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Factors Affecting the Internal Audit Effectiveness: Empirical Evidence from the Professionals' Perception within an Emerging Country

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Abstract. *Considering the continuous challenges and requirements brought by economic environmental changes, coupled with the constant necessity of compliance with legal standards and amendments, the role of Internal Audit has expanded, synchronously with an extensive focus on increasing its effectiveness. Hence, the key purpose of the current research is to observe and discuss the internal audit professionals' perception concerning the potential factors, argued as possible indicators of internal audit quality by scientific literature, impact towards the internal audit processes effectiveness. The paper investigates data acquired through a survey-based questionnaires as main research method tool, addressed to professionals engaged in internal audit and risk management activities within Romanian corporate sector. Overall, 34 collected questionnaires during January 2025 are analyzed and leveraged in testing the constructed research hypothesis. The quantitative analysis is conducted via linear regression analysis, bolstered by descriptive and frequency analysis, and by correlation matrix approach. The primary results suggests that the respondent's perception implies that Internal Audit independence and Internal Audit compliance and competences may possess a contributory role in enhancing of Internal Audit Effectiveness, in the context of an emerging economy. Thus far, the present study demonstrates several implications for research in the field of Internal Audit comprising both practical and theoretical outcomes. The research may contribute with cohesive results in the existing literature area and supports future research perspectives.*

Keywords: internal audit, effectiveness, emerging economy, internal audit independence, internal audit competence.

Introduction

In the wake of past decades high-profile corporate misconducts, stakeholders are challenging a reform in good corporate governance practices, increasing the internal audit function to an outstanding position within organizations (Ferreira *et al*., 2024). Beyond its traditional role, concerning the internal control and compliance with regulations, the internal audit is focusing on encouraging good governance practices as well, synchronized with a predilection in effectiveness improvement. Having regard to these considerations, the current study's purpose is to investigate and observe the internal audit professionals' perception on factors affecting the effectiveness of internal audit.

In consideration of regulatory framework requirements and current volatility of the economic environment, internal audit is perceived as a pivotal corporate governance mechanism, within the scope of providing consultancy and advisory services within organization (Alqudah *et al*. (2023). Aligned with organizations' sustainability goals, the internal audit has widened its boundaries by being involved in risk management activities (Liu *et al*., 2024).

The literature in the matter of internal audit's role and its effectiveness remains scarce, despite the increasing interest from academics, Musah *et al*. (2025) suggesting that the matter of effectiveness of internal audit needs further exploration. In this research, the focus is on how the

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professionals perceive the influence of various factor towards the internal audit performance. Prior studies highlight the gap in the literature in regards of considering the internal audit professional's perceptions of enhancing internal audit effectiveness. Consequently, the research hypothesis is constructed as follows: *RH: Professionals' perception of the internal audit effectiveness is significantly impacted by internal audit quality indicators.*

The current paper presents a quantitative analysis approach, using a survey-based questionnaires as main research method. The data was collected from professionals engaged in internal audit and risk management activities within Romanian territory. All collected responses are provided by individuals with strong qualifications to address the questionnaire variables.

This study is organized as follows: Section 2 covers a comprehensive literature review of the current publications in the studied topic field, unveiling the problem statement of the research and hypothesis formulation. Section 3 consists of research methodology, followed by Section 4 with a discussion of the main results. The conclusions are outlined in Section 5.

Literature review

Internal Audit has experienced substantial innovation on a global scale in last few years, shifting its focus on offering a widened range of services in terms of consulting and auditing. Contributing to the organizations' value, internal audit has adapted by investing significant resources to increase the overall effectiveness of its process and activities. Effectiveness of Internal Audit processes is measured in the Internal Audit professionals' capability to align and meet the set goals within an organization, as argued by Alqudah *et al*. (2023).

From a corporate perspective, an effective Internal Audit may support an organization in accomplishing its visions. Prior studies, namely Tawfik *et al*. (2022), Internal Audit's pivotal roles are exerted through assuring compliance policies and regulations, commitment to procedures and strategy designs, or assess the effectiveness of internal controls system. Hence, it is crucial for internal audit to invest in carrying out its responsibilities at a high satisfactory degree for achieving the aspirational outcomes at organizational level.

