

The Mediating Role of Digital Competency between Top Management Support and the Electronic Internal Audit Tasks' Effectiveness

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Abstract: This study aimed to investigate how the digital skills of internal auditors influence the connection between support from top management and the effectiveness of electronic audit tasks in Jordanian-listed industrial companies. 126 questionnaires, collected from managers in these firms, were analyzed using the Statistical Package for Social Sciences (SPSS) employing descriptive-analytical techniques. Findings revealed a significant impact of top management support on the digital proficiency of internal auditors, which in turn affected the effectiveness of electronic audit tasks in these listed companies. Additionally, the study highlighted that the digital competence of internal auditors positively acts as a mediator in the relationship between top management support and the effectiveness of electronic audit tasks. These results are crucial for regulators and decision-makers as they provide insights that could shape potential regulations focused on enhancing digital skills within internal audit departments in Jordan's industrial sector, particularly concerning the oversight of public funds. Importantly, this study marks the initial exploration of existing research on how internal auditors' digital competency mediates the relationship between top management support and the effectiveness of electronic audit tasks within Jordan's industrial landscape.

Keywords— Top management support; digital competency; mediating factor; Jordanian industrial sector; electronic audit tasks' effectiveness.

1. INTRODUCTION

The substantial expansion witnessed by institutions, characterized by their increased size, growing complexity, and heightened competition among them [1], coupled with the emergence of financial scandals within business enterprises, has become a significant impetus for institutions to focus on delivering reliable, high-quality information necessary for well-informed decision-making [4; 5; 11, 21, 29]. The success of an institution relies not merely on its scale but more so on effective management practices and the selection of the most appropriate courses of action [3]. To achieve this success, organizations have sought control mechanisms that facilitate strategic planning and rational financial decision-making—tasks considered among the most demanding responsibilities for institutions. This need has led to the adoption of internal audits as a means to assist in executing functions effectively and improving performance [8, 24].

The role of internal audit has undergone significant changes due to heightened demand for its services, transitioning from a mere error and fraud detection tool to an administrative function aimed at boosting organizational performance and guaranteeing information reliability [12, 16, 17, 41]. Positioned as an essential function within institutions, it caters to the executive body, particularly in larger and more complex organizational structures where managing multiple functions independently becomes impractical [23]. Concurrently, its role extends to supervising proper procedure

implementation and resource utilization, especially in corporate environments [19, 30]. Thus, internal audit functions as an evaluative mechanism that assesses an organization's internal performance by providing accurate information throughout all organizational levels [18]. Its mandate also includes safeguarding organizational assets by ensuring compliance with established policies, regulations, and widely accepted procedures by individuals within the organization [28].

However, the substantial technological progress prevalent in the contemporary era has notably influenced the internal audit profession, especially amid the challenges posed by the COVID-19 pandemic [22]. The rise of digital accounting, in particular, has exerted a significant impact on the internal audit field and its operational effectiveness [27]. Similarly, support from top management stands as the cornerstone for the efficacy of electronic internal audit tasks within an organization. Its endorsement not only ensures the allocation of crucial resources, such as technology and skilled personnel, but also aligns these tasks with the strategic goals of the organization. This support fosters a culture of adherence to rules and responsibility, encouraging active engagement from employees and nurturing a positive approach toward implementing electronic audit processes. Furthermore, it facilitates decision-making that prioritizes crucial areas, facilitates smoother transitions during change, and reinforces the credibility of audit findings and recommendations, thereby significantly boosting the overall efficiency and impact of electronic internal audit tasks [18, 38].

However, the presence of digital expertise among internal auditors holds immense significance in achieving the effectiveness of electronic internal audit tasks. Skilled internal auditors equipped with digital proficiency play a pivotal role in ensuring the efficacy of electronic internal audit tasks, directly influencing their thoroughness, efficiency, and pertinence [16]. A heightened level of digital acumen empowers auditors to navigate intricate technological landscapes, proficiently utilize advanced audit tools and software, and accurately interpret digital data [31]. This proficiency guarantees auditors' capability to comprehensively identify, evaluate, and address digital risks, adapting audit methodologies to match the evolving technological terrain [21]. Moreover, auditors adept in digital skills are better positioned to offer valuable insights and recommendations that align with the organization's digital strategy, thereby amplifying the overall quality and impact of electronic internal audit tasks. Thus, the digital competency of internal auditors assumes a mediating role between top management support and the effectiveness of electronic internal audit tasks [4, 15].

