

## Assessing the determinants and challenges of external auditors' reliance on internal audit work in Ghana

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### ABSTRACT

This study investigates the determinants and challenges of external auditors' reliance on internal audit work in Ghana, using Agency Theory and Resource Dependence Theory as theoretical frameworks. A quantitative research design was adopted, employing a descriptive survey approach to collect data from 127 respondents drawn from the Ghana Audit Service, internal audit units of Municipal and District Assemblies (MMDAs), and other public institutions within the Savanna Region. The target population comprised staff directly involved in internal and external audit processes, and the sample size was determined using a formula for finite populations, with simple random sampling and purposive sampling techniques employed. Data collection was conducted through structured questionnaires divided into demographic information and Likert-scale items measuring the degree of external auditors' reliance, influencing factors, and associated challenges. Data were analyzed using descriptive statistics (frequencies, percentages), correlation analysis, and hypothesis testing through regression and t-tests, all performed using SPSS. The findings reveal a strong positive relationship between the performance of internal auditors, particularly in their roles as systems consultants, and the extent to which external auditors rely on their work. Organizational status was found to be less significant as a barrier compared to other challenges faced by external auditors. The study concludes that the collaboration between internal and external auditors can be significantly enhanced by improving the skills and performance of internal auditors, particularly in areas related to modern auditing systems and value-added consulting roles. Challenges such as inadequate resources and limited training opportunities remain barriers to effective reliance. It is recommended that organizations invest in continuous professional development for internal auditors, particularly in contemporary computerized auditing systems, and adopt policies that promote effective collaboration between internal and external audit teams. Future research should explore the role of emerging technologies in reshaping the relationship between internal and external auditors.

**Keywords:** Auditors, Agency Theory, External Audit, Internal Audit, Resource Dependence Theory

### I. INTRODUCTION

The growing complexity of organizational structures and the heightened demand for robust risk management mechanisms have placed internal audit functions at the forefront of ensuring accountability and efficiency globally. Internal auditing plays a pivotal role in evaluating governance frameworks, risk management, and control systems to promote operational efficiency and mitigate risks (Ajao et al., 2016). Across the globe, international auditing standards, including the International Standards on Auditing (ISA), emphasize the integration of internal and external audit efforts to achieve comprehensive and reliable audits. Notably, ISA 610 outlines the circumstances under which external auditors can rely on internal audit work, highlighting the importance of competency, objectivity, and quality in internal audits.

On the African continent, internal audit functions are gaining prominence as organizations adapt to increased regulatory scrutiny and governance reforms. In many countries, internal audit serves as a tool for addressing inefficiencies in public resource management and combating corruption. Despite these advancements, challenges such as inadequate training, lack of independence, and limited technological adoption persist (Akinbuli, 2010). For example, in Nigeria, external auditors often cite the lack of objectivity and substandard reporting as barriers to relying on internal audit work (Akinbuli, 2010). These challenges highlight the need for greater investment in human capital development and standardized practices to bridge gaps in audit collaboration.

In the Sub-Saharan African (SSA) region, public sector auditing has been a critical component of governance, especially in resource-constrained economies. External auditors in SSA frequently contend with incomplete or

unreliable data provided by internal auditors, leading to inefficiencies and increased audit costs (Asiedu & Deffor, 2017). These issues are compounded by systemic challenges, including underfunded internal audit units, limited adherence to auditing standards, and insufficient regulatory enforcement. While efforts to strengthen internal audit functions, such as capacity-building programs and policy reforms, have been implemented, the extent of their impact remains uncertain.

In Ghana, internal audit functions have been institutionalized to enhance accountability and transparency, particularly within the public sector. The enactment of the Internal Audit Agency Act, 2003 (Act 658), established a framework for promoting effective internal controls and governance across public institutions. This legislation mandates that Ministries, Departments, and Agencies (MDAs), as well as Metropolitan, Municipal, and District Assemblies (MMDAs), implement internal audit systems to ensure compliance with financial and operational standards (Quampah et al., 2021). Despite this progress, the reliance of external auditors on internal audit work in Ghana remains underexplored, with limited empirical evidence on the factors influencing this relationship and the associated challenges. The relationship between internal and external auditors has been widely studied in developed economies, where external auditors frequently rely on internal audit functions to enhance audit efficiency. However, these findings are not entirely applicable to emerging economies like Ghana, where internal audit functions face unique challenges, such as inadequate resources, limited independence, and inconsistencies in professional standards (Asiedu & Deffor, 2017).

