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The relationship between organizational culture, information technology, and the effectiveness of internal auditing: A study in Vietnam

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Abstract: In the modern business context, organizational culture, information technology, and the effectiveness of internal auditing are closely interconnected and mutually influential. A transparent and innovation-driven corporate environment enhances the efficiency of internal auditing. At the same time, the application of information technology, such as process automation and data analytics, improves the accuracy and speed of audits. When organizational culture supports auditing and effectively leverages technology, internal auditing not only ensures compliance but also contributes to better risk management, fostering sustainable business growth. This study examines the relationship between organizational culture, information technology, and the effectiveness of internal auditing. The research team employs a quantitative approach using a Likert scale ranging from 1 to 5 and SPSS 22 software, based on data collected from 156 internal auditors in Vietnamese enterprises. The findings indicate that the use of information technology is crucial for enhancing the effectiveness of internal auditing. Furthermore, organizational culture plays a vital role as a mediator in the relationship between information technology and the effectiveness of internal auditing.

Keywords: *Auditing, Accounting, Information technology, Internal audit effectiveness, Organizational culture.*

1. Introduction

According to the Loft, et al. [1]. Information Technology (IT) brings potential benefits in terms of effectiveness and efficiency to the operations of an organization because it enables an organization to: Consistently apply predefined business rules and perform complex calculations when processing large volumes of transactions or data. Enhance the timeliness, availability, and accuracy of information. Facilitate further analysis of information. Improve the ability to monitor the execution of organizational activities and its policies and procedures. Reduce the risk of controls being compromised. Enhance the ability to achieve effective task segregation by implementing security controls in applications, databases, and operating systems.

A study by Mạnh and Thị [2] suggests that Information Technology plays an important role in every activity of a business, especially in accounting and auditing. This study was conducted to examine the role of IT in internal auditing at businesses located in Hanoi. The results indicate that IT is widely used in the auditing process. IT is especially utilized to create documents, ledgers, and working papers for auditors. On the other hand, IT is also used by auditors and managers within businesses. Internal auditors use IT because it helps shorten the time required for tasks and allows them to complete their work more effectively and accurately.

However, in efforts to reduce IT errors, internal auditors should also provide value-added services in areas that are often overlooked. The involvement of auditors in evaluating and improving the quality

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of processes used to validate and document systems, as well as in employee training, can contribute to the successful implementation of IT. During the validation and testing phase of implementation, internal auditors can also provide valuable input on configuring systems in a way that integrates appropriate control measures within their organization.

Organizational culture (OC) is considered at the core of organizational activities, with a significant impact on the effectiveness and quality of products/services. Therefore, the mediating role of organizational culture in the relationship between information technology and the effectiveness of internal auditing will be explored in this study. Furthermore, Alqudah, et al. [3] recommend considering other factors that may hinder the Internal Audit Function (IAF), one of which is organizational culture.

This study was conducted to examine the significance of information technology in internal auditing with a practical study in Vietnam. The structure of the study is as follows: Introduction to the research topic (Section 1); Theoretical Framework (Section 2); Research Methodology (Section 3); Results and Discussion (Section 4); Conclusion and Recommendations (Section 5).

2. Theoretical Framework

Alqudah, et al. [3] reported that in Jordan, the effectiveness of internal auditing is positively influenced by senior leadership support but negatively affected by a lack of competency and limited resources in internal auditing. On the other hand, in Jordan's public sector, the authors found that the effectiveness of internal auditors is negatively impacted by the complexity of tasks. Notably, understanding the external factors affecting the effectiveness of internal auditors in Jordan's public sector can provide deeper insights into many comparable countries, particularly Arab nations. Meanwhile, for the Jordanian government, related studies have suggested focusing on the Internal Audit Function (IAF) and its efficiency ((Nawaiseh, et al. [4]), in addition to allocating internal resources of public organizations through effective internal auditing, as a means to mitigate corruption issues in the public sector.

