

Antecedent of Auditors' Performance: Attitude, Environment, Organisational Support and Demographics

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Abstract

The study investigated the factors that predict the performance of internal auditors in public universities. Grounded in the theory of Social Exchange Theory and Person-Environment Fit (P-E Fit) Theory, the study examined the organisational and individual-level factors that influence the performance of internal auditors. The population consisted of internal auditors from the University of Cape Coast, Cape Coast Technical University, and the University of Environment and Sustainable Development. 40 internal auditors were selected across the three universities using a probability sampling technique, specifically simple random sampling. The study adopted a descriptive research design and data were collected using a structured questionnaire. Data collected were analysed using frequency counts and percentages for the demography of respondents and multiple regression analysis was employed to test the research hypotheses. The study showed that negative audit intents, audit environment, perceived organisational support, age, sex, and professional qualification were all found to have statistically significant effects on auditor performance, each in different directions. On the other hand, academic qualification showed no significant relationship with auditor performance. The study recommends that management of

institutions should promote ethical conduct, simplify audit environments, enhance organisational support, recognise demographic influences, and prioritise professional qualifications to improve internal auditors' performances.

Keywords: Internal Auditor Performance, Negative Audit Intents, Audit Environment, Perceived Organisational Support, Professional Qualification

Introduction

Internal audit (IA) functions are essential components of organisational governance, designed to enhance the effectiveness of risk management, internal controls, and compliance processes. As defined by the Institute of Internal Auditors (IIA), internal auditing is "an independent, objective assurance and consulting activity designed to add value and improve an organisation's operations. It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes" (The Institute of Internal Auditors, 2017, p.29). Internal auditors provide an objective assessment of the organisation's processes and performance, offering assurance on the adequacy of controls and compliance with policies (IIA, 2017). Senior management relies on IA to strengthen operational controls and mitigate risk and audit committees depend on IA to ensure internal control reliability and regulatory compliance, particularly in financial reporting (Eulerich et al., 2019). Moreover, external auditors' willingness to rely on internal audit work is often contingent on the perceived effectiveness of the IA function (Lenz & Hahn, 2015). As organisational structures become more complex and resource-intensive, IA functions have become increasingly indispensable for maintaining operational integrity and achieving strategic objectives (Behrend & Eulerich, 2019).

Institutional frameworks and policies guide the internal audit function but its success ultimately depends on the competence, integrity, and overall performance of individual internal auditors who carry out the day-to-day responsibilities of the role (Kamara, 2023; Friday et al., 2024). An effective IA system cannot function in practice without high-performing auditors who can detect irregularities, assess risk accurately, and provide reliable assurance to senior management. The quality of internal auditing is therefore inseparable from the quality of those who perform it (Shahimi, 2016; Vo Van et al., 2025). Internal auditors' performance determines whether the audit function can meet its objectives in areas such as risk management, compliance, financial reporting, and organisational governance. Therefore, the studying of performance outcomes among internal auditors is very important as it is influenced by multiple factors. As internal audit continues to gain prominence as a governance tool, studying the key drivers of auditor performance becomes critical not only for ensuring audit effectiveness but also for strengthening accountability and improving institutional outcomes (Yazid et al., 2025; Malekimehr et al., 2025).

The auditing profession demands continuous dedication and a persistent drive to enhance performance in order to produce high-quality audit outputs (Amilin, 2017; Ma'ayan and Carmeli, 2016). Globally, the role of internal auditing has evolved beyond its traditional focus on verifying financial and accounting operations to a broader evaluation of an organisation's overall activities (Algeru, 2011). According to Al-Twaijry et al. (2003), internal auditing provides two critical benefits to organisations: first, through conventional auditing, it helps prevent and detect irregularities and fraud while safeguarding organisational assets; and

second, through value auditing, it promotes economy, efficiency, and effectiveness across all organisational operations. Thus, the primary objective of internal auditing is to add value to an organisation by enhancing the economy, efficiency, and effectiveness of its activities. In Ghana, auditors are expected to conduct examinations in accordance with the standards and regulations established by the Institute of Chartered Accountants, Ghana (ICAG), with the aim of improving audit performance and ensuring outputs that align with organisational goals. Auditor performance, therefore, reflects the outcomes achieved in executing assigned responsibilities and serves as a benchmark for assessing the quality and adequacy of audit work. High-profile audit failures, such as those involving Enron, WorldCom, Parmalat, and others (Andini et al., 2017), have heightened public and client concern over auditor performance, reinforcing its critical importance in the evaluation of audit results (Chintyaningsih, 2016).

In the face of growing challenges, employee performance remains a crucial competitive advantage for organisations, directly influencing the extent to which institutions achieve their goals and objectives. Employees' work behaviours determine organisational success, with individual-level performance combining to create a synergy that drives overall organisational performance. Within this context, the internal audit team serves as the linchpin of an organisation's financial system, making the careful selection of internal auditors vital to organisational success (Salehi et al., 2022; Flayyih and Khiari, 2023). Auditor performance is influenced by multiple factors, including negative intents, such as negative audit behaviours, and the broader audit environment. Research further indicates that organisational support and individual characteristics such as sex, age, educational attainment, and professional qualification frequently impact auditors' performance (Kehinde, 2018; Khalil and Nehme, 2023; Hendrawijaya, 2019; Limbong et al., 2019; Gandhi and Solanki, 2024). In dynamic environments such as tertiary institutions, identifying the factors that predict internal auditors' performance has become increasingly critical. Moreover, individual performance may be either facilitated or constrained by situational and dispositional variables that can influence these relationships (Alsuwailem and Elnaga, 2016).

Individual characteristics such as gender have long been recognised as fundamental traits of human identity. The pursuit of gender equality relates to achieving social equity between men and women, acknowledging that gender inequality often results from structural and institutional discrimination (Halvorsen, 2019). Gender, being an inherent attribute rather than a choice, includes traits and characteristics that may influence workplace behaviour and performance. Although the internal auditing profession is not inherently tied to gender differences, it remains male-dominated, with women underrepresented. According to Jamilah et al. (2007), gender is suspected to be one of the individual-level factors influencing the performance of internal auditors, particularly in the face of increasing task complexity. Similarly, age is another critical characteristic that may impact work performance. Defined as the number of years lived since birth (Baltes and Smith, 2003), age is typically used in research to categorise individuals into life stages, shaping societal roles such as workforce participation and retirement (Shanahan et al., 2016). It is widely believed that age affects job performance, depending on the context and demands of the job. Giniger et al. (1983) applied the decremental theory of aging in their study among garment workers, suggesting that certain abilities decline with age, which can lead to a decrease in work performance over time.