On a global level, research has predominantly focused on the private sector, with limited attention paid to public sector dynamics. Similarly, within Africa, most studies have examined the role of internal auditors in corporate governance without exploring the specific factors that influence external auditors' reliance on internal audit work in public sector institutions. Regional studies in SSA reveal significant variability in the effectiveness of internal audit functions, further emphasizing the need for localized research to understand country-specific challenges and opportunities (Akinbuli, 2010). This study is particularly pertinent in the Ghanaian context, where the collaboration between internal and external auditors remains critical for improving financial accountability and reducing waste in public resource management. Previous initiatives, such as the Memorandum of Understanding (MOU) signed between the Ghana Audit Service and the Internal Audit Agency in 2007, sought to promote cooperation. However, gaps persist in understanding how external auditors rely on internal audit work and the factors that facilitate or hinder this reliance. This study provides valuable insights into the determinants of external auditors' reliance on internal audit work and the challenges faced within Ghana's public sector. It contributes to the growing body of literature on audit collaboration in developing economies.

### 1.1 Statement of the Problem

The cooperation between internal and external auditors is vital for ensuring audit efficiency and enhancing resource management. However, the extent to which external auditors rely on internal audit work in Ghana's public sector remains unclear. Empirical studies present conflicting evidence regarding the impact of such reliance on audit fees and audit effort. For instance, some studies suggest no significant relationship (Abbass & Aleqab, 2013; Mohamed et al., 2012), while others highlight a negative association (Suwaidan & Qasim, 2010; Albawwat, 2022). Additionally, most existing research focuses on private sector organizations, with limited studies addressing public sector dynamics in emerging economies like Ghana (Stack & Malsch, 2022; Hegazy & Stafford, 2021). Moreover, external auditors face challenges such as inadequate documentation, limited capacity of internal audit units, and inconsistent application of auditing standards, which could hinder effective reliance on internal audit work (Asiedu & Deffor, 2017). This study seeks to fill these gaps by assessing the reliance of external auditors on internal audit work in Ghana's public sector. Specifically, it aims to identify the determinants influencing this reliance and the challenges faced by external auditors, providing actionable insights to enhance collaboration and audit effectiveness.

### 1.2 Research Objectives

The objectives of this study are:

- i. To assess the extent of external auditors' reliance on internal audit work in Ghana.
- ii. To examine the factors influencing the reliance of external auditors on internal audit work in Ghana.
- iii. To identify the challenges faced by external auditors when utilizing internal audit work in Ghana.

### 1.3 Research Hypothesis

The study addresses the following research hypothesis:

*H<sub>01</sub>*: The quality of the internal audit function positively impacts the reliance of external auditors on internal audit work.

*H<sub>02</sub>*: The extent of coordination between internal and external auditors positively affects audit efficiency.

*H<sub>03</sub>*: Challenges in using internal audit work negatively impact external auditors' reliance on internal audit findings.

## II. LITERATURE REVIEW

### 2.1 Theoretical Review

#### 2.1.1 Agency Theory

Agency theory explains the relationship between principals (owners or stakeholders) and agents (managers or auditors) in an organization. Proposed by Jensen and Meckling (1976), the theory asserts that external auditors act as agents of the stakeholders, providing assurance on the accuracy and reliability of financial reports prepared by management. The separation of ownership and control in organizations creates an inherent risk of information asymmetry and opportunistic behavior by managers, necessitating mechanisms like external audits. External auditors, in collaboration with internal auditors, mitigate agency risks by ensuring adherence to internal controls and compliance with financial reporting standards. Furthermore, internal auditors serve as agents for management, supporting governance processes that align with stakeholders' expectations.

#### 2.1.2 Resource Dependence Theory

Resource dependence theory, introduced by Pfeffer and Salancik (1978), emphasizes how organizations rely on internal and external resources to achieve their objectives. In the auditing context, external auditors depend on the internal audit function (IAF) for insights into the organization's internal control systems, operational risks, and governance frameworks. By leveraging internal audit work, external auditors can optimize resource utilization, reduce audit costs, and enhance efficiency. This reliance, however, depends on the IAF's competence, independence, and objectivity. Organizations with strong internal audit capabilities are better positioned to attract external audit reliance, which strengthens overall audit outcomes and operational efficiency.

### 2.2 Empirical Review

#### 2.2.1 Determinants of External Auditors' Reliance on Internal Audit Work

The reliance of external auditors on internal audit work depends on several factors, including the quality, competence, and independence of the internal audit function (IAF). Research by Sawan and Alzeban (2013) highlighted that external auditors are more likely to rely on IAFs with well-documented procedures, sufficient staffing, and access to modern auditing tools. Studies by Evans and Schwartz (2014) and Lento and Yeung (2023) further revealed that robust IAFs contribute to increased reliance, which, in turn, reduces external audit costs and enhances efficiency. However, reliance is contingent on the assurance provided by internal auditors and their adherence to professional standards.