Yeboah [5] makes an effort to do a critical analysis of the literature on the efficacy of internal audits. Studies focused on public sector organizations, it was discovered. Additionally, the qualities of internal auditors were found to be the key to measuring the performance of internal audits, and it was discovered that the interaction between internal auditors and external auditors, as well as between chief audit executives and senior management, is crucial to internal audit effectiveness. It is advised that research on internal audit effectiveness include empirical studies conducted in private sector organizations, a comparison of private and public sector organizations, the characteristics of internal auditors as the primary metric, and the causal relationship between internal audit effectiveness and management support.

The efficacy of the internal audit function and the extent to which external auditors depend on its output are examined by Aleryani and Choudhary [6]. Seventy senior external auditors from publicly traded companies in the Republic of Yemen were specifically selected as a sample. A questionnaire was used to collect the data, and least partial structural equation modeling was used to assess it. The results demonstrate that the effectiveness of the internal audit function has a major beneficial influence on the extent to which external auditors depend on its work. The audit risk model contends that external auditors ought to adjust their auditing activities in response to the effectiveness of the internal audit function.

The measuring of internal audit effectiveness based on auditors' perceptions of their ability to detect fraud is examined by Lonto, et al. [7]. It looks at the factors that influence how well internal audits work to stop fraud. Instrument development design is a mixed-method exploratory sequential design methodology used in this work. 165 questionnaires were utilized to collect the data, and PLS was the analysis method employed. The study's findings demonstrate that audit quality has an impact on audit efficacy for preventing fraud. As a result, the more independent the internal auditor's tasks are in the

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audit assignment, the higher the audit quality, and the more successful internal audit will be in preventing fraud.

Khanam [8] evaluates the influence of factors on the efficacy of internal audit (IA) in Bangladesh's banking sector. Structural equation modeling was used for the analysis. Results The results show that improving the effectiveness of IA is significantly impacted by both the independence of internal auditors and the caliber of IA. However, the efficiency of IA is not greatly impacted by the proficiency of internal auditors or management support in IA duties. Implications for practice the results of the study could have a big impact on how the government, regulators, internal auditors, management committees, and other stakeholders set up programs to improve the effectiveness of internal auditing (IA) as part of banking audit management reforms.

Information technology simplifies employees' tasks through automation, making it easier for them to perform tasks such as communication and other work-related activities. For the majority of employees, the Internet is used to provide information and conduct research (Haddud, et al. [9]), and the reduced workload leads to increased performance.

Pinheiro, et al. [10] further noted that reduced workload prevents employee burnout, enabling them to complete all tasks on time.

The study by Wanyama and Zheng [11] highlighted the importance of implementing an information system with an understanding of human behavior and related social activities. In other words, an information system is not merely a technical system but also one with behavioral significance.

Humans are a crucial component of information systems ((Nawaiseh, et al. [4]), while organizational structure is an essential part of business strategy, and human resources are considered the cornerstone of an organization ([12]). Furthermore, with support from human resource expertise, the proper implementation of information systems can enhance the performance of both employees and the company.

Nawaiseh, et al. [4] and Chen, et al. [13] emphasized the importance of facilitating conditions, such as providing the necessary equipment to support information systems, including both software and hardware. This ensures that users can utilize the information system according to their needs.

[14], in their study of customs officers, found that most newly recruited customs officers adopted four major cultural aspects in decreasing order of priority: social security, facilitation, technology adaptation, and investigation prevention. The authors recommended continuous learning practices for newly recruited officers and highlighted the importance of social integration for these officers through face-to-face communication, particularly two-way communication.

Alqaraleh, et al. [15] collected data from 153 internal auditors in public enterprises in Jordan. According to their findings, the use of information technology (IT) and organizational culture (OC) support is crucial for enhancing the effectiveness of internal auditing. The study revealed a significant relationship between IT and the efficiency of internal auditing. Furthermore, organizational culture plays a vital role as a mediator between IT and the success of internal auditing. Future research could explore management support and internal audit compliance.

