



The moderating role of organisational culture in the relationship between accounting information system and internal audit quality: Evidence from Guyana's manufacturing sector

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Abstract

The study examines the influence of Accounting Information Systems (AIS) and Organizational Culture (OC) on Internal Audit Quality (IAQ), with a focus on the mediating role of organizational culture. Grounded in Information Theory, Resource-Based View (RBV), and Contingency Theory, the research adopts a quantitative approach using structured questionnaires administered to internal auditors and finance professionals across selected firms. Data were analyzed using Statistical Package for Social Science v 23. The findings reveal that AIS has a strong and statistically significant positive effect on IAQ ($\beta = 0.780, p < 0.001$), emphasizing the critical role of high-quality financial systems in enhancing audit functions. Additionally, organizational culture demonstrated a significant positive impact on IAQ, supporting RBV's assertion that culture is a strategic intangible asset that enhances internal control mechanisms. Importantly, the study found that organizational culture mediates the relationship between AIS and IAQ, underscoring the contingent nature of technological effectiveness within specific organizational contexts. These results provide theoretical and practical implications for audit governance and the design of accounting systems.

Keywords: Accounting information systems, internal audit quality, organizational culture, mediation

Introduction

In a world characterized by uncertain business environment, internal and external crises as well as disruptions are inevitable. The coronavirus is a classic example. The world economy predicted a loss of \$1 trillion in 2020 due to the economic uncertainty brought on by the coronavirus pandemic (Khan, Khan & Shafiq, 2021)^[21]. These crises are now among the key predictors of the volatility that affects performance of organizations in almost every sector of an economy (Ogbari, 2024). In Guyana, the manufacturing sector plays indispensable role in national development by driving economic growth through job creation, increased productivity, technological innovation, export generation, and by fostering linkages with other sectors of the economy, ultimately contributing to a country's overall prosperity and competitiveness on the global stage. Similar to other sectors of other parts of the world, the Guyana manufacturing sector is not immune to crises. According to Dwirandra & Astika (2020)^[11], organizational operations including those in the manufacturing sector are always affected for a variety of financial, environmental, strategic, or political reasons.

Therefore, organizations are cautioned to be mindful of these crises and adopt pragmatic strategy to handle them effectively to avoid winding up. Extant literature has shown that Accounting Information System (AIS) plays indispensable role during such disruptions (Al-Matari, Amiruddin, Aziz & Al-Sharafi, 2022)^[3]. Qatawneh (2022)^[29] is of the view that AIS is a crucial piece of the organization's infrastructure because of its imperative data management role, storage, and information dissemination. This is buttressed by Al-Okaily, Al-Okaily, Shiyab & Masadah, (2020) who posited that for organizations to achieve competitive advantage in an era of rapidly evolving technologies, heightened public consciousness, and more exacting standards for both customers and company owners, there is the need for managers to have easy access to accounting information system. In consonance with this,

Gofwan (2020)^[12] maintained that accounting information system can aid organizations in monitor and control financial abnormalities and bankruptcies risk management detection, among others. Defined as "a system that collects, stores, and processes financial data (Richardson, Chang & Smith, 2020)^[32], dominant literature (Binh, Tran & Vu, 2022)^[6] argues that accounting information system (AIS) is one of the supporting information systems used in administrative activities including planning, organizing, and deciding how to allocate scarce resources.

However, Islam (2023)^[17] posits that internal auditing has a significant role to play so far as the upkeep of the integrity and reliability of information generated by AIS is concerned. Islam Tamimi (2021)^[18] mentioned that internal auditing's guiding principle necessitates the use of management engagement processes to address out-of-the-ordinary circumstances. The efficiency of the internal control system is assessed by these actions. If auditing is subpar, then an organization's loss might lead to severe consequences such as corporate collapse, corruption, among others.