According to Akinwunmi and Adeyanju (2011), education is a priceless asset of fundamental value to both individuals and society, serving as a powerful instrument for personal development and national progress. It provides individuals with a sound foundation to develop their potential and acts as a dynamic tool for driving social, economic, and political change. The wealth and advancement of a nation are largely determined by the quality and quantity of its human resources. Educational attainment refers to the academic credentials or degrees an individual has obtained, typically captured as a categorical measure in empirical studies (Akinwunmi and Adeyanju, 2011). In this study, "educated employees" refers to internal auditors who hold a PhD, master's degree, bachelor's degree, or other recognised academic qualifications. These academic credentials are widely used by organisations as indicators of individuals' skill levels and potential productivity (Benson et al., 2004). In addition to academic qualifications, professional qualifications, acquired through membership in recognised professional bodies such as ICAG, ACCA, ANAN, and ICCA, also play a role. Professional qualifications equip individuals with specialised technical skills critical for performing roles in fields such as accounting and auditing. Professionals are expected to adhere strictly to codes of conduct and ethical obligations set by their professional bodies. Such certifications, often achieved through rigorous training and examinations, enhance individuals' expertise and credibility in their profession. Therefore, the possession of advanced academic degrees and professional accounting certifications is considered a major determinant of internal auditors' performance (He, 2015).

Supervision and internal auditing are central elements for promoting effective public administration and good governance in institutions such as universities (Fonseca et al., 2020; Dichabe, 2020). Internal auditors assess organisational efficiency, financial accountability, and compliance with regulatory standards; however, the actual performance of internal auditors often falls short of expectations, particularly in public sector institutions (Nerantzidis et al., 2022; Nankunda, 2018). Challenges such as the absence of adequate performance indicators and the difficulty in measuring public service outputs make it hard to assess audit quality effectively. As a result, there are ongoing concerns about the extent to which internal auditors can consistently detect system violations and uphold auditing standards and ethical codes (Usman et al., 2014). Auditor performance is key because it reflects both the quality of financial oversight and the integrity of governance processes, but research has shown that several factors including negative auditing behaviours, audit environment quality, perceived organisational support, and individual characteristics such as sex, age, academic qualification, and professional qualification may influence performance outcomes (Khalil and Nehme, 2023; Bananuka et al., 2021; Kehinde, 2018; Sari et al., 2021; Ali and Davies, 2003; Wiratmaja and Suardana, 2018; He, 2015). In many universities, despite the existence of internal audit units, challenges related to auditor effectiveness and institutional support persist (Ishola et al., 2018). Given this context, it is important to investigate the factors that predict and influence the performance of internal auditors in public universities to provide intuitions that could strengthen audit quality, accountability, and overall institutional governance. Previous studies have explored factors influencing auditor performance, such as audit environment, organisational support, and individual characteristics like age, sex, and qualifications (Usman et al., 2014; Ali et al., 2023; Aroztegi et al., 2024; Atmaja and Sukartha, 2021; Gowrishankar et al., 2017; Limbong et al., 2019; Ishola et al., 2018), limited research has focused specifically on internal auditors within universities. Moreover, most existing studies have examined these factors separately rather than combining both organisational and personal factors in a single

model. This study addresses this gap by investigating how organisational and individual factors jointly influence internal auditors' performance in public universities.

This study is significant because in the public universities, where internal audit serves as a major control and accountability mechanism, understanding what drives or hinders auditor performance has direct implications for institutional transparency, governance, and financial integrity. This study fills a gap in existing literature by offering an integrated model that explains how a combination of internal dispositions (e.g., negative intents), work environment factors, perceived organisational support, and individual characteristics collectively influence audit performance. This contributes to theoretical advancement in auditing, governance, and behavioural accounting research by linking organisational psychology with public sector accountability mechanisms. Furthermore, university administrators and audit committees can use the findings from this study to strengthen internal audit functions by improving work environments, providing targeted support, and refining recruitment or training practices. Second, internal auditors themselves will gain awareness of how their attitudes and perceptions influence their performance, allowing for self-improvement and reflective practice. Third, policymakers and regulators can use the findings to design standards or frameworks that support professional conduct and organisational effectiveness in the public sector. Finally, researchers and scholars in the fields of auditing, management, and education can build upon this work to further explore performance-related issues in other public institutions.

Literature Review

Theoretical Review

Social Exchange Theory (SET)

Social Exchange Theory, proposed by Blau (1964), explains social behaviour in terms of an exchange process where individuals seek to maximise benefits and minimise costs. The theory posits that relationships whether personal or organisational are built on reciprocal exchanges where positive actions from one party encourage positive responses from another. In organisational settings, employees evaluate the support, recognition, and fairness they receive and adjust their behaviour accordingly. If individuals perceive the organisation as supportive and fair, they are more motivated to contribute positively to organisational goals, demonstrating higher levels of commitment, ethical behaviour, and performance. In relation to this study, the provides a foundation for understanding how internal auditors' perceptions of organisational support and the audit environment influence their performance. If internal auditors feel that their organisation values their contributions, provides the necessary resources, and fosters a supportive audit environment, they are more likely to reciprocate through increased diligence, ethical conduct, and improved performance. Conversely, a lack of support or a negative environment may lead to decreased motivation and dysfunctional audit behaviours. Thus, this theory helps explain the expected relationships between negative intents, audit environment, perceived organisational support, and internal auditors' performance in this study.

Person-Environment Fit (P-E Fit) Theory

Person-Environment Fit Theory, as described by Kristof (1996), suggests that an individual's work outcomes, such as performance and job satisfaction, are heavily influenced by the degree of compatibility between the individual's personal characteristics and the demands or

culture of the work environment. The theory asserts that when there is a strong fit between personal attributes such as skills, values, or demographics and the work environment, individuals experience greater well-being, motivation, and effectiveness. Poor fit, however, can lead to dissatisfaction, reduced performance, and increased turnover intentions. Applying P-E Fit theory to this study, it is anticipated that internal auditors' demographic characteristics such as age, sex, academic qualification, and professional qualification interact with their work environment to affect performance outcomes. For instance, auditors whose educational background, professional training, and personal attributes align well with the complexity and demands of their organisational environment are more likely to perform effectively. However, a mismatch between the auditor's characteristics and environmental expectations could lead to lower performance levels. This theory therefore complements the Social Exchange Theory by indicating how individual differences, alongside organisational factors, influence internal auditors' performance.