#### 2.2.2 Benefits of Coordination between Internal and External Auditors

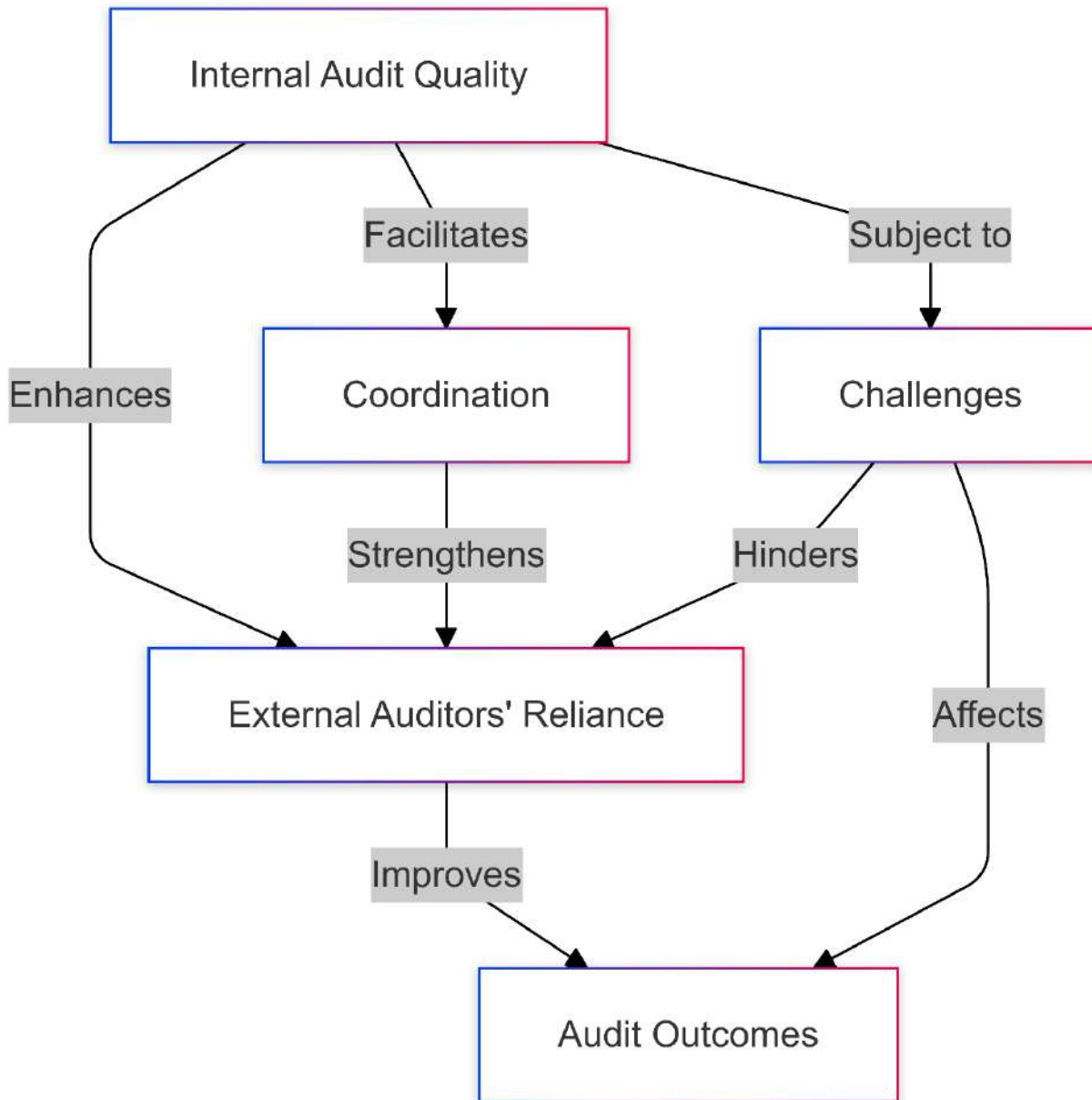
Coordination between internal and external auditors fosters audit efficiency by reducing redundancy and enhancing the effectiveness of risk assessments. Gwilliam and Alzeban (2014) argued that collaboration minimizes duplicative efforts, improves communication, and ensures that key risks are addressed. Empirical evidence from Christensen et al. (2021) confirms that organizations benefit from such coordination, as it leads to better allocation of audit resources and improved audit quality. However, the level of coordination varies across organizations, influenced by organizational practices, management attitudes, and regulatory requirements.

