently, it will improve compliance, facilitate the issuance of the final account of the Iraqi state, and enable the preparation of highly accurate federal general budgets for future years.

9. The problem of studying
Professional organizations, such as the Institute of Internal Auditors in the United States of America AII, are actively seeking to set standards that can elevate the efficiency of internal auditing by evaluating the effectiveness of risk management. This critical role is designed to bolster compliance with laws, regulations and instructions, thereby improving the quality of financial statements. However, the lack of obligation for internal audit agencies in the public sector to apply these standards, except for the draft quality standards in auditing issued by the United Nations Office in Iraq to assist inspectors general in November 2015, has hindered the activation of this project. Despite the cancellation of these offices on 10/8/2019 by the Iraqi Council of Representatives, the important standards it contains could have significantly contributed to enhancing the efficiency of internal auditing and supporting the effectiveness of risk management, thereby improving the quality of compliance. Therefore, the current study, with its potential to fill this gap, is based on the following questions:
1- Is there a relationship between the efficiency of internal auditing and improving compliance with laws, regulations, and instructions?
2- Is there a relationship between the effectiveness of risk management and improving compliance with laws, regulations, and instructions?
3- Is there a relationship between internal audit efficiency, risk management effectiveness, and improved compliance?

10. The study hypotheses
Through the questions that were addressed in the study questions, the current study is based on the following hypotheses:
Hypothesis 1: There exists a substantial correlation between the efficiency of internal auditing and improving compliance with laws, regulations, and instructions by government units.

Hypothesis 2: There exists a substantial correlation between the effectiveness of risk management and improving compliance with laws, regulations, and instructions by government units.

Hypothesis 3: There exists a substantial correlation between the efficiency of internal auditing and the effectiveness of risk management and improving compliance.

11. Testing the study hypothesis

The first hypothesis:

We will apply a simple linear regression analysis in accordance with the following regression model to test this hypothesis:

\[ P_{ci_t} = B_0 + B_1 E_{Ai_t} + e_{it} \]  

whereas:

- \( P_{ci_t} \) = the dependent variable (improving compliance).
- \( e_{it} \) = Estimation errors or so-called statistical residuals.
- \( B_0 \) = The constant of the regression equation, which represents the value of the dependent variable when the value of the independent variable is equal to zero.
- \( B_1 E_{Ai_t} \) = The slope of the regression function, which measures the effect of the independent variable (efficiency of internal auditing) on the dependent variable (efficiency of internal auditing).

Using the statistical program SPSS, the results were as follows:

**Table 1: Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving Compliance</td>
<td>56.084</td>
<td>7.678</td>
<td>283</td>
</tr>
<tr>
<td>Efficiency of Internal Auditing</td>
<td>62.554</td>
<td>9.477</td>
<td>283</td>
</tr>
</tbody>
</table>

The table above describes the variables of the first central hypothesis, its arithmetic means, standard deviation, and number of observations.

**Table 2: Correlation matrix between the independent variable and the dependent**

<table>
<thead>
<tr>
<th></th>
<th>Improving Compliance</th>
<th>Efficiency of Internal Auditing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>Improving Compliance</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Efficiency of Internal Auditing</td>
<td>.619</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>Improving Compliance</td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>Efficiency of Internal Auditing</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>Improving Compliance</td>
<td>283</td>
</tr>
<tr>
<td></td>
<td>Efficiency of Internal Auditing</td>
<td>283</td>
</tr>
</tbody>
</table>
The table above displays the variables in the regression matrix. The correlation coefficient achieved a value of 61.9% with a significance level of 0.00. This correlation is deemed to be statistically average. The association between the variables is strongly and statistically significant, as indicated by a Sig value of 0.00 for both the independent and dependent variables.

Table 3: Summary of the first main hypothesis model

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.619&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.383</td>
<td>.381</td>
<td>6.040</td>
<td>.383</td>
<td>174.586</td>
<td>1</td>
<td>281</td>
<td>.000</td>
<td>1.527</td>
</tr>
</tbody>
</table>

<sup>a</sup> Predictors: (Constant), Efficiency of Internal Auditing
<sup>b</sup> Dependent Variable: Improving Compliance

The provided table displays the Pearson correlation coefficient, which measures the strength and direction of the linear relationship between the dependent variable and the independent variable. The coefficient of determination, R Square, has a value of 0.383, which represents the level of explanatory power of the model used. The data suggests that the first independent variable, internal audit efficiency, explains 38.3% of the variation in the dependent variable, which is the improvement of compliance. The estimation error's standard deviation, which is 6.040, is a small value that highlights the robustness of the model.