Empirical Review

Antecedent of Performance of Auditors

Auditors' Attitude

Several studies have highlighted the relationship between auditors' attitudes and their performance. Rahman et al. (2019) investigated whether audit features, such as positive or negative audit experiences, influence auditor performance and found a significant association between audit characteristics and firm performance through the mediating role of auditor performance. Their study suggests that positive or negative audit features substantially impact the success of both the company and the auditor. In a related study, Khalil and Nehme (2023) explored differences in junior auditors' gender and attitudes towards performance evaluation, reporting that negative perceptions among auditors were linked to unfavourable evaluations of their performance. Usman et al. (2014) also demonstrated a positive and significant partial effect of competence, independence, and professional attitude on inspectorate work achievement in South Sulawesi, indicating that auditors' attitudes significantly contribute to improvements in audit quality and, consequently, performance. Dali and Mas'ud (2014) further confirmed that professionalism, which reflects auditors' attitudes, had a positive effect on both job satisfaction and auditor performance, indicating that higher levels of professionalism foster better performance outcomes. Similarly, Aghazadeh et al. (2025) presented a framework linking auditors' work attitudes to performance, emphasising that positive attitudes empower auditors with autonomy, ultimately enhancing audit quality and performance outcomes. Finally, Meidawati et al. (2019) found that auditor ethics and attitudes (whether positive or negative) significantly affect auditor performance, as reflected in audit quality measures. Based on these findings, it is hypothesised that there is a statistically significant influence of negative intents on internal auditors' performance.

H_{1a}: There is a statistically significant influence of negative intents on internal auditors' performance.

Audit Environment

The audit environment has been found to play a significant role in influencing internal auditors' performance. Ali et al. (2023) explored the impact of negative audits and audit environments on the performance of internal auditors in Iraqi manufacturing enterprises,

revealing a positive relationship between audits environment and internal auditor performance. Similarly, Satria (2022) examined the relationship between the company's work environment, including the audit environment, and auditor performance, finding that changes in the audit environment significantly influenced auditors' performance, mediated by overall firm performance. Bananuka et al. (2021) also stressed the importance of environmental factors by showing that organizational pressure and the broader audit environment significantly affected firm performance, including the performance of internal auditors. Ghadhab et al. (2019) further supported this view by identifying firm-related environmental factors as significant determinants of auditors' performance, indicating that any shifts in environmental elements could substantially alter auditors' effectiveness. Moreover, Benlarbi and Naama (2024) specifically investigated the role of the audit environment in reducing dysfunctional auditor behaviour (DAB), which is closely linked to performance outcomes. Their study concluded that the audit environment explained 59.7% of the variance in reducing DAB, establishing a significant and positive relationship between an improved audit environment and better auditor behaviour and performance. Based on these findings, it is hypothesised that there is a statistically significant influence of audit environment on internal auditors' performance.

H_{1b}: There is a statistically significant influence of audit environment on internal auditors' performance.

Organisational Support

Organisational support has been recognised as a key factor influencing auditors' performance. Aroztegi et al. (2024) analysed the impact of role overload on organisational commitment and job satisfaction in audit firms, highlighting the mediating role of perceived organisational support in these outcomes. Their findings demonstrated that organisational support significantly mediated the relationship between role overload and job satisfaction, suggesting that organisational support is vital for enhancing critical auditor work outcomes, including performance. Similarly, Sanusi et al. (2023) examined the adoption of digital audit practices and found that management support, conceptualised as organisational support, had a significant positive effect on auditor performance, indicating the necessity of holistic cooperation from stakeholders to improve auditors' effectiveness. Kehinde et al. (2017) further supported this relationship by empirically establishing a positive and significant influence of management support (organisational support) on the task performance of internal auditors in South West Nigeria's tertiary institutions. In a subsequent study, Kehinde (2018) also confirmed that management support was a significant determinant of internal auditors' task performance, underlining the importance of organisational backing for achieving high audit quality. Based on the cumulative findings of these studies, it is hypothesised that there is a statistically significant influence of organisational support on internal auditors' performance.

H_{1c}: There is a statistically significant influence of organisational support on internal auditors' performance.

Sex

Gender differences have been widely studied in relation to workplace behaviour and performance. Bakshi (2012) notes that the behaviour of men and women varies due to

differences in upbringing, socialisation, and biological, psychological, and social factors. Several studies have explored the influence of gender on auditors' performance. Khalil and Nehme (2023) investigated gender differences in junior auditors' attitudes towards performance evaluation and revealed that female auditors expressed more negative views regarding performance evaluations compared to their male counterparts. In a similar vein, Larkin and Hooks (1990) compared male and female auditors within the internal audit division of a large multinational corporation and identified certain personal characteristics associated with success. Although females achieved higher academic grades, demonstrated greater motivation, and reported slightly higher job satisfaction, male internal auditors were rated as having higher performance and exhibited stronger organisational and professional commitment. Contrastingly, Sari et al. (2021) examined factors affecting auditor performance at the Makassar City Regional Inspectorate and reported that gender had a positive and significant effect on the performance of internal auditors, with male auditors demonstrating higher levels of commitment, responsibility, and career advancement compared to female auditors. Furthermore, Atmaja and Sukartha (2021) analysed the influence of self-efficacy, professional skepticism, and gender on audit judgments and found that gender had a positive effect on audit judgment. Specifically, female auditors were found to demonstrate better moral considerations, which in turn improved their audit judgments. These findings suggest that gender-related factors, whether social, cultural, or individual, play a significant role in shaping internal auditors' performance. Consequently, it is hypothesised that there is a statistically significant influence of sex on internal auditors' performance.

H_{1d}: There is a statistically significant influence of sex on internal auditors' performance.

Age

Age has been identified as an important demographic factor influencing employee and auditor performance. Gowrishankar et al. (2017) examined the relationship between workforce age diversity and employee performance and found that age diversity significantly contributes to predicting performance outcomes, with older employees demonstrating greater maturity and enhanced problem-solving abilities. However, contrasting evidence was provided by Sarmiento et al. (2007), who explored determinants of perceived job performance among shop-floor employees in Mexico and reported that age did not show a significant association with job performance, suggesting that the influence of age might vary across different work contexts. Giniger et al. (1983) applied the decremental theory of aging in their study among garment workers, proposing that aging leads to a decline in certain abilities, thereby negatively affecting work performance over time. Their findings indicated that performance may decrease as workers age. Similarly, Ali and Davies (2003) found that in the context of rubber tappers, total work output increased with age up to the mid-40s, after which performance gradually declined, implying a curvilinear relationship between age and performance. On the other hand, Hendrawijaya (2019) analysed various demographic factors influencing employee performance and revealed that age has a significant positive effect, with older employees demonstrating greater responsibility, decision-making capacity, emotional control, and tolerance, all of which enhance performance outcomes. Drawing from these mixed findings, it is hypothesised that there is a statistically significant influence of age on internal auditors' performance.