#### 2.2.3 Challenges in Using Internal Audit Work

Despite its advantages, reliance on internal audit work presents challenges, particularly concerning objectivity and consistency. Abbass and Aleqab (2013) observed that external auditors might question the independence of internal auditors, especially when the latter report directly to management. Suwaidan and Qasim (2010) identified issues such as resource constraints, insufficient documentation, and varying levels of expertise among internal auditors as barriers to effective reliance. These challenges underscore the need for proper evaluation mechanisms to ensure that internal audit work meets the standards required for external audit purposes.

### 2.3 Conceptual Framework

The framework as presented in Figure 1 outlines three key constructs: internal audit quality, reliance of external auditors, and audit outcomes. These are interconnected, with mediating variables such as coordination and challenges impacting the relationships.



**Figure 1**  
*Conceptual Framework for determinants and challenges of external auditors' reliance on internal audit work in Ghana*  
 Source: Author (2025)

The first relationship indicates that the quality of the internal audit function enhances the reliance placed on it by external auditors. Internal audit quality encompasses attributes such as competence, objectivity, and adherence to professional standards. High-quality internal audit functions provide reliable and credible information that external auditors can use to reduce their audit scope and effort, thereby fostering reliance. This aligns with research by Sawan and Alzeban (2013), which highlights that well-trained, independent, and adequately resourced internal audit teams increase external auditors' trust and reliance on their work.

The second relationship establishes that greater reliance by external auditors on internal audit work leads to improved audit outcomes. Audit outcomes include higher audit efficiency, reduced costs, and enhanced audit quality. When external auditors effectively utilize the work of internal auditors, they can focus more on high-risk areas, optimize resources, and deliver more comprehensive audit reports. Studies such as Prawitt et al. (2011) have documented the positive influence of external auditors' reliance on audit quality and the cost-effectiveness of audits.

The framework recognizes coordination as a mediating variable. Internal audit quality facilitates better coordination between internal and external auditors, characterized by effective communication, risk-sharing, and aligned goals. Improved coordination strengthens external auditors' reliance on internal audit work, as highlighted by Gwilliam

and Alzeban (2014). Their study found that effective collaboration between internal and external auditors enhances resource allocation and mitigates redundancies.

Challenges in using internal audit work, such as concerns over objectivity, inadequate documentation, or inconsistencies, can hinder external auditors' reliance and negatively impact audit outcomes. Suwaidan and Qasim (2010) observed that such challenges limit the extent to which external auditors integrate internal audit findings into their processes, potentially reducing audit quality. Furthermore, the framework indicates that these challenges directly affect audit outcomes, reflecting the dual impact of internal audit quality on external auditors' reliance and overall audit results.

### III. METHODOLOGY

This study adopts a quantitative research methodology to explore the factors influencing the reliance of external auditors on internal audit work in Ghana. The goal is to measure and analyze key variables that impact external auditors' decisions, identify factors affecting this reliance, and assess challenges faced in utilizing internal audit work effectively.

The study is grounded in objective ontology and positivist epistemology, which are central to quantitative research. Objective ontology posits that there are observable and measurable realities independent of human perception, and thus, the reliance of external auditors on internal audit work can be systematically researched and quantified. The premise here is that external auditors' reliance is not subjective but can be empirically assessed based on observable data.

Positivist epistemology emphasizes that knowledge is generated from empirical data gathered through systematic observation and measurement. It also stresses the importance of using quantitative techniques to ensure that the findings are objective, replicable, and can be generalized to a broader context (Burrell & Morgan, 2019). Thus, this study uses empirical data to explore the quantitative relationships between various factors, including coordination between internal and external auditors, perceived effectiveness, and challenges faced during reliance on internal audit work.

The study employs a descriptive survey design, which is commonly used in quantitative research. This design enables the collection of quantitative data on the perceived degree of reliance, the factors influencing this reliance, and the challenges external auditors face when utilizing internal audit work. Surveys are particularly effective for gathering data from a large population, providing insights into patterns, behaviors, and attitudes toward the topic of study. A cross-sectional approach is used, meaning the data is collected at a single point in time, allowing for the identification of current relationships and trends without the need for long-term observation.