IT applications are evident in the design, implementation, and control of maintaining an organization's business processes [16, 17]. Additionally, IT contributes to the collection, processing, and storage of data, especially financial reporting data. As noted by Ali, et al. [16], accounting information systems facilitate internal control implementation and enterprise management. By utilizing accounting information systems, data is collected, recorded, stored, and managed to generate information for decision-making purposes ([4]). Key components of accounting information include people, IT infrastructure, software data guidelines and procedures, security measures, and internal controls. Accounting information systems are also essential for managing information about business transactions.

The new organizational structure resulting from the study by Islam, et al. [18] examined the role of culture and organizational structure in the knowledge-sharing process, mediated by the impact of

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technological infrastructure. They concluded that there is a positive relationship between learning and development, senior management support, centralization, and knowledge sharing.

Furthermore, Majlesi, et al. [19] also identified a positive relationship between organizational structure and information technology.

Organizational culture has long existed in workplace activities and serves as a driving force for employees to achieve better work quality ([20]). In this context, a strong organizational culture can enhance organizational efficiency. Organizational culture consists of a shared system followed by members of an organization, distinguishing it from others. Ertosun and Adiguzel [21] stated that a strong organizational culture leads to superior organizational development.

In the related study, there were 28 items in the questionnaire, divided into three sections with the following details: the first section included items addressing the independent variable (information technology), the second section covered items related to the mediating variable (organizational culture) and the dependent variable (internal audit effectiveness), and the third section contained items on the socio-demographic characteristics of participants. In another study, Hanna and Firnanti [22] concluded that organizational culture positively impacts the performance of auditors.

Based on the findings of Al-Gasawneh and Al-Adamat [23] the presented variables have the potential to act as mediators. They can also facilitate the formation of relationships between the independent and dependent variables. Additionally, these variables can link the independent variable to the mediating variable. Similarly, the mediating variable and the dependent variable can be interconnected through mediation.

From this, the authors propose the following model (see figure 1):

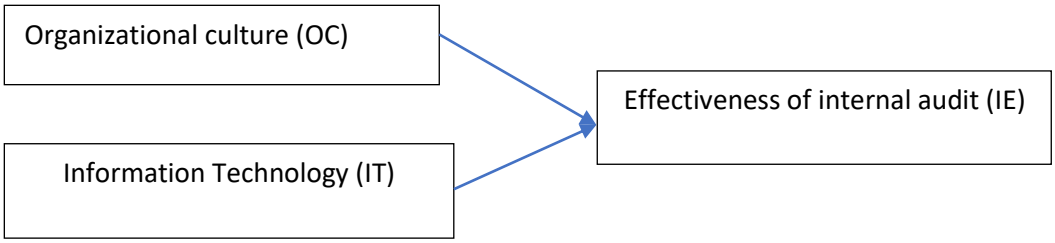

Figure 1.
Theoretical model.

The hypotheses are given in Table 1.

Table 1.
Proposed research hypotheses.

Hypothesis	Interpretation	Source
H1	Information technology positively affects the effectiveness of internal audit	Mạnh and Thị [2], Wanyama and Zheng [11]; Nawaiseh et al. (2021; Barnato, et al. [12]; Nawaiseh, et al. [4]; [13]; Kankaew and Treruttanaset [14] and Alqaraleh, et al. [15]
H2	Organizational culture positively affects the effectiveness of internal audit	Ertosun and Adiguzel [21] and Hanna and Firnanti [22]

3. Researching Method

3.1. Data collecting

Based on the influencing factors explored in the literature review, a quantitative survey questionnaire was distributed to the identified survey subjects in the following formats: (i) Directly, (ii) By mail, (iii) By email, (iv) Via Google Docs, (v) Other. The survey collected 187 responses out of 245

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distributed questionnaires. After excluding invalid questionnaires due to missing fields or incomplete information, the author selected 156 valid responses, representing a response rate of 63.67%.