H_{1e}: There is a statistically significant influence of age on internal auditors' performance.

Academic Qualification

Several studies have explored the impact of academic qualifications on auditor performance, with mixed findings. Makyanie and Witjaksono (2022) examined the effect of professionalism, experience, and education level on the performance of young auditors in public accounting offices and found that the level of education had no significant effect on young auditors' performance. In contrast, Limbong et al. (2019) investigated the influence of independence, professionalism, education level, and work experience on auditor performance and reported that the level of education significantly improved the quality of auditors' work. Similarly, Wiratmaja and Suardana (2018) analysed the factors affecting auditors' performance in public accounting offices in Bali and discovered that auditors with higher levels of education possessed broader insights and greater responsibility, which significantly enhanced their ability to perform their duties effectively. These findings suggest that while some studies indicate no significant influence of academic qualification, others highlight its role in enhancing auditors' work performance. Therefore, it is hypothesised that there is a statistically significant influence of academic qualification on internal auditors' performance. H_{1f}: There is a statistically significant influence of academic qualification on internal auditors' performance.

Professional Qualification

The influence of professional qualifications on auditors' performance has been widely examined. Ishola et al. (2018) investigated the contributions of educational and professional certifications to job performance among financial accounting staff at a university in Nigeria and found that bursary staff with professional qualifications reported higher job performance than non-certified staff. Among the certified employees, those holding an ICAN qualification demonstrated higher job performance compared to those with ANAN, ACCA qualifications, or no professional certification at all. Similarly, He (2015) indicated that certification is closely linked to accountants' job performance and professionalism across various job outcomes and contexts, reporting certification as a major driver of performance outcomes for accountants. Furthermore, Gandhi and Solanki (2024) examined the influence of professional qualifications and gender on auditors' fraud detection skills and reported a significant difference in fraud detection abilities reflected through auditor performance between CA-certified and non-CA accounting professionals. This finding suggests genuine disparities in skills, strategies, or experiences between professionally certified and non-certified individuals. Based on these studies, it is hypothesised that there is a statistically significant influence of professional qualification on internal auditors' performance.

H_{1g}: There is a statistically significant influence of professional qualification on internal auditors' performance.

Conceptual Framework

The conceptual framework for this study was constructed through a comprehensive of empirical literature. Negative audit (internal auditor negative intents) refers to behaviours where internal auditors compromise audit integrity by downplaying findings, overlooking irregularities, disclosing confidential information, issuing unsupported conclusions, allowing biases, delaying assignments, or using their position for undue influence. This construct was measured through items that assess the extent to which internal auditors engage in such unethical or inappropriate behaviours. Audit environment refers to the internal and external

conditions influencing audit work, including the complexity of the institution's accounting information system, the level of competitive pressure to adopt computer-assisted audit tools and techniques (CAATs), and the perceived support from professional accounting bodies for the use of such technologies. Perceived organisational support captures employees' beliefs about how much the organisation values their contributions and cares about their well-being, considering aspects such as appreciation for extra effort, responsiveness to employee needs, concern for employee satisfaction, and recognition of individual goals and accomplishments. Internal auditor performance refers to the efficiency, effectiveness, and professionalism with which internal auditors carry out their duties, including timely attendance and task completion, risk identification, recommendation of corrective actions, collaboration with team members, leadership initiative, adherence to confidentiality, and demonstration of strong technical knowledge and professional conduct.

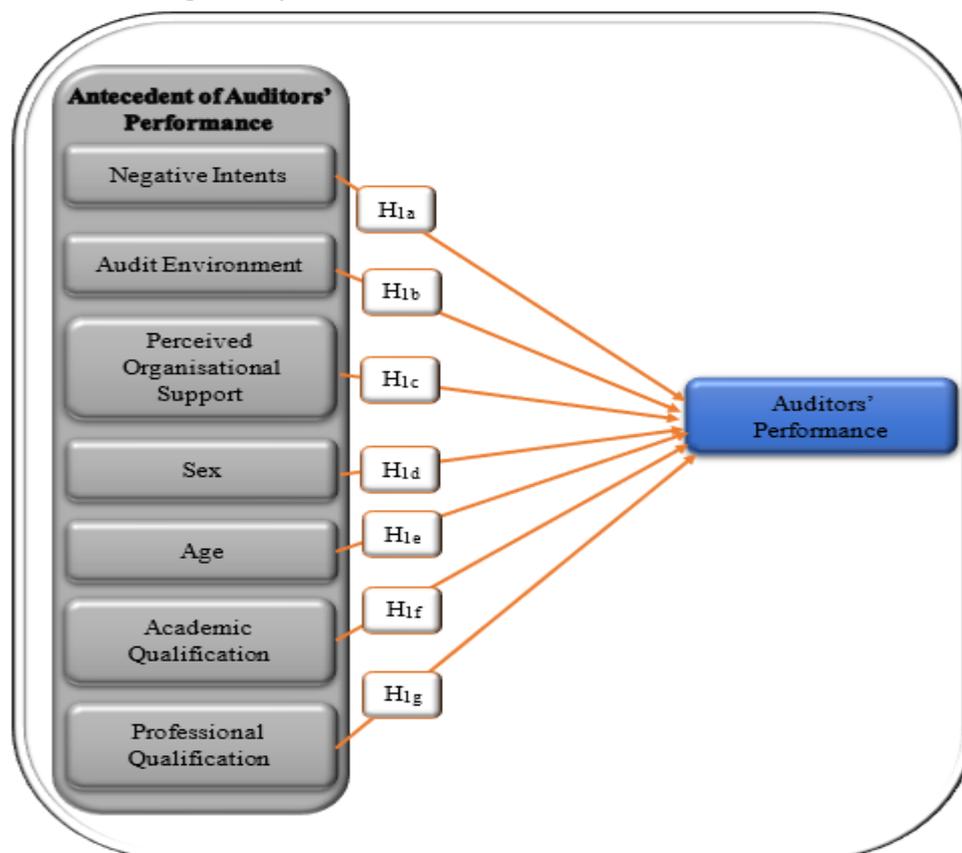


Figure 1: Antecedents of Auditors' Performance
Source: Researcher's Construct (2025)

The conceptual framework for this study illustrates that auditors' performance is influenced by several antecedent factors. Specifically, the model proposes that negative intents (unethical or biased auditor behaviours), the audit environment (including technological and institutional support factors), and perceived organisational support (the degree to which auditors feel valued and supported) have direct effects on auditors' performance. Moreover, demographic characteristics such as sex and age, as well as academic qualification and professional qualification, are hypothesised to influence internal auditors' performance. Altogether, the framework reflects a multidimensional approach, acknowledging both personal and organisational determinants in shaping the performance outcomes of internal auditors.