The study population includes staff members from the Ghana Audit Service (GAS), internal audit units of Municipal and District Assemblies (MMDAs), and other public institutions within the Savanna Region. These participants were selected because they directly engage with internal and external audit processes, offering valuable insights into the research objectives. Using a sample size calculation formula (Enshassi & Swait, 2015), the sample size of 127 respondents was determined from an estimated population of 190 individuals. A combination of simple random sampling and purposive sampling techniques were used to select participants. Simple random sampling ensures each member of the population has an equal chance of being selected, enhancing representativeness. Purposive sampling ensures that respondents with specific knowledge or expertise related to the audit process are included.

$$S = (Z^2 * P * (1-P)) / C^2$$

Where:

S = Sample size

Z = Z value (1.96 for a 95% confidence interval)

P = Proportion of the population (0.50)

C = Maximum error of estimation (0.05)

Applying the formula:

$$S = \frac{1.96^2 * 0.5 * (1-0.5)}{0.05^2} = 384$$

As indicated by Enshassi and Swait (2015), the correction for the finite population is described as:

$$S_{\text{new}} = \frac{S}{1 + \frac{S-1}{POP}}$$

Where: pop is the population, which was estimated to be 190.

$$S_{\text{new}} = \frac{384}{1 + \frac{384-1}{190}} = 127.$$

This results in a sample size of 127 respondents, which is deemed appropriate for the study.

Data for the study were collected using structured questionnaires, which served as the primary instrument for data gathering. The questionnaires were divided into two main sections. The first section focused on collecting demographic information, which included essential background details such as respondents' job roles, years of



experience, and professional training. The second section utilized Likert-type scales, which were specifically designed to capture respondents' perceptions on various aspects of the study. These aspects included the degree of reliance that external auditors place on internal audit work, the factors influencing this reliance such as the quality of internal audit work, coordination, and institutional factors, and the challenges faced by external auditors, including limitations in access to data, auditor independence, and difficulties with coordination. The structured questionnaire facilitated the collection of quantitative data, enabling the measurement of the relationships between the variables identified in the study.

The collected data was analyzed using a variety of statistical techniques. Descriptive statistics, including frequencies, percentages, and measures of central tendency, was used to summarize the demographic characteristics of the respondents and their responses to the Likert scale items. Correlation analysis was employed to explore the relationships between the dependent and independent variables, particularly to assess the strength of the relationship between internal audit quality and external auditors' reliance. Hypothesis testing, such as t-tests or regression analysis, was applied to test the research hypotheses and determine the significance of the relationships between the key variables. All data were coded and presented in tables to ensure clarity and ease of interpretation. The analysis was conducted using SPSS. Ethical considerations were carefully observed throughout the study. Respondents were fully informed about the purpose of the research, and their participation was entirely voluntary. The confidentiality of the data was strictly maintained, with all responses anonymized for the purpose of analysis.

This research methodology is suitable because it uses quantitative techniques to explore and measure the degree of external auditors' reliance on internal audit work, factors influencing this reliance, and the challenges faced. By employing a survey design with appropriate sampling, data collection, and analysis techniques, the study ensures that the findings are robust, reliable, and generalizable to similar settings. The combination of descriptive statistics and inferential statistics ensures a comprehensive understanding of the topic and addresses the research questions effectively.

#### IV. FINDINGS & DISCUSSION

##### 4.1 To access the extent of External Auditors' Reliance on the Internal Audit Work

The statement that required response from the respondents based on this objective is that the external auditors rely on the internal audit work if: The organizational status and relevant policies and procedures of the internal audit function support the objectivity of the internal auditors, the internal audit function is competent and the internal audit function applies systematic and discipline approach. Table 1 below contains responses by the internal auditors and external auditors in the region. Key: 1=Strongly Agree (SA), 2=Agree (A), 3=Strongly Disagree (SD), 4=Disagree (D), 5=Uncertain (U).

**Table 1**

*The level of External Auditors Reliance on the Internal audit Work*

Response	Frequency	Percentage
Strongly agreed	83	65.35
Agreed	27	21.26
Strongly disagreed	8	6.30
Disagreed	6	4.73
Uncertain	3	2.36
<b>Total</b>	<b>127</b>	<b>100</b>

**Table 2**

*T-Test Computations for Test of Hypothesis*

Response	X	Y	XY	X <sup>2</sup>	Y <sup>2</sup>
SA	5	83	415	25	6889
A	4	27	108	16	729
SD	3	8	24	9	64
D	2	6	12	4	36
U	1	3	3	1	9
Total	15	127	562	55	7727

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{\{n\sum x^2 - (\sum x)^2\}\{n\sum y^2 - (\sum y)^2\}}}, r = \frac{5(562) - (15)(127)}{\sqrt{\{5(55) - (15)^2\}\{5(7727) - (127)^2\}}}, r = 0.8531$$

$$\text{Test of significant: } T = r \sqrt{\frac{n-2}{1-(r)^2}}, T = 0.8531 \sqrt{\frac{5-2}{1-(0.8531)^2}}, T = 2.832$$



#### 4.1.1 Decision Rule

The decision rule in this analysis is based on two key statistical measures: the correlation coefficient ( $r$ ) and the calculated t-statistic ( $T$ ).