Table 4: Variance testing the first hypothesis<sup>a</sup>

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>6371.269</td>
<td>1</td>
<td>6371.269</td>
<td>174.586</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>10254.695</td>
<td>281</td>
<td>36.494</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16625.965</td>
<td>282</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> Dependent Variable: Improving Compliance
<sup>b</sup> Predictors: (Constant), Efficiency of Internal Auditing

The table above presents the results of the ANOVA analysis of variance used to assess the significance of the regression. The calculated F value of 174.586 exceeds the tabular value based on the degrees of freedom (282,1). Additionally, the level of significance of the test, Sig, is 0.000, which is lower than the acceptable error threshold of 5% commonly used in the social sciences. Hence, the regression analysis is statistically significant, suggesting the presence of a correlation between the initial independent variable and the dependent variable.
Table 5: Standardized and unstandardized coefficients to test the first hypothesis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>24.712</td>
<td>10.291</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Efficiency of Internal Auditing</td>
<td>.502</td>
<td>.619</td>
<td>13.213</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Improving Compliance

This table displays the coefficients for standard and non-standard regression functions, the standard error and the T-test value. Additionally, it includes the probability value of the tests, which is a statistical function. The regression equation constant had a value of 22.943, whereas the slope of the regression equation was 50.2%. This indicates that manipulating the independent variable (Improving Compliance) significantly impacted the dependent variable (Efficiency of Internal Auditing), as demonstrated by the coefficient B. The positive coefficient value implies a direct relationship between the independent and dependent variables. To clarify, a one-degree rise in the first independent variable (Efficiency of Internal Auditing) results in a 50.2% increase in the dependent variable (improving compliance) while keeping the other independent variables unchanged. The table above indicates that the significance level of the independent variable, T, achieved 0.00, which is lower than the allowed error of 0.05 in the field of social sciences. The data from the sample strongly supports the alternative hypothesis, providing statistical evidence of a proven effect. This leads to the conclusion that the efficiency of internal audits considerably impacts compliance with government laws, rules, and directives regarding the laws, regulations, and orders issued by government entities. The graphs illustrating the normal distribution of the dependent variable, precisely the improving compliance, provide an overview of the primary event displayed below.
Figure 2: Scatterplot of the dependent variable (improving compliance)
The diagram above illustrates the normal distribution of data dispersion for the dependent variable (increasing compliance). There is no variability in the data for this variable.

Figure 3: A scatterplot depicts the dependent variable (improving compliance).
The graph above illustrates the normal distribution of data for the dependent variable (improving compliance). It is evident that there is no variability in the data for this variable.
The second hypothesis (There exists a substantial correlation between the effectiveness of risk management and improving compliance with laws, regulations, and instructions by government units).

We will apply a simple linear regression analysis in accordance with the following regression model to test this hypothesis:

\[ P_{cit} = B_0 + B_1 ERM_{it} + e_{it} \]  \hspace{1cm} (2)

whereas:

- \( P_{cit} \) = the dependent variable (improving compliance).
- \( e_{it} \) = Estimation errors or so-called statistical residuals.
- \( B_0 \) = The constant of the regression equation, which represents the value of the dependent variable when the value of the independent variable is equal to zero.
- \( B_1 ERM_{it} \) = The slope of the regression function, which measures the effect of the independent variable (effectiveness of risk management) on the dependent variable (improving compliance).

Using the statistical program SPSS, the results were as follows:

Table 6: Correlation matrix between the independent variable and the dependent

<table>
<thead>
<tr>
<th></th>
<th>Improving Compliance</th>
<th>Effectiveness of Risk Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improving Compliance</td>
<td>1.000</td>
<td>.395</td>
</tr>
<tr>
<td>Effectiveness of Risk Management</td>
<td>.395</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improving Compliance</td>
<td>.</td>
<td>.000</td>
</tr>
<tr>
<td>Effectiveness of Risk Management</td>
<td>.000</td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improving Compliance</td>
<td>283</td>
<td>283</td>
</tr>
<tr>
<td>Effectiveness of Risk Management</td>
<td>283</td>
<td>283</td>
</tr>
</tbody>
</table>

The table above displays the variables in the regression matrix, indicating a correlation coefficient of 39.5%. The link between the two variables is directly proportional, as indicated by their positive values. Furthermore, this relationship is statistically significant, with a Sig value of 0.00 for the second independent variable and the dependent variable.