Research Methods

Research Design and Sampling

The study adopted a descriptive research design, as indicated by Siedlecki (2020), aimed at identifying and analysing factors related to the phenomenon under investigation. The design was both analytical and correlational, as it examined the variables and their interrelationships. The sample consisted of internal auditors from the University of Cape Coast, Cape Coast Technical University, and the University of Environment and Sustainable Development. These internal auditors were selected based on their expertise, competencies, and ability to perform their assigned duties in producing high-quality audit reports. A probability sampling technique, specifically simple random sampling, was employed. This technique allows each member of the population an equal chance of being selected, ensuring simplicity and reducing bias. Out of a total of 40 internal auditors, 23 were from the University of Cape Coast, 10 were from the University of Environment and Sustainable Development, and 3 were from Cape Coast Technical University.

Data Collection and Instrumentation

The survey was administered to internal auditors at the University of Cape Coast, the Cape Coast Technical University, and the University of Environment and Sustainable Development. Internal auditors at these universities were informed about the purpose of the study and assured that their participation was voluntary, anonymous, and confidential. To minimise response bias, the researcher ensured that all survey statements were clearly understandable and avoided socially undesirable or overly direct questions about individual behaviours. Primary data were collected using structured questionnaires, with items adapted from existing validated instruments. Negative audit (internal auditor negative intents) was measured using items adapted from the Employee Experience Survey Template by Smart Survey (n.d.). Audit environment items were adapted from Siew et al. (2020), focusing on accounting system complexity, competitive pressures, and professional body support. Perceived organisational support was measured using the scale developed by Eisenberger et al. (1986), while internal auditor performance was assessed using items adapted from the Staff Performance Evaluation Questionnaire by the University of the Fraser Valley (n.d.). All items were measured on a five-point Likert scale, and adaptations were made to suit the internal auditing context. The collected data were assessed for validity and reliability, with the results presented in Table 1. According to Zhang et al. (2021), construct validity and reliability indicate how well the results obtained from the measures align with the underlying theoretical constructs. As suggested by Hair et al. (2011), a satisfactory measurement model should have internal consistency reliability above the threshold value of .708. In this study, all constructs exceeded this threshold, confirming that the questionnaire demonstrated acceptable validity and reliability.

Table 1

Validity and Reliability

Scale	Number of Items	Cronbach's Alpha
Negative Audit (Internal Auditors' Negative Intents) (NA)	9	.851
Audit Environment (AE)	11	.792
Perceived Organisational Support (POS)	16	.837
Internal Auditors' Performance (IAP)	19	.948
Overall	55	.871

Source: Field Data (2025)

Data Processing and Analyses

All responses from the questionnaire were analysed using both descriptive and inferential statistical techniques with the aid of SPSS (version 27). The demographic characteristics of the respondents were summarised using simple frequency counts and percentages. For the inferential analysis, multiple regression analysis was employed to test the research hypotheses. To ensure the validity of the multiple regression results, key assumptions were tested, including normality, linearity, multicollinearity, and autocorrelation, along with the assessment of the overall model fit. All statistical tests were conducted at a significance level of .05.

Results and Findings

The background information of internal auditors was sought. The information elicited related to sex, age, academic qualification and professional qualification. The purpose for the inclusion of the background data of the respondents was to have an idea about the general information of the internal auditors as these have implications for the findings of this current study. The results are presented in Table 3 using frequency counts and percentages.

Table 2
Demography of Respondents

Variable	Sub-scale	Frequency	Percentages
Sex	Male	26	65.00
	Female	14	35.00
Age	Below 30 years	9	22.50
	31 – 40 years	15	37.50
	41 – 50 years	12	30.00
	Above 50 years	4	10.00
Academic Qualification	PhD	1	2.50
	Masters	25	62.50
	Bachelor	13	32.50
	Others	1	2.50
Professional Qualification	ICAG	24	60.00
	ACCA	10	25.00
	None	6	15.00

Source: Field Data (2025)

From Table 2, the majority of the respondents were male, representing 26 (65.00%), while females constituted 14 (35.00%). This indicates a male dominance within the internal auditing workforce surveyed. Regarding age, the largest group of internal auditors fell within the 31–40 years range, accounting for 15 (37.50%), followed by those aged 41–50 years at 12 (30.00%). Respondents below 30 years comprised 9 (22.50%), while those above 50 years were the least represented at 4 (10.00%), suggesting that the majority of the auditors were relatively young to middle-aged. With respect to academic qualifications, a significant proportion of the auditors, 25 (62.50%), possessed a master’s degree, followed by 13 (32.50%) who held bachelor’s degrees. Only 1 (2.50%) auditor reported having a PhD, and another 1 (2.50%) fell into the 'Other' category. This shows that a high educational background was common among the respondents. In terms of professional qualifications,

most of the internal auditors, 24 (60.00%), were members of the Institute of Chartered Accountants, Ghana (ICAG). Another 10 (25.00%) held qualifications from the Association of Chartered Certified Accountants (ACCA), while 6 (15.00%) indicated that they had no professional qualification. The majority's affiliation with ICAG shows a strong local professional orientation among the auditors surveyed.

Normality Test

Assessing the normality of data is a key prerequisite for many statistical tests, as parametric analyses assume that the data follow a normal distribution. Normality can be evaluated using two main approaches: graphical methods and numerical methods, including statistical tests (Bland, 2015; Campbell et al., 2010). Although statistical tests offer an objective means of assessing normality, they tend to lack sensitivity with small sample sizes and become overly sensitive with large samples. Among the available methods for evaluating normality, the most commonly used are the Shapiro–Wilk test, Kolmogorov–Smirnov test, skewness, kurtosis, histograms, box plots, P–P plots, Q–Q plots, and comparisons of mean and standard deviation (Mishra et al., 2019). For this study, skewness and kurtosis were selected due to their demonstrated consistency and reliability across both small and large sample sizes (Kim, 2013). Deviations from normality are generally indicated when skewness and kurtosis values are greater than +3 or less than -3 (Mishra et al., 2019; Barton and Peat, 2014; Kim, 2013). With a sample size of 40, all variables in this study recorded skewness and kurtosis values within the acceptable range. Moreover, the approximate equality between the mean and median values further confirmed the normal distribution of the data. These results validated the use of parametric statistical techniques for subsequent data analysis. The detailed results are presented in Table 3.