According to Wu *et al*. (2024), within Internal Audit's primary roles may be encountered the assurance and guarantee of efficiency and effectiveness of the business operations, strengthening the internal controls and governance processes. This is mainly due to the fact that there is a positive association of controls practices effectiveness and the relationship between good corporate practices and high-quality Internal Audit function. Similar findings are presented by Kai *et al*. (2022). The authors assert that a higher rate of set goals within internal audit objectives may be direct proportional with the internal audit effectiveness rate.

Furthermore, an extensive attention in scientific literature is drown to the public sector, revealing that the achievement of Internal Audit Effectiveness is limited, but nevertheless with a considerable contribution in detection of irregularities. Nerantzidis *et al*. (2022) argues that the public sector is accompanied by expansive goals, raising a difficulty in measuring the accomplishment level, therefore a less realistic evaluation of Internal Audit effectiveness. A perspective on Internal Audit effectiveness consequences is brough by Assakaf *et al*. (2018) through a structured literature review approach, revealing its supportive and fundamental role in uncovering discrepancies in compliance with regulatory frameworks.

One of the most debated matters in contemporary literature regarding the field of internal audit are concerning the factors with potential impact toward the effectiveness of internal audit. Thiery *et al*. (2023) argues that effectiveness is dependent of competencies and independence, compliance with standards and independence within audit activities being perceived as a straight indictor of audit quality. The independence subject is also being observed in the study conducted Coetzee *et al*. (2023) on the public sector context, suggesting that the internal auditors' activity should be independent within organizations in order to attain an elevated degree of Internal Audit effectiveness. In the same line, Gustafsson Nodin (2023) conducted a study under the aim of observing the impact of independence matter towards internal audit activities within organization, under the consideration that attaining independence is one of the most recent concerns within the internal audit society. This is fundamentally due to the requirements of internal audit activity *per se*, as there is an imperative need of critical and insightful rationale from auditors' angle.

Wan-Hussin *et al*. (2021) argues that internal audit practices may serve as indicator of internal audit effectiveness, arguing that compliance with standards of professional practice in internal audit, integration of critical and ethical reasoning are clear markers of an effective internal audit implemented within the organization. Similar arguments are proposed by Thiery *et al*. (2023). The authors assert that beside the compliance with audit standards, the seniority level and expertise in the domain, transparency in reporting and financial awareness, may also be considered in the measurement and evaluation of internal audit effectiveness. Findings reveal that there is a positive relationship between internal audit quality and auditors' competence and independence, with considerable impact on internal audit effectiveness as well.

The current research is performed in line with prior literature in the field of internal audit effectiveness (Ferreira *et al*., 2024; Alqudah *et al*., 2023; Beuren *et al*., 2023; Thiery *et al*., 2023), approaching the matter of factors impacting the internal audit activity within its normal course, in the context of continuous challenges and requirements brought by environmental changes, leveraging questionnaires in collecting data for supporting a quantitative analysis method.

The focus of the present research concentrates on organization developing their activities within Romanian territorial boundaries, characterized as an emerging economy. Giving this particular context, in which internal audit regulation is recommended to integrate contemporary updated, the current study's distinctiveness is secured.

Methodology

Data collection and questionnaire design

This main objective of the study is to observe the perception of internal audit and risk management professionals on factors impacting the internal audit effectiveness and output quality. The design used to collect insight from the study's sample and acquire data reflecting the experts' awareness is represented by a structured questionnaire, through which the primary data is acquired. In the process of assembling the questionnaire structure, alongside the developed extensive review of the literature, opinions of experts and academicians working in the field of internal audit and risk management with a high level of professional experience were consulted.

The questionnaire design consists in the *first section* designated in gathering demographic information regarding gender, age range, educational background, professional qualifications and experience, affiliated department, role in organization and company's main activity; and the *second section* appointed to provide information concerning the internal quality effectiveness.