Despite the benefits, the utilization of electronic internal audits introduces new risks and challenges [19, 40]. These encompass concerns regarding digital efficiency and the need for enhanced expertise within internal audit functions. Organizations must thoroughly assess these factors and implement suitable checks and precautions to alleviate the associated difficulties [4, 40]. Notably, prior research has predominantly concentrated on banking institutions, overlooking the importance of industrial firms, particularly in economies such as Jordan's [35, 37]. Furthermore, industrial companies face challenges in evaluating the efficacy of electronic internal audit tasks, and the interaction between top management support and the digital proficiency of internal auditors shapes the effectiveness of electronic internal audit tasks within Jordanian listed industrial firms [4, 43].

Furthermore, substantial advancements have provided industrial firms with opportunities to safeguard their assets and improve their internal audit methodologies [17,31]. This progress has triggered a noticeable transformation in how internal auditing is approached across various company types [19]. Nevertheless, it's vital to recognize the upsurge in IT challenges, particularly in the absence of effective digital proficiency. When internal auditors lack sufficient digital expertise, it can result in the misuse of technological audit methods [25].

Industrial firms face numerous intricacies, particularly concerning the integration of new IT systems within the highly competitive business environment [34]. Specifically, the Jordanian-listed industrial firms under scrutiny in this research necessitate robust backing from their top management for their internal audit units and the provision of qualified internal auditors to navigate technological complexities, thereby reinforcing their competitive position [37]. As a result, there's a growing imperative within Jordanian industrial companies to

equip internal auditors with digital expertise, specifically aiming to enhance the effectiveness of electronic internal audit tasks. Consequently, both practitioners and researchers should acknowledge the potential for top management support to create value within organizations and impact the effectiveness of electronic internal audit tasks. Additionally, comprehending the influence of digital competency in such a domain holds significant importance.

The current study addresses this practical concern by proposing a model that investigates how the digital proficiency of internal auditors acts as a mediator in the relationship between top management support and the efficiency of electronic internal audit tasks. This framework is constructed with the following objectives: (1) to analyze the impact of top management support on the digital expertise of internal auditors in Jordanian-listed industrial firms, (2) to evaluate the influence of internal auditors' digital competency on the efficacy of electronic internal audit tasks within these firms, and (3) to appraise the impact of top management support on the effectiveness of electronic internal audit tasks within these firms, considering the digital competency of internal auditors as an mediator factor.

2. HYPOTHESES DEVELOPMENT

2.1 The Effect of Top Management Support on the Digital Competency of Internal Auditors

Within contemporary organizations, the audit function plays a crucial role, serving as a pivotal approach utilized by management to verify the effectiveness of internal control mechanisms [26, 32]. Over time, internal audit has transformed into a vital and indispensable component in safeguarding assets, protecting company resources, and ensuring the appropriate execution of operations within the organization [2].

Internal audit functions operate within diverse legal and cultural landscapes, catering to institutions that vary in their goals, size, complexity, and organizational structure. These differences can substantially influence the practices of internal audit, potentially limiting their effectiveness [7]. Consequently, many organizations aim to strengthen and support their internal auditors by employing diverse strategies to enable optimal performance. This includes top management's support for internal auditors through providing adequate budgetary allocations for training programs, facilitating access to advanced technological tools, and addressing staffing requirements to enhance the capabilities of internal audit teams. Furthermore, top management can encourage and endorse specialized training programs, certifications, and workshops that augment the skills and knowledge base of internal auditors in accordance with technological advancements [18]. Establishing clear expectations regarding the integration of digital skills into the audit process and emphasizing their significance in delivering high-quality audit outcomes is also vital. Fostering a culture that values continuous learning, innovation, and adaptation to

new technologies is pivotal, as it encourages internal auditors to embrace digital tools and methodologies [25]. Additionally, recognizing and rewarding exceptional performance in effectively adopting and utilizing digital skills in the audit process reinforces the value placed on these competencies. Finally, when top management offers strategic guidance and direction on the integration of technology into audit processes, it ensures alignment with the organization's goals and objectives [16].