Table 3

Normality Test

Variable		Statistic	Std. Error
Negative Audit (Internal Auditors' Negative Intents) (NA)	Mean	3.41	.086
	Median	3.56	
	Skewness	-1.537	.374
	Kurtosis	2.800	.733
Audit Environment (AE)	Mean	2.97	.099
	Median	2.82	
	Skewness	.758	.374
	Kurtosis	-.534	.733
Perceived Organisational Support (POS)	Mean	2.87	.094
	Median	2.66	
	Skewness	1.513	.374
	Kurtosis	2.919	.733
Internal Auditors' Performance (IAP)	Mean	1.78	.071
	Median	2.00	
	Skewness	.553	.374
	Kurtosis	2.735	.733

Source: Field Data (2025)

Hypothesis

The relationship between negative audit, audit environment, perceived organisational support, sex, age, academic qualification, professional qualification, and internal auditors' performance was analysed using multiple regression analysis, with the results presented in Table 4. The multiple correlation coefficient (R) was found to be .784, indicating a strong, high, and positive relationship between the independent variables and the dependent variable. Since the predicted value was obtained as a linear combination of the independent variables, the coefficient suggests a very strong overall association. The coefficient of determination (R^2) was .559, meaning that approximately 55.90% of the variance in internal auditors' performance was explained by the model, and this R^2 value was statistically significant at the 5% level.

The Durbin-Watson statistic was 2.144, which is close to the ideal value of 2, suggesting that the assumption of independent residuals was satisfied and that there was no first-order linear autocorrelation in the data. Furthermore, following Ringle et al. (2023), the assessment of Variance Inflation Factor (VIF) values revealed that all VIFs were below the critical threshold of 5, indicating that multicollinearity was not a concern in the model. Furthermore, the F-test for the overall model was statistically significant ($F = 5.802$, $p < .001$), confirming the presence of a reliable linear relationship between the independent variables and the dependent variable. Overall, these results indicate that the model employed in the study was statistically sound and satisfactory.

Table 4

Multiple Regression Analysis of the Antecedents of Auditors' Performance

Variable	β	Std. Error	t-value	p-value	VIF	Tolerance
(Constant)	4.010	.553	7.247	< .001**		
NA	-.473	.104	-3.768	< .001**	1.145	.873
AE	-.479	.133	-2.574	.015**	2.516	.397
POS	.478	.124	2.901	.007**	1.968	.508
Sex	-.348	.119	-2.440	.020**	1.479	.676
Age	-.436	.063	-3.321	.002**	1.250	.800
AQ	-.162	.099	-1.275	.212	1.169	.856
PQ	.279	.079	2.116	.042**	1.263	.792
R	=	.784	Durbin Watson	=	2.144	
R^2	=	.559	F-value	=	5.802	
adj R^2	=	.463	p-value	=	< .001**	
Mean of DV	=	1.784	Akaike crit. (AIC)	=	52.658	
SD of DV	=	.450	Bayesian crit. (BIC)	=	56.036	

** $p < .05$; Dependent Variable (DV) = Internal Auditors' Performance (IAP); NA = Internal Auditors' Negative Intents; AE = Audit Environment; POS = Perceived Organisational Support; AQ = Academic Qualification; PQ = Academic Qualification

Source: Field Data (2025)

H_{1a}: There is a statistically significant influence of negative intents on internal auditors' performance.

The results on H_{1a}, which examines the influence of negative intents on internal auditors' performance established that there was a statistically significant negative relationship

between negative intents and internal auditors' performance ($\beta = -.473$, $t(40) = -3.768$, $p < .001$). This implies that internal auditors who engage more frequently in negative audit behaviours such as downplaying or omitting findings, overlooking irregularities, or allowing personal biases to influence audit outcomes tend to demonstrate poorer performance. These unethical actions undermine audit quality, compromise the effectiveness of internal audit functions, and damage organisational trust. Thus, the null hypothesis (H_{0a}) was rejected.

H_{1b} : There is a statistically significant influence of audit environment on internal auditors' performance.

The results on H_{1b} , which investigates the influence of audit environment on internal auditors' performance indicated a statistically significant negative relationship between audit environment and internal auditors' performance ($\beta = -.479$, $t(40) = -2.574$, $p = .015$). This suggests that complex or pressured audit environment overwhelm auditors, reduce audit efficiency, and negatively impact task performance as unfavourable work environments hinder auditors' effectiveness. Thus, the null hypothesis (H_{0b}) was rejected.

H_{1c} : There is a statistically significant influence of organisational support on internal auditors' performance.

The results on H_{1c} , which examines the influence of organisational support on internal auditors' performance showed a statistically significant positive relationship between organisational support and internal auditors' performance ($\beta = .478$, $t(40) = 2.901$, $p = .007$). This means that internal auditors who perceive higher organisational support such as being valued, cared for, and recognised by their institutions tend to perform better. Thus, the null hypothesis (H_{0c}) was rejected.

H_{1d} : There is a statistically significant influence of sex on internal auditors' performance.

The results regarding H_{1d} , which determines the influence of sex on internal auditors' performance revealed a statistically significant negative relationship between sex and internal auditors' performance ($\beta = -.348$, $t(40) = -2.440$, $p = .020$). This indicates that that gender differences exist in the performance outcomes among internal auditors, possibly due to differences in task management styles, confidence levels, or perceived organisational support. Leadership initiative, task management, and audit completion timelines have been perceived or performed differently across male and female auditors. Thus, the null hypothesis (H_{0d}) was rejected.

H_{1e} : There is a statistically significant influence of age on internal auditors' performance.

The results pertaining to H_{1e} , which investigates the influence of age on internal auditors' performance established a statistically significant negative relationship between age and internal auditors' performance ($\beta = -.436$, $t(40) = -3.321$, $p = .002$). This implies that internal auditors grow older, their performance decline slightly, possibly due to the natural aging effects on cognitive and physical abilities, especially in areas requiring speed, responsiveness, and adaptability to new audit procedures or technologies. Thus, the null hypothesis (H_{0e}) was rejected.