#### 4.1.2 Correlation Coefficient ( $r$ )

The correlation coefficient ( $r$ ) quantifies the strength and direction of the linear relationship between two variables. In this case, the correlation coefficient ( $r$ ) is calculated to be 0.8531, indicating a strong positive correlation between the variables under consideration. Since the correlation coefficient exceeds 0.5, which is commonly used as a threshold for strong correlation, we conclude that there is indeed a strong correlation between the extent to which external auditors rely on the work of internal auditors and the practices of the internal audit unit of the client.

#### 4.1.3 T-Statistic ( $T$ )

The t-statistic ( $T$ ) is used in hypothesis testing to determine whether the means of two groups are significantly different from each other. In this context, the calculated t-statistic ( $T$ ) is found to be 2.832. By comparing this value to the tabulated t-value (0.805), which corresponds to a specific level of significance (usually 0.05), we assess whether to accept or reject the null hypothesis ( $H_0$ ).

#### 4.1.4 Decision: Correlation Coefficient ( $r$ )

Given that the correlation coefficient ( $r$ ) exceeds 0.5, we conclude that there is a strong correlation between the extent of external auditors' reliance on the work of internal auditors and the practices of the internal audit unit of the client.

#### 4.1.5 T-Statistic ( $T$ )

Since the calculated t-statistic ( $T$ ) of 2.832 is greater than the tabulated t-value of 0.805, we reject the null hypothesis ( $H_0$ ). This suggests that there is a significant relationship between the variables being studied. Based on the statistical analysis, we conclude that there is a strong positive correlation between the extent of external auditors' reliance on the work of internal auditors and the practices of the internal audit unit of the client. Additionally, the calculated t-statistic indicates a significant relationship between these variables, leading to the rejection of the null hypothesis in favor of the alternative hypothesis.

### 4.2 To Examine the Factors Influencing the Reliance of External Auditors on Internal Auditors' Work

The statement that required response from the respondents based on this objective is that: the performance of a systems consulting role such as financial advisory role, performance advisory, compliance advisory, system security and due diligence advisory role are the factors that influence the external auditor to rely on the work of the internal auditors of the auditing client. Table 3 below contains responses by the internal auditors and external auditors in the region.

**Table 3**

*Factors Influencing the Reliance of External Auditors on Internal Auditors' Work*

Response	Frequency	Percentage
Strongly agreed	74	68.0
Agreed	34	25.8
Strongly disagreed	5	2.1
Disagreed	11	3.1
Uncertain	3	1.0
Total	127	100

**Table 4**

*T-Test Computations for Test of Hypothesis*

Response	X	Y	XY	X <sup>2</sup>	Y <sup>2</sup>
SA	5	74	370	25	5476
A	4	34	136	16	1156
SD	3	5	15	9	25
D	2	11	22	4	121
U	1	3	3	1	9
Total	15	127	546	55	6787



$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{\{n\sum x^2 - (\sum x)^2\}\{n\sum y^2 - (\sum y)^2\}}}, r = \frac{5(546) - (15)(127)}{\sqrt{\{5(55) - (15)^2\}\{5(6787) - (127)^2\}}}, r = 0.8744$$

Test of significant:  $T = r \sqrt{\frac{n-2}{1-(r)^2}}, T = 0.8744 \sqrt{\frac{5-2}{1-(0.8744)^2}}, T = 3.12$

**4.2.1 Decision Rule**

The decision rule in this analysis is based on two primary statistical measures: the correlation coefficient (r) and the calculated t-statistic (T). These measures help assess the relationship between the performance of a systems consulting role and the reliance of external auditors on the work of internal auditors.

**4.2.2 Correlation Coefficient (r):**

The correlation coefficient (r) quantifies the strength and direction of the linear relationship between two variables. In this case, the correlation coefficient (r) is calculated to be 0.8744, indicating a strong positive correlation between the performance of a systems consulting role and the reliance of external auditors on the work of internal auditors. Since the correlation coefficient exceeds 0.5, which is commonly used as a threshold for strong correlation, we conclude that there is indeed a strong positive correlation between these variables.