3.2. Data Processing

The author uses software SPSS 22, the criteria to analyze include: Mean value (Mean), Median value (Median), Max value (Max), Min value (Min) of the researched variants and measurement. Measuring the variability of the data by using the standard deviation. The statistic descriptive analyse aims to collect information about the nature of the researched data according to the specific variants, central trend of the researched data.

In order to verify the scale's quality, the author uses coefficient Cronbach's. The scale is considered good quality when: (i) Coefficient Cronbach's Alpha of the total is bigger than 0.6; and (ii) Correlative coefficient variant – total of the observed variants (Corrected Item – Total Corelation) is bigger than 0.3 [24]. Next, the author analyzes EFA which help to extract the factors serving for the next analysis. The factor "factor loading coefficient" is used to measure the meaning level of coefficient EFA. Hair, et al. [25] consider: "If this coefficient is bigger than 0.3, it is considered as the minimum level, bigger than 0.4 is considered as important level, bigger than 0.5 is considered as having practical meaning". In this research, in order to increase practice and creditability of the researched results, the thesis only chooses the factors having loading coefficient bigger than 0.5. Coefficient KaiserMayer Olkin (KMO) ensures value 0,5<= KMO<=1 and the rotation Varimax is to extract the key factors.

Based on the EFA results, researching method proposal, the factors are extracted into a key factor group and are coded according to the independent or dependent variants. In order to estimate the correlative level of the factors to the information technology appliance to internal audit, the author group uses the multiple regression analysis model to calculate the parameters used in the model.

4. Research Results and Discussion

4.1. Description Statistics

According to Table 2, the survey's objects are mostly males with the rate of 50.64%, meanwhile the rate of female is 49.11%. The opinion of the survey objects mostly concentrates on the group having audit profession with the number of 86 people which is the highest rate of 50.89%, the group having accounting profession is in the second place with rate of 32.54% and the last place is the group having finance profession rates 16.57%.

Table 2.
Classification regarding gender and profession of the survey's objects.

No.	Gender	Profession			Total		Survey's objects	Position	Number	Rate
		Audit	Accountant	Finance	Number	Rate				
1	Male	46	18	15	79	50.64%	Have CPA or ACCA, IACEW, other certifications	Internal Auditor	60	38.46%
2	Female	30	35	12	77	49.36%		Director/ Dept. Leader	29	18.59%
	Total	76	53	27	156	100.00%	No certificate	Internal Auditor	67	42.95%
	Rate	48.72%	33.97%	17.31%	100.00%		Total		156	100.00%

Besides, in the survey's objects, the internal auditors having no accounting certificates take the highest rate of 42.95%, the internal auditors who having accounting certificates take the rate of 38.46%, and the Director/ Dept. Leader takes the rate of 18.59%.

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4.2. Scale Verification

Verification on impact scale of information technology to the internal audit has been done by the credit coefficience Cronbach's Alpha and analysis EFA. Table 3 shows that most of factors have coefficience Cronbach's Alpha bigger than 0.7; Corrected Item - Total Correlation of the scales are bigger than 0.3 after eliminate the observed variants including OC2, IT4, IE7.

Table 3.
Result of Coefficience Cronbach's Alpha of the scales.

	Observed variants		Cronbach's Alpha	Corrected Item - Total Correlation
	Before	After		
Organizational culture (OC)	8	7	.812	.797
Information Technology (IT)	11	10	.804	.784
Effectiveness of internal audit (IE)	7	6	.818	.802

4.3. Exploratory Factor Analysis and Correlation Between Variants

4.3.1. Verification KMO And Bartlett

Factor analysis results (Table 4) show that index KMO is 0.776 and >0.5, this means the data for factor analysis is totally suitable.

Bartlett's verification result is 22415.13 with the meaning level (p_Value) sig =0.000 <0.05, (declining hypothesis Ho: the observed variants have no mutual correlation in the total). So, the hypothesis about correlation matrix between the variants is the declined unifying matrix which means the variants are correlative and meet the factor analysis condition.