H_{1f}: There is a statistically significant influence of academic qualification on internal auditors' performance.

The results on H_{1f}, which examines the influence of academic qualification on internal auditors' performance showed no statistically significant relationship between academic qualification and internal auditors' performance ($\beta = -.162$, $t(40) = -1.275$, $p = .212$). This means that holding a higher academic degree, such as a master's or PhD, does not necessarily result in better audit task performance, leadership initiative, or risk identification compared to those with lower academic qualifications. Practical experience and professional attitude appear to weigh more heavily on auditors' effectiveness than academic credentials. Thus, the null hypothesis (H_{of}) was failed to be rejected.

H_{1g}: There is a statistically significant influence of professional qualification on internal auditors' performance.

The results pertaining to H_{1g}, which determines the influence of professional qualification on internal auditors' performance indicated a statistically significant positive relationship between professional qualification and internal auditors' performance ($\beta = .279$, $t(40) = 2.116$, $p = .042$). This implies that internal auditors with professional certifications (such as ICAG or ACCA) demonstrate better task performance, leadership initiative, risk identification, and ethical compliance than those without professional qualifications. Professional bodies equip auditors with the technical skills, ethical standards, and analytical abilities necessary for high-quality performance, indicating the need of encouraging continuous professional development among university internal auditors. Thus, the null hypothesis (H_{og}) was rejected.

Discussion

The study examined the influence of negative intents on internal auditors' performance and found that there was a statistically significant negative relationship between negative intents and internal auditors' performance. This suggests that higher levels of negative auditing behaviours such as omitting critical findings, overlooking irregularities, or allowing personal interests to interfere with professional judgment are associated with lower levels of auditor performance. It indicates that internal auditors who engage in unethical practices are not able to complete audit tasks effectively, identify risks accurately, and maintain the credibility and reliability expected in their role. Ethical conduct is essential for maintaining high performance standards among internal auditors. Negative intents directly undermine auditors' ability to execute audits in line with organisational objectives and professional standards. When auditors compromise on integrity, it weakens their capacity to produce accurate, timely, and trustworthy audit reports, which are central for organisational accountability and governance. The finding of this current study aligns with Rahman et al. (2019), Khalil and Nehme (2023), Usman et al. (2014), Dali and Mas'ud (2014), Aghazadeh et al. (2025), and Meidawati et al. (2019) who collectively reported that auditors' attitudes significantly contribute to audit quality and, consequently, performance. Positive or negative audit features substantially impact the success of both the company and the auditor as higher levels of professionalism foster better performance outcomes.

Again, the study investigated the influence of audit environment on internal auditors' performance and established a statistically significant negative relationship between audit

environment and internal auditors' performance. This means that a more complex or challenging audit environment characterised by highly computerised systems, increased technological demands, and competitive pressures tends to hinder internal auditors' ability to perform effectively. As the demands of the audit setting increase without corresponding support or clarity, auditors experience reduced efficiency, difficulty accessing evidence, and greater stress in fulfilling their roles. The nature and structure of the audit environment can either facilitate or constrain the work of internal auditors. A burdensome audit environment impairs auditors' ability to manage time, apply audit techniques, or collaborate with departments effectively, thereby lowering audit quality. The results of this current study resonate with literature indicating that changes in the audit environment significantly influence auditors' performance as any shifts in environmental elements can substantially alter auditors' effectiveness (Ali et al., 2023; Satria, 2022; Bananuka et al., 2021; Ghadhab et al., 2019; Benlarbi and Naama, 2024). Benlarbi and Naama (2024) noted that the audit environment explained 59.7% of the variance in reducing dysfunctional auditor behaviour, which is closely linked to performance outcomes, establishing that an improved audit environment leads to a better auditor behaviour and increase auditor performance.

Moreover, the study examined the influence of organisational support on internal auditors' performance and showed a statistically significant positive relationship between organisational support and internal auditors' performance. This indicates that internal auditors who perceive a higher level of organisational support such as recognition, care for their well-being, and responsiveness to their concerns tend to perform better in their roles. They are motivated, committed, and proactive in executing their audit responsibilities when auditors feel that their contributions are valued and that they are supported by management. Supportive environments contribute to a sense of belonging, job satisfaction, and psychological safety, all of which enhance task execution, collaboration, and professional conduct. Therefore, support by the organisation is not just a morale booster, but a key factor that drives the effectiveness and overall performance of internal auditors. The finding of this current study corresponds with Aroztegi et al. (2024), Sanusi et al. (2023), Kehinde et al. (2017) and Kehinde (2018) implying that organisational support is vital for enhancing critical auditor work outcomes, including performance. Organisational support is a significant determinant of internal auditors' task performance, underlining the importance of organisational backing for achieving high audit quality.

Additionally, the study determined the influence of sex on internal auditors' performance and revealed a statistically significant negative relationship between sex and internal auditors' performance. This shows that performance levels varied based on gender, with one group being associated with slightly lower reported performance. This variation reflects differences in work style, access to institutional support, or perceived roles within the organisational structure, rather than inherent capability differences. Factors such as workplace culture, role expectations, or opportunities for professional development contribute to these performance disparities. Sex, as a demographic factor, influence the work experience of auditors and interact with other structural or interpersonal elements that affect their performance outcomes. The result of this current study support with studies by Nehme (2023), Larkin and Hooks (1990), Sari et al. (2021) and Atmaja and Sukartha (2021) who stressed that gender has an effect on audit judgment. Nehme (2023) revealed that female auditors expressed more negative views regarding performance evaluations compared to their male counterparts.

Larkin and Hooks (1990) discovered that although females achieved higher academic grades, demonstrated greater motivation, and reported slightly higher job satisfaction, male internal auditors were rated as having higher performance and exhibited stronger organisational and professional commitment. Atmaja and Sukartha (2021) noted that female auditors were found to demonstrate better moral considerations, which in turn improved their audit judgments. Sari et al. (2021) indicated that male auditors demonstrate higher levels of commitment, responsibility, and career advancement compared to female auditors.