Moreover, top-level support significantly impacts the digital proficiency of internal auditors by acting as a catalyst for cultivating a culture of ongoing learning, resource provision, and strategic guidance. When upper management endorses and prioritizes the development of digital skills, it underscores the significance of technological adeptness within the organization [42]. This backing facilitates the allocation of resources toward comprehensive training initiatives, access to state-of-the-art tools and technologies, and opportunities for practical engagement with digital audit methods. Additionally, when top leadership champions digital competencies, it often results in integrating these skills into performance assessments and career growth plans, encouraging auditors to continuously enhance their expertise [10, 38]. Overall, this support establishes an atmosphere where internal auditors feel empowered and motivated to embrace technological advancements, ultimately enhancing their digital capabilities to effectively navigate and leverage technology for more robust and insightful audits. Mohammad [25] argued that the absence of management support constrains the human and financial resources available to the internal audit department.

However, within the context of Jordan, there exists a limited body of research addressing the support provided by top management for the digital proficiency of internal auditors. Nonetheless, the available literature indicates a favorable connection between these two variables, whether explicitly or implicitly suggested [25]. Consequently, top management support might play a crucial role in imparting digital competency to new internal auditors at the outset or offering training programs for current internal auditors. Additionally, the academic studies within Jordan exhibit a scarcity in examining how top management support influences the digital expertise of internal auditors [42]. One of the goals of the current study is to explore the impact of top management support on the digital proficiency of internal auditors within Jordanian industrial firms. The hypothesis presented in this study suggests that substantial support provided to the internal audit department by top management will lead to internal auditors acquiring digital skills. Hence, the following hypothesis is formulated: *H1. The digital competence of internal auditors in Jordanian industrial companies is positively influenced by top management support.*

2.2 The Effect of the Digital Competency on the Effectiveness of Internal Audit Tasks

Digital competency, also known as digital literacy or digital skills, refers to individuals' adeptness in effectively utilizing and maneuvering digital tools and technologies. It encompasses a range of proficiencies and knowledge linked to using computers, software applications, the internet, and various other digital resources [32]. In our modern society, which heavily relies on technology, digital proficiency holds significant importance as it allows individuals to access information, communicate, address challenges, and carry out tasks in diverse personal and professional environments [19].

Proficiency in digital skills stands as a fundamental requirement for the responsibilities of internal auditors, necessitating that auditors execute their profession with adequate technical training and professional expertise [20]. The mastery of electronic skills and the application of professional care are essential duties incumbent upon auditors to execute their tasks at a reasonable level (International Standards for Auditing and Assurance and the Code of Ethics of the Profession). According to Al-Okaily et al [6], electronic competence represents the expertise mandated for internal auditors, encompassing a thorough comprehension of all accounting applications, alongside an understanding of control mechanisms and internal audit protocols. Additionally, Alqudah et al. (2019) emphasized the necessity for internal auditors to possess ample communication skills, interpersonal abilities, and proficiency in information technology.

Therefore, empowering internal auditors with digital proficiency stands as a critical factor influencing the efficacy of electronic internal audit tasks [9]. Equipped with digital competency, internal auditors can acquire appropriate digital skills to execute their responsibilities swiftly and efficiently [18, 32]. The assertion is that providing digital competency to internal audit units is crucial in assisting internal auditors in accomplishing their digital tasks, thereby enhancing the effectiveness of electronic internal audit tasks. When internal auditors possess adequate digital proficiency (comprising electronic skills, knowledge of information technology, training in automation, and electronic expertise), this contributes to heightened effectiveness in conducting electronic internal audit tasks within Jordanian industrial companies. Hence, the second hypothesis postulates: *H2: The effectiveness of electronic internal audit tasks in Jordanian industrial companies is positively influenced by the digital competence of internal auditors.*

2.3 The Mediating Role of Internal Auditors' Digital Competency

The digital competence of internal auditors serves as an intermediary element between the support offered by top management and the efficiency of electronic audit tasks by enabling a more direct and influential utilization of the resources and guidance supplied by top-level leadership [19]. Top management support entails the provisioning of resources, tools, and guidance for digitizing the audit function. Internal auditors, equipped with heightened digital competency, proficiently employ these resources. Their

expertise enables them to more efficiently and effectively utilize advanced technology, data analytics, and specialized software provided by management throughout the audit procedures [25].