Table 4.
Coeficience KMO and Bartlett

Criteria	Model
KMO index	0.776
Bartlett's	22,415.13
Verification Bartlett having value sig	0.000
Total Variance Explained	57.317
Min. Eigenvalues	2.302

The results show that for the remaining observed variants after declined the scales which do not meet the creditability, the total variance explained is 57.317 % which are met requirement >50%; so it can be said that these factors explain 57.317 % of the data's variance. Value of coefficience Eigenvalues of the factor is high (>1), the factors having Eigenvalues (min.) of 2.302 are >1.

Hence, analysis EFA is suitable to the data and the observed variants are mutual correlative in the total, so are used for the next analysis.

Analysis EFA has been done by Component Analysis and Varimax methods, the analysis results have 23 observed variants of the scales for independent variants in Table 5.

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Table 5.
Factor Analysis EFA of the independent variants.

Rotated Component Matrix[a]			
	Component		
	1	2	3
OC1	0.823		
OC3	0.869		
OC4	0.831		
OC5	0.821		
OC6	0.756		
OC7	0.795		
IT1		0.792	
IT2		0.785	
IT 3		0.932	
IT5		0.824	
IT6		0.721	
IT7		0.820	
IT8		0.863	
IT9		0.882	
IT10		0.873	
IT11		0.737	
IE1			0.862
IE2			0.895
IE3			0.836
IE4			0.821
IE5			0.784
IE6			0.797
IE7			0.813
Extraction method: Principal Component Analysis			
Rotation method: Varimax with Kaiser Normalization			

Note: a. Rotation converged in 3 iterations.

4.4. Correlative Analysis Between Variants in the Model

Table 6 gives the result of correlative coefficience between the variants, the purpose of checking the close correlation between the independent variants and dependent variants is to eliminate the factors which can lead to the multicollinearity before running regression model. The results show that 05 independent factors have coefficience sig < 5% so these 02 factors are correlative with the dependent variants. The correlative coefficince of the 02 factors is: OC: 0.247 and IT: 0.401. For the correlavtice coefficience between these 02 independent variants in the model, there's not any couple is bigger than 0.8 so when use regression model, the multicollinearity will be less. This shows that the dependent variants have the linear correlation with 5 factors, these variants have standard distribution.

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Table 6.
Correlative matrix between the components.

Variants		Internal Audit Effectiveness (IE)	Organizational culture (OC)	Information Technology (IT)
Internal Audit Effectiveness (IE)	Pearson Correlation	1	.247**	.401**
	Sig. (2-tailed)		0.000	0.000
	N	156	156	156
Organizational culture (OC)	Pearson Correlation	.247**	1	0.000
	Sig. (2-tailed)	0.000		1.000
	N	156	156	156
Information Technology (IT)	Pearson orrelation	.401**	0.000	1
	Sig. (2-tailed)	0.000	1.000	
	N	156	156	156

4.5. Multivariant Linear Regression Analysis

In order to define, measure and evaluate impact level of the factors to internal audit, the group of authors uses the multiple linear regression method between 02 impact factors taken from the above exploration factor analysis and correlative analysis.

Table 7.
Multivariant regression results.

	Coefficients are not standardized		Normalization coefficient	Value t	Sig.	Multicollinearity	
	B	Standard deviation	Beta			Acceptability	VIF
Constant	2.487	0.070		40.10	0.000		
Organizational culture	0.203	0.021	0.127	4.519	0.000	0.716	1.246
Information Technology (IT)	0.317	0.024	0.242	4.347	0.000	0.843	1.356
R2							0.497
Revised R2							0.442
Sig. F Change							0.000
Durbin-watson							2.247