The data is obtained during the month of January 2025, through the web-based form of the questionnaire. The participants for the study were approached via LinkedIn using the convenience and snowball sampling method (Alabdahi *et al*., 2024), recognized for its effectiveness in securing prompt responses. The collecting data method designed on purpose for limiting the sample to only individuals with reliable qualification background in the field of internal audit and risk management, in order to achieve a more proficient opinion and perspective towards analyzed subject.

Variables Measurement and Regression design

The current study engages Internal Audit Effectiveness as dependent variable, further noted as IAE. The dependent variable is constructed based on the perception of professionals in the field of internal audit and risk management towards the internal audit impact on corporate governance activities. Prior research argued that internal audit might have positive impact on corporate governance performance and enhancement within organizations. (Ferreira *et al*., 2024). The measurement of IAE is performed through a 5 Likert scale (1 = strongly disagree, 5 = extremely agree), rated by each of the individuals as part of the sample study.

The considered independent variables consist in factors that may have an impact towards internal audit effectiveness, as uncovered in prior studies in the field conducted by Ferreira *et al*. (2024), Alqudah *et al*. (2023), Beuren *et al*. (2023) and Thiery *et al*. (2023). All these variables are measured though a 5 Likert scale absolute values. From the variety of factors impacting the internal audit effectiveness, there is considered the perception towards Internal Audit independence (IA_INDEPENDENCE), Internal Audit competence, capabilities and expertise (IA_COMPETENCE), Internal Audit adaptability to economic environment challenges and changes (IA_ADAPTABILITY), management support in Internal Audit activities (MANAGEMENT_SUPPORT), and Internal Audit integrity (IA_INTEGRITY).

Table 1 provides the variables considered for the study, along with the measurement's description for each of the variables included in the current analysis.

Table 1. Variables utilized in hypothesis testing

Variables	Description	Measurement
Dependent variable		
IAE	Internal Audit Effectiveness rated based on its impact on corporate governance performance and enhancement	5 Likert scale
Independent variables		
IA_INDEPENDENCE	Internal audit independence necessity	5 Likert scale
IA_COMPETENCE	Internal audit competence and expertise impact	5 Likert scale
IA_ADAPTABILITY	Internal audit adaptability to economic environment	5 Likert scale
MANAGEMENT_SUPPORT	Management support in internal audit activities	5 Likert scale
IA_INTEGRITY	Internal audit necessity of integrity	5 Likert scale

Source: Authors' own research adapted from Caraiani *et al*. (2023).

To ascertain the factors impacting the internal audit effectiveness, the following linear regression equation is developed to test the established research hypothesis:

$$IAE_i = \alpha 0 + \beta 1 * IA\_INDEPENDENCE_i + \beta 2 * IA\_COMPETENCE_i + \beta 3 * IA\_ADAPTABILITY_i + \beta 4 * MANAGEMENT\_SUPPORT_i + \beta 5 * IA\_INTEGRITY_i + \varepsilon_i, \quad (1)$$

Where:

$\alpha 0$: constant;

$\beta 1 \ldots \beta 5$ $\alpha 1$ to $\alpha 5$ regression coefficient;

εi: error term.

Results and discussions
Descriptive Statistics
Considering the demographical data, it could be observed that the sample seem to be evenly distributed. In total, 34 questionnaires were received from specialists with internal audit or risk management expertise background. The female respondents are 17 (meaning 50% of the entire population) and male respondent are 14 (41.2% of the population), three (8.8%) respondents opting for option “prefer not to response”. The age rank between 25 and 35 years old depicts 50% of the population, closely followed by 26-35 age rank (representing 41.1% from the total population), with more than 10 years of experience in the internal audit or risk management profession, suggesting that the questionnaire is approached appropriately. The entire sample of respondents had attained a bachelor's degree, out of which 67,6% a master’s degree. Also, the entire population are members of professional bodies, possessing reliable qualifications background. The dominant sample is represented by member of Chamber of Financial Auditors of Romania (52.9%), followed by 44.1% of the respondents by the members of The Institute of Internal Auditors.