Top management's strategic direction aims to harmonize audit tasks with the objectives of the organization. Auditors possessing robust digital skills comprehend and implement these directives more proficiently in electronic audit tasks. They utilize their expertise to understand and apply digital strategies within audits, ensuring alignment with broader organizational goals [33]. Digital competency empowers auditors to navigate intricate technological landscapes, conduct thorough assessments of digital risks, and extract valuable insights from digital data []. This competence enables auditors to conduct more comprehensive and insightful electronic audits, resulting in more effective recommendations for mitigating risks and enhancing controls. Consequently, the heightened digital competence of internal auditors, stemming from top management support, directly correlates with the overall effectiveness of electronic audit tasks [30]. Auditors' capacity to effectively utilize digital tools and methodologies leads to higher-quality audit outcomes, including increased precision, timeliness, and relevance of audit findings and recommendations [1].

Therefore, the digital competence of internal auditors, fostered through support from top management, emerges as a pivotal bridge between the resources, guidance, and strategic directives offered by leadership and the ultimate effectiveness and influence of electronic audit tasks within the organization.

Building upon previous discussions, this research suggests that the digital competency of internal auditors' functions as a mediating element between the support provided by top management and the efficiency of electronic internal audit tasks. The rapid and continual advancements in technology across the business landscape, coupled with the expansion and complexity of businesses, have resulted in the generation of vast and varied datasets and information. This circumstance necessitates qualified internal auditors equipped with digital expertise. Consequently, industrial firms have recognized the potential for enhancing the efficacy of internal audits [34].

Hence, this study contends that adept utilization of digital competency could act as an intermediary factor between the support from top management and the efficiency of electronic internal audit tasks. In other words, the backing provided by top management for the digital competence of internal auditors is expected to enhance the effectiveness of electronic internal audit tasks within Jordanian-listed industrial companies. This assertion gives rise to the following hypothesis, H3: The digital competency of internal auditors serves as a mediating factor between top management support and the effectiveness of electronic internal audit tasks in Jordanian industrial companies.

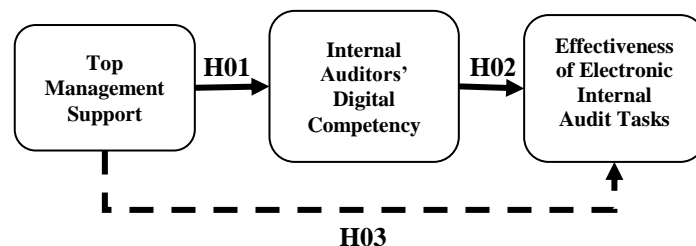


Fig. 1: Research Model

3. RESEARCH METHODOLOGY

The main objective of this study is to assess how the digital competence of internal auditors acts as a mediator in the connection between top management support and the effectiveness of electronic internal audit tasks within Jordanian industrial companies. The primary method for data collection involved employing a questionnaire, strategically designed to gather insights from the study's sample and capture data reflecting participants' viewpoints on the variables within its specific context [17]. All 54 Jordanian-listed industrial companies were included in the study due to the limited population, encompassing the entire study sample. Respondents, such as managers holding positions in internal audit departments, financial management, IT management, production, and human resources, were selected based on their qualifications to address the questionnaire's variables. A total of 270 questionnaires (five for each company) were distributed, yielding 126 suitable responses. This response rate of 46.6% is considered acceptable for statistical analysis, as per established norms [16, 17, 29, 39].

3.1 Common Method Bias

Though self-reported data can present limitations such as potential exaggeration or omissions, it remains widely embraced in academic literature as, in many research realms, it is frequently the sole available method [1, 33, 36]. To address potential biases associated with this approach, several precautions were taken. The data collection process occurred in two phases to ensure respondent anonymity.