According to regression results in Table 7, these results give value $R^2 = 0.442$; value R^2 says that the independent variants in the model may explain 44.2% of the changes of the dependent variants. At the same time, the analysis results show that the variance inflation factor (VIF) is very small, smaller than 2, is means that these independent variants do not have close relation so the Multicollinearity doesn't happen. The verification on independence of the surplus part, means the statistic Durbin – Watson of regression function having value $2.247 < 3$, shows that there's no calss 1 serial autocorrelation phenomenon, or in other words, the estimated surplus of the independent model doesn't have the linear relation with each other. Value t which is equivalent to Sig. of the independent variants are smaller than 0.05 so having statistic meaning. Table 7 shows 2 factors which affect to the internal audit effectiveness. The regression equation for the variants having standardized coefficience is in the below form:

IE=2.487+0.203*OC+0.317*IT

Hypotheses H1 and H2 are accepted. That is, Information Technology has a positive impact on the effectiveness of internal auditing, and Organizational Culture has a positive impact on the effectiveness of internal auditing.

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This is consistent with the findings of various studies Mạnh and Thị [2] Wanyama and Zheng [11]; Nawaiseh et al. (2021; Barnato, et al. [12]; Nawaiseh, et al. [4]; Chen, et al. [13]; Kankaew and Treruttanaset [14]; Alqaraleh, et al. [15]; Ertosun and Adiguzel [21] and Hanna and Firnanti [22]

5. Conclusions and Recommendations

Information Technology (IT) today plays a crucial role in enhancing the effectiveness of internal auditing. Technology allows auditors to collect and process data quickly and accurately. Data analysis tools such as statistical analysis software, automated auditing software, and artificial intelligence (AI) can help auditors detect unusual patterns, trends, or weaknesses in internal control systems. Research demonstrates that Information Technology positively impacts the effectiveness of internal auditing.

Additionally, organizational culture has a profound impact on the effectiveness of internal auditing within an organization. Organizational culture is the set of values, beliefs, codes of conduct, and behaviors shared and maintained within the organization, shaping how members work, make decisions, and act. When an organization has a strong and positive culture, it can enhance the effectiveness of internal auditing by supporting the execution of audit processes, improving transparency, and promoting compliance with regulations.

Therefore, to enhance the effectiveness of internal auditing, businesses need to:

First, invest in, upgrade, and encourage employees to use the latest technologies in the business activities of the company, particularly in the accounting and auditing fields. The benefits of IT include:

The use of auditing software automates repetitive auditing tasks, saving time and reducing human errors. This not only improves efficiency but also minimizes risks associated with manual auditing steps. IT helps create more effective monitoring and testing systems for compliance with internal policies, procedures, and standards. Risk management and control tools also help detect non-compliance factors or gaps in the organization's internal control systems.

Technology aids auditors in detecting and preventing fraud within the organization by using advanced analytical tools and AI to identify unusual or suspicious behaviors. Auditing software can detect fraud by analyzing transaction patterns, identifying anomalies, and automatically alerting auditors.

Technology provides tools and platforms that allow auditors to work remotely effectively, while maintaining the security and accuracy of the auditing process. Cloud computing systems and online collaboration technologies help auditors access and share documents and reports from anywhere.

Technology makes the creation and delivery of audit reports easier and more accurate. Automated reporting tools allow auditors to easily generate audit reports with visually clear and understandable data, helping managers or the board of directors make quick and accurate decisions.

IT systems help ensure that audit data is protected and secure, minimizing the risk of loss or attack. Encryption technologies, multi-layer security, and robust authentication systems protect information and prevent unauthorized access.

Information Technology has become and continues to be a crucial factor in improving the effectiveness of internal auditing. From automating processes and quickly analyzing data to detecting fraud and securing information, IT not only helps increase work efficiency but also ensures transparency, accuracy, and safety for the entire internal audit process.

Secondly, businesses need to focus on the professional development and continuous training of employees to enhance internal audit capabilities. Auditors equipped with new skills and in-depth knowledge of processes, technologies, and audit methods will be able to carry out audits more effectively.

Organizational culture, with clear ethical standards, will ensure that auditors act with high integrity, work objectively, and are not influenced by external factors. Integrity in the auditing process is crucial to maintaining the credibility and reliability of audit results.