Table 7: Summary of the second main hypothesis model

<table>
<thead>
<tr>
<th>Model Summaryb</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>.395a</td>
<td>.156</td>
<td>.153</td>
<td>7.065</td>
<td>.156</td>
<td>52.074</td>
</tr>
</tbody>
</table>

\[ a. \text{Predictors: (Constant), Effectiveness of Risk Management} \]
\[ b. \text{Dependent Variable: Improving Compliance} \]
The provided table displays the Pearson correlation coefficient between the dependent variable and the second independent variable. The second independent variable, risk management efficacy, accounts for 15.3% of the variation in the dependent variable, improving compliance. The standard deviation of the estimation error was 7.065, indicating a small value. A lesser occurrence of this type of error is statistically preferable and indicates the model's strength.

Table 8: Variance testing the second hypothesis

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>2599.383</td>
<td>1</td>
<td>2599.383</td>
<td>52.074</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>14026.581</td>
<td>281</td>
<td>49.917</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16625.965</td>
<td>282</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Improving Compliance
b. Predictors: (Constant), Effectiveness of Risk Management

The table presented above showcases the outcomes of the ANOVA analysis, which was conducted to assess the significance of the regression. The calculated F value, 52.074, exceeds the tabular value based on the degrees of freedom (283.1). Additionally, the mean square of the residuals is 2599.383 at a significance level of 5%. The test's significance level denoted as Sig was 0.00, indicating a value lower than the allowable error threshold in the field of social sciences. Hence, the regression analysis demonstrates statistical significance, affirmiting the presence of a correlation between the second independent variable (efficacy of risk management) and the dependent variable (increasing compliance).

Table 9: Standardized and unstandardized coefficients to test the second hypothesis

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>41.242</td>
<td>2.099</td>
<td>19.646</td>
<td>.000</td>
</tr>
<tr>
<td>Effectiveness of Risk Management</td>
<td>.272</td>
<td>.038</td>
<td>.395</td>
<td>7.216</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Improving Compliance

The table above presents the coefficients for both the standard and non-standard regression functions, as well as the standard error and T-test value. Additionally, it includes the probability value for the statistical function tests. The table indicates that the regression equation has a constant value of 41.242 and a slope value of 27.2%. The coefficient B determines the impact of the independent variable (effective risk management) on the dependent variable (improving Compliance). The positive coefficient value implies a direct relationship between the two variables, the independent and the interactive. To clarify, a one-unit rise in the dependent variable (compliance improvement) results in a 27.2% increase in the second independent variable (efficiency of risk management), while keeping all other independent variables same. The table above indicates that the second independent variable's significance level of T was
0.00, which is lower than the allowed error of 0.05 in the social sciences. The sample data provides strong evidence supporting the alternative hypothesis of a statistically significant effect, leading to the conclusion that risk management greatly improves government units’ adherence to laws, rules, and directives.

Overview of the primary event displayed below is the graphs illustrating the normal distribution. The graphs illustrating the normal distribution of the dependent variable, precisely the improving compliance, provide an overview of the primary event displayed below.

![Normal P-P Plot of Regression Standardized Residual](image)

**Figure 4: Scatterplot of the dependent variable (improving compliance)**

The diagram above illustrates the normal distribution of data dispersion for the dependent variable (improving compliance). There is no variability in the data for this variable.
Figure 5: A scatterplot depicts the dependent variable (improving compliance).
The graph above illustrates the normal distribution of data for the dependent variable (improving compliance). It is evident that there is no variability in the data for this variable.

The third hypothesis (There exists a substantial correlation between the efficiency of internal auditing and the effectiveness of risk management and improving compliance).