Additionally, the questionnaire items were deliberately randomized to deter easy identification of predictor and outcome variables. An exploratory factor analysis with an unrotated solution was conducted to confirm the absence of common method bias. The outcomes of this statistical examination, referred to as the Harman single-factor test, revealed that a single factor accounted for only 38.94% of the variance, offering further evidence of the absence of common method bias. These measures align with those employed in previous studies [17, 18, 32].

3.2 Reliability and Validity

The study's findings' credibility is closely linked to the design, structure, and consistency of the research tool employed. Various reliability tests have been devised by experts to serve this purpose. In this research, the researcher conducted a reliability assessment known as the Cronbach Alpha Test to ascertain the research tool's credibility. This assessment validates the reliability of the research instrument when the Cronbach Alpha value surpasses 0.07, as suggested by Sekaran and Bougie [39]. The primary aim of this test is to assess the research tool's consistency, thereby reinforcing the reliability of the research instrument and its outcomes. Consequently, the reliability analysis conducted in this study confirmed that the research instrument is suitably dependable, with Cronbach Alpha values for all studied variables surpassing 0.07.

Furthermore, the validation test aims to verify the soundness of the linguistic structure, the clarity of content, the coherence across sections, impartiality, and alignment with represented dimensions within the research instrument. This validation procedure holds critical importance in ensuring the study effectively fulfils its objectives. Evaluations on the content's validity are best provided by expert assessors possessing both experience and expertise in the field. Hence, the questionnaire underwent assessment by a panel of faculty members specializing in the subject of the study from diverse Jordanian and Arab universities.

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4. DATA ANALYSIS AND RESULTS

This study employed the "Statistical Package for Social Sciences (SPSS 25)" for data analysis. The data analysis involved the use of descriptive statistics, as well as the performance of simple linear regression and hierarchical regression tests within the SPSS software. In terms of gathering the demographic profile of the participants, four specific questions were utilized to elicit information about their age, educational background, years of professional experience, and job title.

Table 1. Profiles of Respondents

	Category	Frequency	Percentage (%)
Age	21-30	0	0
	31-40	24	19
	41-50	68	54
	51-60	21	17
	<60	13	10
	Total	126	100
Education Level	Bachelor	83	66
	Master	37	29

	PhD	6	5
	Total	126	100
Experience	2-4	7	6
	5-7	25	20
	8-10	71	56
	<10	23	18
	Total	126	100
Job Title	Head of internal audit department	36	29
	Financial manager	30	24
	IT manager	23	18
	Production manager	22	17
	Human resource manager	15	12
	Total	126	100

Table 1 illustrates that a considerable percentage of the respondents fell within the age range of approximately 31-50 years (73%). Moreover, the majority of participants held a bachelor's degree (66%), while a notable 29% held a master's degree. A significant segment of the respondents boasted a minimum of 8 years of professional experience (74%).

Furthermore, about 29% of participants served as head of internal audit department, 24% as financial manager, followed by 18% as IT manager, 17% as production manager, and finally, 12% as human resource manager. Consequently, the demographic details about the respondents highlight their substantial knowledge and experience, rendering them well-suited to participate in the survey and furnish reliable data for this study.

Regarding descriptive statistics, the mean values of the variables, as shown in table 2, surpassed the midpoint of the one-to-five scale. I segmented the five-point scale into three classifications: low, medium, and high, Scores below 2.33 are categorized as low, scores above 3.67 fall into the high category, and scores between 2.33 and 3.67 are considered moderate, aligning with the criteria delineated by Hair, Hult, Ringle, and Sarstedt (2016).

Table 2. Descriptive statistics

	Constructs	Items	Mean	Rank	Level
1.	Top management support	6	3.82	2	High
2.	Internal auditors' digital competency	5	3.54	3	Moderate
3.	Effectiveness of electronic	13	4.17	1	High

Constructs	t-value	Sig.	Result of Hypothesis
The internal auditors' digital competency	6.271	0.000	Accepted
Dependent variable: effectiveness of electronic internal audit tasks			
R ² = 0.346			
internal audit tasks			

As shown in Table 2, the average figures for the study's variables range from 3.54 to 4.17. This suggests that all the study variables demonstrate notably positive mean levels.

Specifically, the results suggest that, according to the perspectives of managers in Jordanian-listed industrial companies, there exists a significantly high level of top management support, a moderately robust internal auditors' digital competency, and a considerable degree of effectiveness of electronic internal audit tasks within these listed industrial companies in Jordan.