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Organizational culture directly impacts employees' perceptions of the importance of internal control. When employees within the organization understand and share the values of internal control, they will better adhere to audit processes and take proactive steps to mitigate risks.

An organizational culture that encourages accountability and provides positive feedback will help auditors assess the effectiveness of audit processes and assist departments in improving control systems. When everyone feels responsible for their work outcomes and is not afraid of criticism, they will actively implement procedures and work more transparently.

An organizational culture that values innovation and continuous improvement will help internal auditing identify opportunities to enhance the efficiency of audit processes. This innovation may involve the adoption of new technologies in auditing or improvements to work processes and regulations within the organization.

Organizational culture plays a vital role in improving internal audit effectiveness. When an organization has a strong culture of compliance, transparency, ethics, and collaboration, the auditing process will run smoothly, helping the organization maintain control, reduce risks, and improve operational performance. Factors such as leadership support, employee involvement, and continuous process improvements all contribute to the success of internal auditing within an organization.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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References

[1] A. Loft, C. Humphrey, and S. Turley, "In pursuit of global regulation: Changing governance and accountability structures at the international federation of accountants (IFAC)," *Accounting, Auditing & Accountability Journal*, vol. 19, no. 3, pp. 428-451, 2006.

[2] D. T. Mạnh and Q. N. Thị, "Application of information technology in internal audit at joint stock enterprises in Hanoi city," *Economic and Development Magazine - Online Management System*, no. 308, pp. 72-81, 2023.

[3] H. M. Alqudah, N. A. Amran, and H. Hassan, "Extrinsic factors influencing internal auditors' effectiveness in Jordanian public sector," *Rev. Eur. Stud.*, vol. 11, p. 67, 2019. https://doi.org/10.5539/res.v11n2p67

[4] K. Nawaiseh, M. Abd-Alkareem, H. A. Alawamleh, K. M. Abbas, and T. G. A. Orabi, "Dimensions of corporate governance and organizational learning: An empirical study," *Journal of Management Information and Decision Sciences*, vol. 24, no. 5, pp. 1-11, 2021. https://doi.org/10.1108/JMID-03-2021-0161

[5] E. Yeboah, "Critical literature review on internal audit effectiveness," *Open Journal of Business and Management*, vol. 8, no. 05, p. 1977, 2020. https://doi.org/10.4236/ojbm.2020.85121

[6] M. Y. A. Aleryani and A. Choudhary, "The effectiveness of internal audit functions and their impact on the performance of external and internal auditors," *International Journal of Science and Research Archive*, vol. 10, no. 1, pp. 1020-1028, 2023. https://doi.org/10.30574/ijsra.2023.10.1.0864

[7] M. P. Lonto, E. G. Sukoharsono, Z. Baridwan, and Y. W. Prihatiningtias, "The effectiveness of internal audit for fraud prevention," *Australasian Accounting, Business and Finance Journal*, vol. 17, no. 3, pp. 171-190, 2023. https://doi.org/10.14453/aabfj.v17i3.11

[8] Z. Khanam, "Effectiveness of internal auditing from the lens of internal audit factors: Empirical findings from the banking sector of Bangladesh," *Journal of Financial Crime*, vol. 31, no. 6, pp. 1467-1484, 2024. https://doi.org/10.1108/JFC-11-2023-0299

[9] A. Haddud, J. C. Dugger, and P. Gill, "Exploring the impact of internal social media usage on employee engagement," *Journal of Social Media for Organizations*, vol. 3, no. 1, pp. 1-23, 2016. https://doi.org/10.12821/jsmo.v3i1.98

[10] M. Pinheiro, I. Ivandic, and D. Razzouk, "The economic impact of mental disorders and mental health problems in the workplace," *Mental Health Economics: The Costs and Benefits of Psychiatric Care*, pp. 415-430, 2017.

[11] I. Wanyama and Q. Zheng, "Organizational culture and information systems implementation: A Structuration theory perspective," in *2010 2nd IEEE International Conference on Information and Financial Engineering*, 2010: IEEE, pp. 507-511.