Napitupulu (2023)^[27] argues that the Accounting information system AIS is crucial to the success of internal auditors because it allows for more informed business decisions and better management. According to Napitupulu (2023)^[27], shareholders and stakeholders greatly value the information provided by AIS when making investment decisions. AIS's financial and accounting data are used by financial managers to assess the company's past performance and set goals for the future. In the midst of this, Setyaningsih, Mulyani, Akbar & Farida (2021)^[34] intimated that organizations should build strong culture to enhance a better outcome of Accounting Information System (AIS). Prior studies corroborate this. For instance, the study of Qatawneh (2023)^[30] found that organizational culture has a statistically positive influence on reaching better AIS outcomes. Also, the study results of Al-Gasawneh & Al-

Adamat (2020) ^[2] found that organization culture mediates the relationship between Accounting information system and internal audit quality. Equally, Jarah & Almatarneh (2021) ^[20] found significance effect of accounting information systems on the organizational culture. Organisational culture refers to “a pattern of shared basic assumptions that is learned by a group as it solved its problems of external adaptation and internal integration that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems (Iskamto, 2023) ^[19]. According to Martinez, Kilag & Macario (2023) ^[1], organizational culture has a significant impact on individual decision-making and the success of the organization's career strategy. This in turn has an impact on management's ability to achieve the desired goals. This study, therefore, aims to investigate the moderation role of organisational culture on the relationship between Accounting Information System and Internal Audit Quality with evidence from Guyana's manufacturing sector. The study's findings contribute to the body of empirical research on Guyana's AIS and IAQ. Additionally, it offers insightful data-driven evidence that is useful for manufacturing companies' strategic operationalization and policymaking. A key significance of this study is that it is the first to be conducted in Guyana and hence gives a sufficient basis for future studies geared towards understanding the same or similar phenomenon in other sectors.

Statement of Hypothesis

The following hypotheses were formulated

H1: accounting information systems will significantly impact internal audit quality.

H2: organizational culture will positively impact internal audit quality

H3: organizational culture will mediate AIS and IAQ relationship

Literature Review

Theoretical Underpin

The Information Theory, Resource-Based View (RBV) and the Contingency Theory

The Information Theory

Information Theory, originally proposed by Shannon (1948) ^[35], emphasizes the efficient transmission of information by maximizing signal clarity while minimizing noise and distortion. In organizational contexts, this theory has been applied to understand how the quality, timeliness, completeness, and accuracy of information impact decision-making processes. When applied to Accounting Information Systems (AIS), Information Theory suggests that a high-quality AIS improves the signal-to-noise ratio, delivering clear, relevant, and reliable data to users, including internal auditors. Enhanced information flow enables auditors to detect irregularities, assess risk, and conduct more effective audits (Lenz & Hahn, 2019) ^[22]

Resource-Based View (RBV)

The Resource-Based View (RBV), introduced by Barney (1991), posits that organizations gain sustained competitive advantage through the possession and effective deployment of valuable, rare, inimitable, and non-substitutable (VRIN)

resources. Organizational culture is recognized within RBV as a strategic intangible resource that enhances internal capabilities. A strong culture that promotes ethics, openness, and accountability fosters trust and cooperation, which in turn supports internal audit functions (Soh & Martinov-Bennie, 2019) ^[36].

Contingency Theory

Contingency Theory argues that organizational effectiveness is not driven by a one-size-fits-all approach but depends on how internal systems fit specific contextual factors such as size, environment, structure, and culture (Donaldson, 2001) ^[10]. In the context of Accounting Information Systems (AIS) and Internal Audit Quality (IAQ), the effectiveness of AIS is contingent upon the prevailing organizational culture. When culture supports transparency, ethics, and accountability, the information generated by AIS becomes more actionable and reliable for auditors (Alsharari, 2021). A culture aligned with the values of the audit function enhances the utility of AIS, facilitating better communication and collaboration between departments