**4.2.3 T-Statistic (T)**

When conducting a hypothesis test, the t-statistic (T) is used to evaluate if there is a significant difference between the means of two groups. The computed t-statistic (T) in this situation is 2.832. We determine if to accept or reject the null hypothesis (H0) by comparing this value to the tabulated t-value (0.805), which usually corresponds to a particular level of significance (e.g., 0.05).

**4.2.4 Coefficient of Correlation (r)**

We conclude that there is a strong positive correlation between the performance of a systems consulting job and the extent to which external auditors rely on the work of internal auditors, given that the correlation coefficient (r) surpasses 0.5.

**4.2.5 T-Statistic (T)**

We reject the null hypothesis (H0) because the computed t-statistic (T) of 2.832 is higher than the tabulated t-value of 0.805. This implies that the extent to which external auditors rely on the work of internal auditors is correlated with the performance of a systems consulting function. We draw the conclusion that there is a significant positive association between the effectiveness of a systems consulting function and external auditors' reliance on internal auditors' work based on the statistical study. The null hypothesis is rejected since the computed t-statistic also shows a significant association between these variables.

**4.3 To Assess the Challenges Face by the External Auditors in using the Internal Auditors' Work**

The statement that required response from the respondents based on this objective is that: When the internal audit function's organizational status does not support the objectivity of the internal auditors (statement 1) (S1). The competency of the internal audit function (Statement) (S2), Risk of material misstatement (Statement 3) (S3). Amount of judgement needed in planning and performing relevant audit procedures (Statement 4) (S4). Table 4.3 below contains responses (rankings) by the respondents in the region.

**Table 5**  
*Challenges Face by the External Auditors in using the Internal Auditors' Work*

STATEMENT	RANK				SUM	MEAN	SUM Sq.
	SA	A	D	SD			
Statement 1	34	34	44	24	136	34.00	81
Statement 2	31	33	26	35	125	31.25	4
Statement 3	33	28	31	30	122	30.50	25
Statement 4	29	32	26	38	125	31.25	4
Sum					508	127	144

## Statement

When the internal audit function's organizational status does not support the objectivity of the internal auditors  
(Statement 1)

The competency of the internal audit function (Statement 2)

Risk of material misstatement (Statement 3)

Amount of judgement needed in planning and performing relevant audit procedures (Statement 4)

Field Survey, 2024

$$W = \frac{12S}{p^2(n^2 - n) - pT}, W = \frac{12(114)}{4^2(4^3 - 4) - 4 \times 0}, W = 1.425$$

*Test of Significance for W*

In this test, we aim to determine whether there is significant agreement among respondents regarding the rankings of the challenges. We establish two hypotheses to guide our analysis: **Null**

### 4.4 Hypothesis:

There is no agreement among respondents regarding the rankings of the challenges.

There is agreement among respondents regarding the rankings of the challenges.

To assess the significance of the agreement, we employ Milton Friedman's Chi-Squared Test, which is calculated using the formula: Chi-Square =  $p \times (n - 1) \times w$ , where:

p is the number of categories or rankings,

n is the number of respondents, and

w is the average value of the ranks.

Given the provided data, we have:

Number of categories (p): 4

Number of respondents (n): 4

Average value of ranks (w): 1.425

Substituting these values into the formula, we calculate the Chi-Square statistic as follows: Chi-Square =  $4 * (4 - 1) * 1.425 = 17.100$

Next, we determine the critical value for Chi-Square at a significance level of 0.05 with 7 degrees of freedom (p-1). Using a Chi-Square distribution table or software, we find the critical value to be Chi-Square (0.05, 7) = 14.067.

*Decision:*

Comparing the calculated Chi-Square value (17.100) to the critical value (14.067), we observe that the calculated value exceeds the critical value. As a result, we reject the null hypothesis at the 0.05 significance level. Therefore, based on the statistical analysis, we conclude that there is significant agreement among respondents regarding the rankings of the challenges. The rejection of the null hypothesis indicates that the respondents' rankings are not likely due to chance, suggesting a consensus or pattern in their responses.

### 4.5 Discussion

The purpose of this study was to assess the degree to which external auditors in Ghana rely on internal audit work and to identify the key factors influencing this reliance. Additionally, the study aimed to explore challenges associated with such reliance.