[12] A. E. Barnato *et al.*, "Prioritizing the organization and management of intensive care services in the United States: The PrOMIS Conference," *Critical Care Medicine*, vol. 35, no. 4, pp. 1003-e6, 2007. https://doi.org/10.1097/01.CCM.0000256315.45987.40

[13] Y. Chen, Y. Wang, S. Nevo, J. Jin, L. Wang, and W. S. Chow, "IT capability and organizational performance: the roles of business process agility and environmental factors," *European Journal of Information Systems*, vol. 23, no. 3, pp. 326-342, 2014. https://doi.org/10.1057/ejis.2013.28

[14] K. Kankaew and P. Treruttanaset, "The organization culture affecting job performance of newly hired employees: A case study of the customs bureau at Bangkok suvarnabhumi international airport, Thailand," in Corporate Leadership and its Role in Shaping Organizational Culture and Performance: IGI Global, 2021, pp. 129-155.

[15] M. H. Alqaraleh, M. O. S. Almari, B. Ali, and M. S. Oudat, "The mediating role of organizational culture on the relationship between information technology and internal audit effectiveness," *Corporate Governance and Organizational Behavior Review*, vol. 6, no. 1, pp. 8-18, 2022. https://doi.org/10.26428/cgobr.2022.6.1.2

[16] B. Ali, R. Bakar, and W. A. W. Omar, "The critical success factors of accounting information system (AIS) and it's impact on organisational performance of Jordanian commercial banks," *International Journal of Economics, Commerce and Management*, vol. 4, no. 4, pp. 658-677, 2016.

[17] B. J. Ali and M. S. Oudat, "Board characteristics and intellectual capital performance: Empirical evidence of bahrain commercial banks," *Academy of Accounting and Financial Studies Journal*, vol. 25, no. 4, pp. 1-10, 2021. https://doi.org/10.2139/ssrn.3595979

[18] M. Z. Islam, S. M. Jasimuddin, and I. Hasan, "Organizational culture, structure, technology infrastructure and knowledge sharing: Empirical evidence from MNCs based in Malaysia," *Vine*, vol. 45, no. 1, pp. 67-88, 2015.

[19] A. Majlesi, Z. Khani, Z. F. Avaz, and A. Pirzad, "The impact of intelligent leadership and organizational structure on management accounting trends with emphasis on the intermediate role of information technology," 2020.

[20] C. M. Alina, S. E. Cerasela, and T. R. Andreea, "Internal audit, internal control and organizational culture-active ingredients in conquering the crisis," *Ovidius University Annals, Series Economic Sciences*, vol. 13, no. 2, 2013.

[21] O. G. Ertosun and Z. Adiguzel, "Leadership, personal values and organizational culture," *Strategic Design and Innovative Thinking in Business Operations: The Role of Business Culture and Risk Management*, pp. 51-74, 2018.

[22] E. Hanna and F. Firnanti, "Faktor-faktor yang mempengaruhi kinerja auditor," *Jurnal bisnis dan akuntansi*, vol. 15, no. 1, pp. 13-28, 2013.

[23] J. Al-Gasawneh and A. Al-Adamat, "The mediating role of e-word of mouth on the relationship between content marketing and green purchase intention," *Management Science Letters*, vol. 10, no. 8, pp. 1701-1708, 2020. https://doi.org/10.5267/j.msl.2020.4.015

[24] R. M. Thorndike, "Book review: psychometric theory by Jum Nunnally and Ira Bernstein New York: McGraw-hill, 1994, xxiv+ 752 pp," *Applied Psychological Measurement*, vol. 19, no. 3, pp. 303-305, 1995.

[25] G. S. Hair, A. H. Cowley, R. A. Jones, B. G. McBurnett, and A. Voigt, "Arene complexes of Al (C6F5) 3. Relationship to a already seen silylium ion," *Journal of the American Chemical Society*, vol. 121, no. 20, pp. 4922-4923, 1999.

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