The Concept of Accounting Information System

It is to be noted that, no specific definition is assigned to accounting information. Several definitions have been given from one literature to another. The logical intersection of accounting and information system (IS) makes up an accounting information system. Accounting information system (AIS) is deemed to have a countless role in daily operations in corporate organizations. It is regarded as vital information systems used in executing the key functions of for efficient utilization of the available resources (Sagala, 2020) ^[33]. According to Hama & Qurochman (2022) ^[15] accounting information system (AIS) identify, quantify, gather, analyze, prepare and report management accounting information about a particular entity to a particular group. The accounting information system represents all eligible individuals and precise equipment used to gather financial activity data in order to acquire information that serves the needs of decision-makers over a specific period of time (Maharani & Damayanthi, 2020)

Organizational Culture

The notion of culture in a wide and common sense may be described as a behavioral trend, conceptions, organizations (groups), and all the mindset that identifies some shared principles that are likely to endure the members in the groups' changes (Imran, Ismail, Arshad Zeb & Zahid, 2022) ^[16]. Regarding the organization, culture will offer a new perspective on how the organizational ethics is a reflection of the assumptions held, and largely accepted by the group and will impact how these groups think, feel, and react to the enhanced surroundings (Arabeche, Soudani, Brahmi, Aldieri, Vinci & Abdelli, 2022). According to Arabeche, Soudani, Brahmi, Aldieri, Vinci & Abdelli (2022), organizational culture is defined as shared knowledge of core assumptions, principles, and beliefs, as well as artifacts and inventions that can direct organizational behavior.

Internal Audit Quality

Internal audit quality refers to an essential component of effective internal controls that gives reasonable confidence about the achievement of operational, reporting, and compliance goals (Nerantzidis, Pazarskis, Drogalas &

Galanis, 2022) [26]. According to Nerantzidis, Pazarskis, Drogalas & Galanis (2022) [26] improved, company outcomes are one potential benefit of a quality internal audit. Because of this, their chances of achieving sustainable improvements in performance and expansion inside their company are enhanced. Therefore, it is postulated that internal audit quality is a factor of accounting information transparency, financial efficiency, and organizational performance. Internal audits that are of higher quality tend to uncover and investigate fraud more thoroughly (Christ, Eulerich, Krane & Wood, 2021).

Accounting Information Systems and Internal Audit Quality

The applications of Accounting Information Systems can be observed in the designing, implementation, and control maintenance of business processes of an organization (Ali & Oudat, 2021) [4]. According to Ali & Oudat (2021) [4], Accounting Information Systems contributes to data collection, processing and storage, especially data of financial statements. Tambunan, Erlina & Amalia (2022) stated that accounting information system eases support for internal control and business management implementation. The authors shared that in utilizing an accounting information system, data are gathered, recorded, stored, and managed to generate information for decision-making purposes.

In the context of the relationship between AIS and internal audit quality, previous studies found that Accounting Information Systems (AIS) has a significant impact on internal audit quality (Alayli, 2023; Alawaqleh, 2021). Also, the study result of Imaliki, Rapani, Khalid & Sahaib (2019) indicated that accounting information system characteristics had significant effects on internal audit quality. The study further posits that AIS has a profound impact on the efficacy of internal audit and internal control within organization. Also, literature reports that AIS plays a crucial role in ensuring the accuracy, transparency, and timeliness of financial reporting (Diana, Sudarmiati & Hermawan, 2023) [9] which is critical for internal audits quality. According to Sihombing, Nasirwan & Situmeang (2020), a high internal audit quality can enhance management oversight responsibilities which can lead to improve organizational governance and performance. Inferring from the literature, the study hypothesized that:

H1: accounting information systems will significantly impact internal audit quality

Organizational Culture and Internal Audit Quality

Organizational culture has long been in existence within working activities, and it functions as a motivating tool for achieving better work quality among staff members. In this regard, a strong culture can improve the organization’s effectiveness. Literature on culture and audit process believes that an organization’s culture affects its audit environment, which eventually influences the audit process (Abdelahi & Arumugam, 2020) [1]. Previous studies showed that organizational culture has a substantial effect on the quality of internal audit in the sense of the relationship between organizational culture and the internal audit quality (Abdelahi & Arumugam, 2020) [1]. Equally, the study of Anggoro (2024) [5] reported that organizational culture positively impact audit quality and auditors' performance. Also, prior studies Hung (2023) revealed that organizational culture values such as trust, transparency, and accountability impact auditors' quality, which according to Pham, Pham &