We will apply a multiple linear regression analysis in accordance with the following regression model to test this hypothesis:

\[ PC_{it} = B_1 IA_{it} + B_2 ER_{it} + e_{it} \] (3)

whereas:

- \( PC_{it} \) = the dependent variable (improving compliance).
- \( e_{it} \) = Estimation errors or so-called statistical residuals.
- \( B_0 \) = The constant of the regression equation, which represents the value of the dependent variable when the value of the independent variable is equal to zero.
- \( B_1, B_2 \) = Slope of regression function.
- \( B_1 IA_{it} \) = The slope of the regression function, which measures the effect of the independent variable (efficiency of internal auditing) on the dependent variable (improving compliance).
- \( B_2 ER_{it} \) = The slope of the regression function, which measures the effect of the independent variable (effectiveness of risk management) on the dependent variable (improving compliance).

Using the statistical program SPSS, the results were as follows:
Table 10: Standardized and unstandardized coefficients to test the third hypothesis\(^a\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>24.26</td>
<td>0</td>
<td>2.447</td>
</tr>
<tr>
<td>Efficiency of Internal Auditing</td>
<td>.476</td>
<td>.047</td>
<td>.587</td>
</tr>
<tr>
<td>Effectiveness of Risk Management</td>
<td>.038</td>
<td>.040</td>
<td>.055</td>
</tr>
</tbody>
</table>

\(^a\) Dependent Variable: Improving Compliance

The table above displays the tests' standard regression coefficients, standard error, T-test, and probability values. It also includes the coefficients of variation and tolerance coefficients, which indicate that there is no issue of multicollinearity between the variables. This is evident from the inflation coefficients, which are below 3. Specifically, the first independent variable (Efficiency of Internal Auditing) has an inflation coefficient of 1.506, while the second independent variable (Effectiveness of Risk Management) also has an inflation coefficient of 1.506. The equation of the regression line can be derived from the data presented in the table above in the following manner:

\[
\text{Predicted (PC)} = 0.587 \times \text{(IAE)} + 0.055 \times \text{(ERM)} + e_{it} \quad \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdOTS

Overview of the primary event displayed below is the graphs illustrating the normal distribution The graphs illustrating the normal distribution of the dependent variable, precisely the improving compliance, provide an overview of the primary event displayed below
Figure 6: A scatterplot depicts the dependent variable (improving compliance).

The graph above illustrates the normal distribution of data for the dependent variable (improving compliance). It is evident that there is no variability in the data for this variable.

12. Conclusion

The results above illustrate that internal auditing functions as a service activity to deliver impartial assurances to management and the board of directors. It guarantees the accurate implementation of rules and controls, the efficient and productive functioning of the system, and the capacity to recognise strengths and weaknesses and handle potential dangers. The internal audit function carries out these activities by promptly examining, handling, and transmitting relevant information to decision-makers. This role of internal auditing not only assists management in completing its obligations but also instils a sense of security and confidence in the management and the board of directors, which is crucial in establishing internal controls to safeguard the organisation's assets. Weekes' study (2020) affirms that risk management involves systematically identifying, analysing, and evaluating probable events to prevent losses or minimise their impact.

Risk management enables the timely identification of issues and rectifying the underlying causes. However, risk management can also be seen as dealing with the aftermath of accidents or disasters, and risks will inevitably arise regarding strategic planning in both the public and private sectors. This is consistent with the results of completed investigations by Prewett & Terry (2018) and Munir et al (2020). It is essential for organisations and all departments to commit to implementing the risk management process, being prepared for each plan by anticipating the impact and severity of risks and finding ways to mitigate the consequences. The risk management process goes beyond managing threats; it is a comprehensive approach considering the organisation's future, plans, resources, projects, performance, energy efficiency, and effective stakeholder relationship management. Ensuring adherence to regulations in public sector institutions is a crucial factor in the organisation's success. It strives to achieve complete and efficient compliance with all applicable legal, ethical, and professional standards. This
effort aims to enhance the organisation's reputation and improve the accuracy of financial statements, aligning with the findings of Valkanov & Stavrova's study (2019). Consequently, if government organisations comply with these standards, it will facilitate the execution of tasks by internal oversight bodies, such as internal oversight and auditing bodies and the country's supreme oversight bodies. This dedication also aids in bolstering public trust in the organisation. The phrase implies that the organisation should adopt compliance as a societal obligation in its culture, mission, and values to guarantee long-term viability and uninterrupted operations.

References