The descriptive statistics results are presented in Table 2. Likewise in prior research conducted by Beuren *et* al. (2023), Ferreira *et al*. (2023) and Nalukenge *et al*. (2021), considering the univariate analysis results, giving by Skewness and Kurtosis, the data fulfilled the assumption of normality. Both indicators are fit within the statistically agreed value intervals, (-3.00;3.00) for Skewness and (-8.00;8.00) for Kurtosis.

Table 2. Variables utilized in hypothesis testing

Variables	Min.	Max.	Mean Stat.	Std. Dev. Stat.	Var. Stat.	Skewness	Kurtosis
IAE	3	5	4.12	0.409	0.168	0.936	2.658
IA_INDEPENDENCE	3	5	4.44	0.561	0.315	-0.303	-0.900
IA_COMPETENCE	3	5	4.32	0.589	0.347	-0.198	-0.551
IA_ADAPTABILITY	1	5	4.35	0.917	0.841	-1.789	4.064
MANAGEMENT_SUPPORT	4	5	4.59	0.500	0.250	-0.375	-1.979
IA_INTEGRITY	4	5	4.79	0.410	0.168	-1.523	0.335

Source: Authors’ own research.

The top-rated perceived factor that may impact the internal audit effectiveness is represented by professional’s’ integrity in developing internal audit activity within organizations (mean 4.79). Subsequently, the responses indicate a greater focus on management support provided to internal audit initiatives (mean 4.59), followed by internal audit independence necessity in conducted activities (mean 4.44). Similarly, the respondents also considered the internal audit adaptability to economic environment challenges and changes, and internal auditors’ competencies and capabilities.

Reliability and Correlation Analysis
Consistent with prior studies carried out by Beuren *et* al. (2023) and Onay (2021), the Cronbach Alpha coefficient approach is utilized in indicating the reliability of the internal consistency of the construct information. The results of the analysis denote that there is confirmed the internal consistency of engaged scales to measure the construct, the Alpha indicator recording a value over the minimal threshold of 0.70. Giving the results presented in Table 3, it is further considered that the questionnaire tool is confirmed as being reliable with a guaranteed internal consistency.

Table 3. The reliability of research findings

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.708	0.752	5

Source: Authors' own research.

An analysis of the correlation between the considered variables is performed through the Pearson coefficient. Table 4 summarizes the results of the bivariate analysis. Pearson's correlation test indicates the relationship between the engaged variables in the current research. The statistical threshold of 0.8 for multicollinearity between variables is not exceeded, the presumptive risk of multicollinearity being reduced.

Table 4. Bivariate correlation analysis

Variables	1	2	3	4	5	6
IAE	1	0.466**	0.559**	-0.356*	0.096	0.329
IA_INDEPENDENCE	0.466**	1	0.197	-0.106	0.158	0.284
IA_COMPETENCE	0.559**	0.197	1	-0.430*	-0.089	0.275
IA_ADAPTABILITY	-0.356*	-0.106	-0.430*	1	0.128	-0.043
MANAGEMENT_SUPPORT	0.096	0.158	-0.089	0.128	1	0.165
IA_INTEGRITY	0.329	0.284	0.275	-0.043	0.165	1

Note: *Correlation is significant at the 0.05 level (2-tailed)
**Correlation is significant at the 0.01 level (2-tailed)

Source: Authors' own research.

Regression Analysis

The hypothesis of the current research *RH: Professionals' perception of the internal audit effectiveness is significantly impacted by internal audit quality indicators* is tested through the regression model performed. Table 5 summarizes the engaged regression model considered in the present study, outlining the association between internal audit effectiveness (IAF) and factor considered with a possible potential impact on internal audit activities development in organizations. A positive association is clearly noticed between IAF and internal audit independence (IA_INDEPENDENCE), by recording t – value 2.248 and reaching 0.033 statistical probability value, which does not exceed the significance threshold of 0.05 of statistical significance. Prior study performed by Liu and Xia (2024), Onay (2021), and Hegazy and Farghaly (2021), also identified possible impact on internal audit effectiveness degree generated by the independent internal audit body.