Truong (2023) [28] can enhance clients, regulators, and other stakeholders’ confidence. As a result, the culture has a significant influence on internal auditing quality within organizations. The hypothesis below is therefore proposed

H2: Organizational culture will positively impact internal audit quality

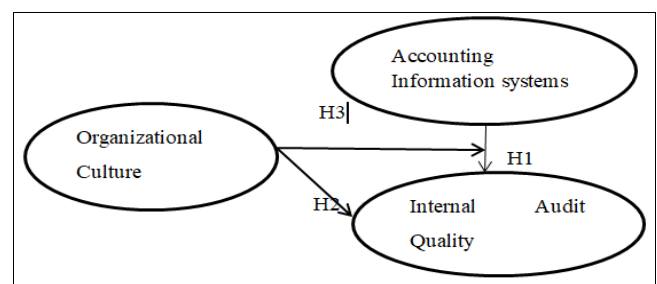
Organizational Culture Mediation between AIS and IAQ

The organizational culture element is the foundation for the best performing accounting information system (Ha, 2020) to enhance internal audit quality. Previous studies showed significant relationships between organizational culture and AIS (Ha, 2020) and, also organizational culture mediation between AIS and internal audit quality (Alawaqleh, 2021). As a result, the culture of the organization mediates AIS and internal audit quality. In the study of Alawaqleh (2021), organizational culture was found to partially mediate accounting information system and internal audit quality relationship. The academic literature defines organizational culture as a pattern of shared basic assumptions, beliefs, and expectations learned by a group through its experience, which guides its members’ interpretations and actions and is taught to new members as appropriate behavior within an organization (Guerra, Martínez, Munduate & Medina, 2020) [13]. The authors believe that the organizational culture is one of the important foundations for the development of the outputs of AIS to support internal audit quality. Thus, perceptions of organizational culture influence accounting information systems and attitudes of auditors (Qataweh, 2023) [30] and, ultimately, audit quality. In the study of Binh, Tran & Vu (2022) [6] organizational culture was found as an essential factor in enhancing the quality of accounting information systems of Vietnamese firms to enhance audit quality. Implementing an innovative corporate culture will improve system quality and information quality of the accounting information systems that help accounting information more sufficient for making decisions for the quality of internal audit. Inferring from the literature, the study hypothesized as follows:

H3: organizational culture will mediate AIS and IAQ relationship

Conceptual Framework

The study sought to test the relationship between Accounting Information System and Internal Quality Audit, organizational culture and Internal Quality Audit and the mediation role of organizational culture in the relationship between Accounting Information System and Internal Quality Audit. As a result, a construct is formulated as depicted in figure 1.



Source: Author’s Construct, 2025

Fig 1: Conceptual Framework

Empirical Review

Qatawneh (2023) ^[30] explored the role of organizational culture in supporting better AIS outcomes from perspective of financial and accounting managers within SMEs in Jordan during the fiscal year 2021–2022. Quantitative approach was adopted and (318) questionnaire was distributed on financial and accounting managers from different SMEs in the Jordanian capital Amman, during the fiscal year 2021/2022. SPSS was employed so as to reach numerical results that can lead to explaining the phenomenon under study, and it was indicated that the main hypothesis was accepted “Organizational culture has a statistically positive influence on reaching better AIS outcomes within SMEs in Amman”.

In a mixed-methods study by Daryaei & Shahbazi (2024) ^[8] entitled: “Designing a Model of Audit Quality Based on Various Organizational Culture Factors, open, semi-structured interviews were conducted with 17 auditing experts and academics. In the quantitative phase, the sample consisted of 106 managers and employees from audit firms, providing services to companies listed on the Tehran Stock Exchange. Following the grounded theory, qualitative data obtained from the interviews were analyzed through open, axial, and selective coding in the MAXQDA. Finally, an audit quality model was developed based on the components of organizational culture with 15 axial codes and 85 themes. This model was fitted using structural equation modeling in SmartPLS. According to the results of the study and the proposed model, the components of organizational culture affect audit quality.