Likewise, the study investigated the influence of age on internal auditors' performance and established a statistically significant negative relationship between age and internal auditors' performance. This indicates that as the age of internal auditors increases, their performance tends to decline. The decline relates to reduced agility in adapting to new audit technologies or processes, slower task execution, or a decreased capacity to manage multiple audit responsibilities as efficiently as younger counterparts. Although experience and institutional knowledge increase with age, the pace and complexity of modern audit tasks present greater challenges for older auditors. Age is not just a demographic detail but a variable that influence task performance, adaptability, and the overall responsiveness of internal auditors to evolving work environments. The result of this current study validates with literature revealing that age diversity contributes to predicting performances of employees (Gowrishankar et al., 2017; Giniger et al., 1983; Ali and Davies, 2003; Hendrawijaya, 2019). Gowrishankar et al. (2017) reported that older employees demonstrate greater maturity and problem-solving abilities. Giniger et al. (1983) propose that aging leads to a decline in certain abilities, thereby negatively affecting work performance over time indicating that performance decrease as workers age. Ali and Davies (2003) found that work output increase with age up to the mid-40s, after which performance gradually declined, implying a curvilinear relationship between age and performance. Hendrawijaya (2019) recorded that older employees demonstrate greater responsibility, decision-making capacity, emotional control, and tolerance, all of which enhance performance outcomes. In contrast, Sarmiento et al. (2007) reported that age did not show a significant association with job performance, suggesting that the influence of age might vary across different work contexts.

Also, the study examined the influence of academic qualification on internal auditors' performance and showed no statistically significant relationship between academic qualification and internal auditors' performance. This means that the level of formal education whether bachelor's, master's, or doctoral degrees does not have a measurable effect on how well internal auditors perform their duties. That is academic credentials alone may not directly influence critical aspects of audit work such as timeliness, risk identification, collaboration, or adherence to audit standards. Academic achievement does not necessarily translate into higher workplace effectiveness in internal auditing roles. This implies that the practical nature of internal audit tasks may depend more on hands-on experience, professional training, and contextual understanding than on academic qualifications. Therefore, while education remains important, it may not be the primary driver of internal auditor performance within the operational realities of their work. The result of this current study contradicts with studies by Limbong et al. (2019) and Wiratmaja and Suardana (2018) reporting that the level of education significantly improved the quality of auditors' work. Auditors with higher levels of education possess broader insights and greater responsibility, which significantly enhanced their ability to perform their duties effectively. On the other

hand, the result of this current study corroborates with Makyanie and Witjaksono (2022) who stressed that the level of education had no significant effect on auditors' performance.

Furthermore, the study determined the influence of professional qualification on internal auditors' performance and indicated a statistically significant positive relationship between professional qualification and internal auditors' performance. This means that auditors who possess professional certifications such as ICAG and ACCA tend to perform better in their roles compared to those without such qualifications. These auditors demonstrate stronger competence in applying audit standards, handle complex audit assignments, and uphold ethical practices. Professional qualification enhances the technical capacity, judgment, and effectiveness of internal auditors. Certification reflects not only specialised training but also exposure to practical auditing frameworks and ethical obligations, which directly contribute to improved task execution and audit quality. This suggests that professional accreditation serves as a reliable indicator of performance readiness in the auditing profession. The result of this current study is consistent with literature establishing that professional certification in a specialised area is a major driver of performance outcomes for workers (Ishola et al., 2018; He, 2015; Gandhi and Solanki, 2024). Ishola et al. (2018) found that bursary staff with professional qualifications reported higher job performance than non-certified staff. Among the certified employees, those holding an ICAN qualification demonstrated higher job performance compared to those with ANAN, ACCA qualifications, or no professional certification at all. He (2015) indicated that certification is closely linked to accountants' job performance and professionalism across various job outcomes and contexts, reporting certification as a major driver of performance outcomes for accountants. Gandhi and Solanki (2024) reported a significant difference in fraud detection abilities reflected through auditor performance between CA-certified and non-CA accounting professionals. This finding suggests genuine disparities in skills, strategies, or experiences between professionally certified and non-certified individuals.

Conclusion and Recommendations

The study concluded that when internal auditors engage in unethical practices such as omitting findings, overlooking irregularities, and allowing personal interests to influence audit conclusions, their effectiveness in performing audit tasks declines. Such behaviours reduce the reliability of audit outcomes and compromise the core responsibilities of internal auditors, especially in the university setting where transparency and accountability are crucial. It is recommended that universities should strengthen ethical oversight and reinforce professional integrity among internal auditors. Regular ethics training, institutional support for whistleblowing, and strict adherence to internal audit codes of conduct should be enforced. Developing an audit culture that rewards transparency and penalises unethical behaviours will help reduce the occurrence of negative audit intents and improve performance outcomes. In relation to the audit environment, the study found that a highly complex or constrained environment characterised by difficult-to-navigate systems, competitive pressure to adopt audit technologies, or limited access to data can overwhelm auditors and reduce their ability to execute tasks efficiently. Audit quality and effectiveness suffer when the work environment becomes a barrier rather than a support. It is recommended that university management should ensure that internal auditors are provided with simplified and supportive work systems. This includes streamlining accounting information systems, offering training on digital audit tools, and ensuring ease of access to

audit evidence. Institutions should also assess the level of technological and structural pressure placed on auditors and remove obstacles that hinder performance. Furthermore, the study revealed that auditors who felt valued, appreciated, and supported by their institutions demonstrated higher levels of motivation, commitment, and audit task effectiveness. This indicates that a supportive organisational climate contributes directly to improved auditor performance outcomes. It is recommended that universities should build and maintain a positive support system for internal auditors by recognising their contributions, involving them in decision-making, and ensuring access to necessary resources. Regular feedback, open communication, and institutional responsiveness to auditor concerns will help maintain a high-performing audit workforce.

With regard to auditor demographics, the study found that as auditors grow older, they may face challenges in maintaining high levels of performance, especially with tasks that require rapid adaptation to changing technologies or dynamic work processes. It is recommended that university audit departments should provide continuous professional development and adaptive training for auditors across age groups. Tailored support such as refresher courses, mentorship programmes, and flexible work arrangements can help older auditors maintain productivity while leveraging their experience and institutional knowledge. Similarly, findings from the study revealed that formal education level whether bachelor's, master's, or doctoral does not necessarily predict audit task effectiveness, independence, or ethical conduct. It is recommended that recruitment and performance assessment of internal auditors should not overly emphasise academic degrees. Instead, attention should be given to practical audit experience, professional conduct, and proven competence. Institutions may also consider combining educational background with ongoing practical skill development to ensure well-rounded performance. Finally, the study concluded that auditors who held certifications such as ICAG or ACCA demonstrated greater audit task proficiency, leadership, and adherence to ethical standards, contributing to better overall performance outcomes. It is recommended that universities should prioritise the recruitment and continuous certification of internal auditors through recognised professional bodies. Encouraging current auditors to pursue professional qualifications and supporting them with training resources will help enhance audit quality, compliance, and reliability across the institution.

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