Similarly to Nalukenge *et al.* (2022), the current results presented in Table 5, suggest that internal auditor competence and capabilities, presented by coefficient for IA_COMPETENCE, may positively impact the internal audit effectiveness, the results of the analysis being statistically significant (Sig. = 0.016, t = 2.557). This result is expected, as outlined by previous research in the field, the occurrence of innovative approaches internal audit activities could enhance the continuous expansion and improvement of internal audit effectiveness (Lhuillery *et al*., 2023). Thiery *et al*. (2023) also argues that internal auditors' competence should enhance the understanding of internal audit practices, contributing to an improvement in audit process and output, therefore an effective internal audit.

Table 5. Internal Audit Effectiveness regression analysis

Independent variables	Internal audit effectiveness (IAF)	Collinearity statistics	
		Tolerance	VIF
IA_INDEPENDENCE	**0.033 (t = 2.248)**	0.884	1.131
IA_COMPETENCE	**0.016 (t = 2.557)**	0.734	1.362
IA_ADAPTABILITY	0.327 (t = -0.998)	0.801	1.249
MANAGEMENT_SUPPORT	0.563 (t = 0.586)	0.927	1.079
IA_INTEGRITY	0.492 (t = 0.696)	0.841	1.189
N (observations)	**34**		
R Square	**0.477**		
Sig. F	**0.002**		
Durbin-Watson	**2.406**		

Source: Authors' own research.

The positive, but not statistically significant influence of internal audit adaptability to economic environment challenges, management support in internal audit activities and internal auditor's integrity towards internal audit effectiveness may be argued by the fact that the number of respondents is limited, which may cause a direct impact on the rigidity of the regression function.

Additionally, and in line with Nalukenge *et al.* (2022), from a prudent approach, the study also considers the existence of potential multicollinearity between variables. Table 5 also present the result of Variance Inflation Factors (VIF) indicator's returns and Tolerance indicator's values. The statistically aggregated threshold for VIF validation is considered 5, while regarding Tolerance is considered 0.1. The results indicate that the issue of multicollinearity is not confirmed by the results, all VIF values being bellow 5 and all Tolerance values being at least 0.1.

Conclusion

The aim of the study is to investigate and observe the professional perceptions on factors that may influence the effectiveness of internal audit. The proposed quantitative analysis engages questionnaires addressed to the experts with qualified experience in internal audit, collecting the primary data further used in the econometric analysis. The findings of the presented work suggest that there may be a positive relationship between Internal Audit quality indicators and Internal Audit effectiveness in Romanian corporate landscape.

The present study demonstrates several implications for research in the field of Internal Audit comprising both practical and theoretical outcomes. First, current research exposes the influence of factors, for instance Internal Audit independence, Internal Audit competence, capabilities and expertise, Internal Audit adaptability to economic environment challenges and changes, management support in Internal Audit activities, and Internal Audit integrity, on enhancing Internal Audit Effectiveness within Romanian organization from the private sectors. This answers to the existing scientific literature's call for an expanded contribution in the field of internal audit.

Second, as an implication of the current study's findings, the respondent's perception implies that Internal Audit independence and Internal Audit compliance and competences may possess a contributory role in enhancing of Internal Audit Effectiveness, in the context of an emerging economy. Therefore, the organizations should devote more effort in allocating additional resources for assuring a continuous evolution of Internal Audit, aligned with regulatory framework requirements. Furthermore, the summary of results suggests that the existence of a supporting and promoting organizational environment of internal audit independence, may positively impact the effectiveness of Internal Audit within Romanian business sector. Hence, the validation of the set research hypothesis is secured by the presented results. The support of existing literature in the field is also obtained (Ferreira *et al*., 2024; Alqudah *et al*., 2023; Beuren *et al*., 2023; Thiery *et al*., 2023).

Nevertheless, there may be encountered certain limitations of the study related to the small sample of responses obtained and the brief time lapse, considered for validating the results. Also, it should be emphasized that the findings of the current research are specific to the internal audit framework within the Romanian private sector. Therefore, future research directions may be broadened with a larger sample size, gathering data from an expanded time frame, and shifted to a different context. Also, further perspectives may explore risk management and corporate governance aspects in relation with internal audit effectiveness and their potential implications.

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