#### 4.5.1 Degree of Reliance on Internal Audit Work

The results reveal a substantial positive relationship ( $r = 0.8531$ ) between the identified factors and external auditors' reliance on internal audit work. This strong correlation underscores the importance of these factors in fostering collaboration between the two audit functions. The acceptance of the alternative hypothesis (H1), supported by the computed T-statistic ( $T = 2.832$ ), validates this relationship. From the perspective of Agency Theory (Jensen & Meckling, 1976), the reliance aligns with the theory's assertion that external auditors act as agents of stakeholders by providing assurance over financial reporting. By leveraging internal audit work, external auditors reduce the risk of information asymmetry and opportunistic behavior by management. This is consistent with prior empirical findings, such as those by Sawan and Alzeban (2013), who emphasized the reliance of external auditors on high-quality internal audit functions to enhance audit outcomes.

#### 4.5.2 Factors Influencing External Auditors' Reliance

The study identifies internal auditors' performance in a systems consulting capacity as a significant determinant of reliance. External auditors value the expertise and insights provided by internal auditors in areas such as financial advice, compliance, system security, and due diligence. This finding supports the Resource Dependence Theory (Pfeffer & Salancik, 1978), which emphasizes the critical role of resource interdependence between internal and external auditors. While this result aligns with the literature (e.g., Evans & Schwartz, 2014; Lento & Yeung, 2023), it highlights

a shift in the role of internal auditors from traditional assurance providers to strategic advisors. This evolving role underscores the growing importance of leveraging internal auditors' specialized knowledge to optimize external audit processes. However, the findings also diverge slightly from earlier research, which focused primarily on internal audit quality and independence as the main determinants of reliance. This divergence suggests that the unique context of Ghana's auditing environment may shape reliance dynamics differently.

#### **4.5.3 Challenges in Using Internal Audit Work**

The study also explored the challenges external auditors face when relying on internal audit work. The evaluation using Kendall's coefficient of concordance revealed a significant level of agreement among respondents regarding these challenges. Interestingly, organizational positioning and its impact on internal auditors' objectivity were not the primary concerns. Instead, other challenges, such as inconsistencies in documentation and variations in internal audit competence, were more pronounced. These findings echo concerns raised by Abbass and Aleqab (2013) and Suwaidan and Qasim (2010) about the potential barriers to effective reliance on internal audits. The emphasis on documentation quality and auditor expertise highlights the need for internal audit functions to adhere to professional standards and maintain consistent performance. The reduced emphasis on objectivity-related concerns suggests that organizations in Ghana may have implemented governance structures that mitigate this issue, potentially reflecting advancements in internal audit practices. The results reinforce the notion that coordination between internal and external auditors can enhance audit efficiency, as suggested by Gwilliam and Alzeban (2014). Improved reliance leads to optimized resource utilization and reduced redundancy. However, the findings also underscore the challenges of ensuring that internal audit work consistently meets the standards required for external audit purposes. Empirical studies, such as those by Christensen et al. (2021), highlight the benefits of such collaboration, but the context-specific challenges identified in this study point to the need for tailored strategies to enhance coordination in Ghana's auditing environment.

## **V. CONCLUSION & RECOMMENDATIONS**

### **5.1 Conclusion**

External auditors play a critical role in determining the extent to which internal audit work is integrated into audit procedures. This study underscores the significant correlation between specific factors—particularly the performance of internal auditors in systems consulting roles—and the reliance placed on internal audit work by external auditors. These findings highlight the evolving role of internal auditors, emphasizing their contributions beyond traditional assurance functions to include strategic advisory roles. The study also reinforces the importance of competence, training, and adherence to professional standards in fostering effective collaboration between internal and external auditors.

### **5.2 Recommendations**

Based on the findings of this study, the following recommendations are proposed:

The Ghana Audit Service should prioritize the training and skill development of auditors, particularly in the areas of computerized and electronic information systems. Providing training in emerging technologies will strengthen auditors' capacity to effectively evaluate and leverage internal audit work.

Encouraging auditors to obtain professional certifications such as the Certified Information Systems Auditor (CISA) and Certified Information Security Manager (CISSM) will enhance their proficiency in modern auditing practices. These certifications will enable auditors to better assess internal audit contributions and adapt to technological advancements.

Future research should explore the impact of modern information systems on auditing procedures and how internal audit functions contribute to technological advancements in the field. Insights from such studies will guide the integration of technology into auditing practices and enhance the value of internal audit work.

Policymakers and auditors should investigate how emerging technologies influence the audit process and the ability of internal audit functions to adapt. This will ensure that legislative frameworks and audit practices remain aligned with technological progress, fostering a more resilient and effective auditing environment.

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