Methodology

The study employed the descriptive survey design because it allows for the gathering of opinions, beliefs, or perceptions about a current issue from a large group of people (Lodico, Spaulding & Voegtler, 2006) ^[23]. The research approach adopted was quantitative. The quantitative research was adopted in this study because hypotheses was tested on the relationship between accounting information systems and internal audit quality, organizational culture and internal audit quality and also, to test the mediation role of organizational culture in the relationship between accounting information systems and internal audit quality. Additionally, the quantitative research approach supports the use of the descriptive designs which was used in this study.

The targeted population includes all employees in the manufacturing sector in Georgetown. The Stratified random sampling was adopted as the most suitable approach due to its ability to ensure a proportional representation of different subgroups within the population. The strategy of Cochran (1963) ^[7] was adopted to calculate the study’s sample size of 384 respondents. The primary data was collected from the respondents by the use of questionnaire administration. Also, the secondary data was gathered from academic journals, test books and periodicals. Instrument for data collection was structured questionnaire. Structured questionnaire was used because it lowers the cognitive load of information on the respondents.

Approximately one month was devoted to solicit data from the participants. The study’s questionnaire was administered in person to the respondents in the morning between 9am to 11am. Each respondent spent about 15 minutes to complete the questionnaire

To enhance the validity of the research instrument, the researcher sought input from organizational culture experts as well as experts in the field of Accounting Information System and Internal Auditors. Additionally, extensive review of theoretical and empirical literature related to the research variables was conducted to ensure content and construct validity. Equally, the Cronbach’s alpha coefficient analysis will be carried out to ascertain the study’s reliability.

Data analysis was carried out with the use of Statistical Package for Social Science (SPSS) version 23. Prior to processing, rigorous proofreading of returned questionnaires ensured accuracy and consistency. Through careful coding, data was categorized into distinct sets, facilitating comprehensive analysis. The findings were then be concisely presented through tables and charts, enabling easy comprehension and comparison, thus contributing to a comprehensive understanding of the research outcomes.

Participants in the study were fully informed of the nature and the purpose of the research and were assured of their rights to withdraw from answering any questions they found uncomfortable with, without repercussions.

Results

Descriptive Characteristics of Respondents

This section provides a summary of the preliminary descriptive analysis of respondent’s socio-demographic characteristics in terms of gender, age, and educational level, length of service as well as job position occupied. These characteristics provide a general overview of the distribution among respondents sampled in the manufacturing sector of Georgetown.

Gender of Respondents: To ensure gender equity, both male and female staff in the manufacturing sector of Georgetown was involved in this study. From the dataset, the majority of respondents (295 out of 384) are male, accounting for 76.8% of the sample. This clearly indicates that men make up over three-quarters of the workforce or participants surveyed in the manufacturing sector. These findings are consistent with national and global reports that highlight the underrepresentation of women in the manufacturing sector. The result aligns with the earlier reported statistic from the Global Gender Gap Report, which showed similar proportions (approximately 77.6% male and 22.3% female). This disparity suggests structural or social barriers may be limiting women’s participation in industrial roles.

Age of Respondents: The dataset showed that 130 respondents fall within this bracket, representing 33.8% of the workforce surveyed. This indicates a strong presence of young professionals, suggesting that the manufacturing sector in Guyana offers entry-level opportunities or attracts younger talent. The largest age group, with 155 respondents (40.4%), falls in this range. This age bracket likely includes mid-career professionals who are established in their roles, often taking on supervisory, technical, or managerial positions. Their dominance signals that this is the prime working demographic in the sector. Comprising 84 respondents (21.9%), this group is still significant but less represented. It may reflect long-term employees with specialized skills or leadership roles, though the reduced proportion could suggest attrition or career shifts away from

manufacturing at this stage. Only 15 respondents (3.9%) fall into this older age bracket. This suggests that relatively few older individuals remain active in the manufacturing sector, possibly due to physical job demands or early retirement.