Table 3 illustrated the simple regression coefficients for the relationship between top management support and the internal auditors' digital competency, in the Simple Linear regression test (The First Hypothesis).

Table 3. The Simple Linear Regression Analysis

Constructs	t-value	Sig.	Result of Hypothesis
Top management support	5.422	0.000	Accepted
Dependent variable: the internal auditors' digital competency			
R ² = 0.218			

The outcomes presented in Table 3 display a significant and favorable correlation between top management support and the internal auditors' digital competency. This assertion is bolstered by a p-value of 0.000, falling below the significance threshold of 0.05, alongside a T-value of 5.422.

In practical terms, the support of top management into Jordanian-listed industrial companies correlates with the internal auditors' digital competency. Furthermore, the results indicate that the R-squared value (R²) stands at 0.218, indicating that top management support explains 21.8% of the observed variability in internal auditors' digital competency, with the remaining 78.2% attributed to other influential factors. Hence, these findings lend support to the initial hypothesis, which suggests that the digital competence of internal auditors in Jordanian industrial companies is affected positively by the top management support.

Table 4 illustrated the simple regression coefficients for the relationship between the internal auditors' digital competency and the effectiveness of electronic internal audit

tasks, in the Simple Linear regression test (The Second Hypothesis).

Table 4. The Simple Linear Regression Analysis

The outcomes presented in Table 4 display a significant and favorable correlation between the internal auditors' digital competency and effectiveness of electronic internal audit tasks. This assertion is bolstered by a p-value of 0.000, falling below the significance threshold of 0.05, alongside a T-value of 6.271. In practical terms, the internal auditors' digital competency into Jordanian-listed industrial companies correlates with the effectiveness of electronic internal audit tasks.

Furthermore, the results indicate that the R-squared value (R²) stands at 0.346, indicating that internal auditors' digital competency explains 34.6% of the observed variability in the effectiveness of electronic internal audit tasks, with the remaining 65.4% attributed to other influential factors. Hence, these findings lend support to the initial hypothesis, which suggests that the effectiveness of electronic internal audit tasks in Jordanian industrial companies is affected positively by the internal auditors' digital competency.

Table 5 presents the outcomes of the Hierarchical Regression analysis conducted to examine the third hypothesis. This hypothesis posits that internal auditors' digital competency serves as a mediating factor in the correlation between top management support and the effectiveness of electronic internal audit tasks within Jordanian-listed industrial companies (The Third Hypothesis).

Table 5. Results of the hierarchical regression analysis

H	Direction of influence	Beta coefficients	Direct Effect		Indirect Effect	
			T-Value	P-value Sig(t)	T-Value	P-value Sig(t)
H 1	Independent on the mediator	0.358	5.422	0.000***		
H 2	The mediator on the dependent	0.477	6.271	0.000***	2.725	
H 3	Independent on dependent with mediator	0.165				0.001***

Table (5) shows the values of the direct and indirect effects of the relationship of the mediating variable (internal auditors'

digital competency) on the relationship between independent variable (top management support) and dependent variable (the effectiveness of electronic internal audit tasks).

Reviewing the values of the direct effects in the table 5 shows that the T-value of the effect of the independent variable on the mediator variable reached (5.422). The direct effect of the mediator variable on the dependent variable was (6.271). These effects were expressed using standard values. It is noted that all the values of these effects (T-Value) were statistically significant, as were all P-Values less than 0.05, and at the same time they are Less than 0.001 and therefore it was symbolized with the symbol (***) , which means that all the direct effects are positively significant. On other hand, the bath coefficient of an indirect effect (the mediating variable) was 0.165, and the P-value less than 0.05 given that the mediating role of internal auditors' digital competency were significant. Hence, these findings lend support to the initial hypothesis, which suggests that internal auditors' digital competency serves as a mediating factor in the correlation between top management support and the effectiveness of electronic internal audit tasks within Jordanian-listed industrial companies.

5. CONCLUSION

This study investigated how digital competency mediates the relationship between top management support and the effectiveness of electronic internal audit tasks in Jordanian-listed industrial companies. The research expanded the current literature by delving into the impact of top management support on internal auditors' digital competency, and the effect of internal auditors' digital competency on the effectiveness of electronic internal audit tasks within Jordanian-listed industrial companies, while also introducing internal auditors' digital competency as a mediating factor in this" context. The findings of this study offer both theoretical and empirical support for the correlation between the top management support and the internal auditors' digital competency, also support the correlation between internal auditors' digital competency and the effectiveness of electronic internal audit tasks within Jordanian-listed industrial companies. Furthermore, it underscores the role of internal auditors' digital competency as a mediating variable within this proposed model. Figure 2 succinctly summarizes the outcomes of the SPSS analysis derived from the study's model.

The current research findings indicate a significantly positive relationship between top management support and the internal auditors' digital competency, denoted by a p-value of 0.000. These results are consistent with limited existing literature on this subject e.g., [25]. Based on these outcomes, it is advisable for industrial companies to support the internal audit units to improve the effectiveness of internal auditors. To provide training courses and all sources are needed by internal auditors within these companies, addressing concerns about internal auditors' digital efficiency is recommended. The findings also indicate a significantly positive relationship between internal auditors' digital competency and the

effectiveness of electronic internal audit tasks within Jordanian-listed industrial companies, denoted by a p-value of 0.000. These results are consistent with limited existing literature on this subject e.g., [19,25]. Based on these outcomes, it is advisable for industrial companies to focus on the digital competency to improve the effectiveness of electronic internal audits.

Moreover, the findings of this study indicate that the internal auditors' digital competency in Jordanian-listed industrial companies is significantly and positively mediated the relationship between top management support and effectiveness of electronic internal audit tasks, denoted by a p-value of 0.001.

5.1 Implications

The current study contributes practical and theoretical insights. In terms of theory, there's a noticeable gap in research concerning the digital competency specifically within industrial companies. This study strongly advocates for top management support to improve the effectiveness of electronic internal audits operating in the industrial" sector. Furthermore, existing research on electronic internal audit effectiveness has mainly concentrated on extrinsic factors impacting internal audits within companies, rather than exploring the factors related to the internal auditors themselves (intrinsic factors), which could significantly enhance the effectiveness of electronic internal audit tasks within industrial settings.

Additionally, the investigation of digital competency as a mediating element in Jordanian-listed industrial companies presents an intriguing avenue for research that could offer insights applicable to various countries, especially those in the developing world.

The practical implications of top management support and enhancing electronic internal audits within Jordanian-listed industrial companies are multifaceted, especially considering the issue of digital" competency. "The findings hold importance for regulators and decision-makers, offering insights to shape potential new regulations aimed at focus on the digital competency in internal audit departments within Jordan's industrial sector. This could ultimately help internal auditors in overseeing public funds. Given the extensive impact of digital competency on modern business, it's crucial to understand how these competencies can improve the precision and benefits of internal audit functions. Exploring the effect of top management support that provide the qualified auditors in internal audit department is also essential. Highlighting the importance of ongoing digital competency development supported by top management can foster a culture of continuous learning and improvement within the audit teams. This emphasis on continuous development aligns with the rapidly evolving technological landscape and ensures auditors remain adept at leveraging the latest digital tools and methodologies. A more effective and digitally competent internal audit function can enhance stakeholder confidence by providing timely and accurate insights. This can lead to greater trust in the company's ability to comply with regulations,

manage risks, and safeguard digital assets. Finally, Jordanian industrial companies that prioritize and invest in internal auditors' digital competency, facilitated by top management support, can gain a competitive edge. The ability to conduct thorough electronic audits efficiently can position the company as forward-thinking and capable of navigating complex digital environments effectively.

5.2 Limitations and Future Research

Like any other research, where no research exists without limitations, this research has some limitations that should be considered in future research. For example, this study is only limited to the active listed industrial companies in Jordan. In order to reach more generalizability on the respective factors affecting the effectiveness of electronic internal audit tasks context, Future studies may look into other factors that may restrict internal audit performance, such as organizational culture and pay satisfaction. Thus, further investigations are clearly required in the context of electronic internal audits to confirm the efficacy and applicability of the current research model by implementing it in several contexts as required.

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