Level of Education: The statistics shows the dominance of secondary education 57.3% of sample, indicating the most common educational qualification among workers in the sector. This suggests that a high school education is sufficient for many roles in Guyana's manufacturing industry. 98 respondents (25.5%) have received technical or vocational training, representing a substantial segment of the workforce. This reflects the sector's demand for skilled, hands-on labor, such as machine operators, electricians, welders, and technicians. 12.3% (47 respondents) have only completed primary education. This could indicate the presence of unskilled or semi-skilled labor, possibly in entry-level or manual roles that require minimal formal education. Only 4.9% (19 respondents) have a university-level education. This shows that higher academic qualifications are rare, likely because most manufacturing jobs do not require a university degree, or such graduates may be absorbed by other sectors (like oil and gas, finance, or public administration).

Work Experience: The dataset shows that the majority of workers (36.5%) in Guyana's manufacturing sector have between 7 and 9 years of experience, indicating a workforce that is predominantly mid-career and well-acquainted with the industry's operations. Also, a significant portion (28.6%) has 10–12 years of experience, further reinforcing the view that the sector is staffed by experienced professionals. Additionally, 15.6% have 13 years or more of experience, highlighting a notable presence of senior and long-serving employees who may occupy supervisory or technical roles requiring deeper expertise. On the other hand, only 7.8% of respondents have 1–3 years of experience, and 11.5% have 4–6 years, suggesting that new entrants or early-career workers are in the minority. The dataset demonstrates that the manufacturing workforce in Guyana is largely experienced, with over 80% of respondents having more than six years of work experience. This reflects a stable and mature labor force that likely contributes to institutional knowledge retention, higher productivity, and process familiarity.

Job Position Occupied: The data provides insight into the distribution of job positions among respondents in the Guyana manufacturing sector. A significant portion of the workforce in the manufacturing sector is employed in senior accounting roles (41.7%). This suggests a strong emphasis on financial management and accounting functions within manufacturing firms, possibly due to the need for cost control, budgeting, and financial reporting. A substantial number of respondents (33.8%) are departmental heads, indicating a diverse set of managerial and operational leadership roles. The dataset points to a relatively well-structured organizational hierarchy with clearly defined departments. Also, a notable portion of the respondents (19.3%) come from senior non-managerial positions, showing that the views of experienced personnel at operational levels are included. This group likely includes technical experts, supervisors, and other skilled professionals. Although fewer in number (5.2%), finance managers still represent a critical strategic role in managing

the overall financial health of manufacturing entities. Their smaller percentage may reflect centralized financial decision-making structures. The high proportion of accounting-related roles may indicate increased regulatory compliance, demand for financial transparency, or preparation for international trade and investment. The presence of many departmental heads suggests a complex organizational structure, possibly due to the varied nature of manufacturing operations (e.g., production, quality control, logistics).

Reliability Statistics

The study's internal consistency of the responses received from respondents was ascertained. Internal consistency, a measure used to assess the extent to which multiple items within a test are consistent in the responses provided by the participants. It shows how reliably respondents answer items that are intended to assess the same general construct." "Internal consistency refers to the extent to which all the items in a test measure the same concept or construct, and thus it is connected to the interrelatedness of the items within the instrument. A high internal consistency indicates that the items are measuring the same underlying trait and that respondents are answering in a consistent manner. The Cronbach's Alpha is widely regarded as a reliable and appropriate statistic for measuring internal consistency of a scale or instrument in research. It assesses how closely related a set of items are as a group. Also, a scale with coefficient alpha values $\alpha \geq 0.9$ = Excellent, $0.8 \leq \alpha < 0.9$ = Good, $0.7 \leq \alpha < 0.8$ = Acceptable, $0.6 \leq \alpha < 0.7$ = Questionable, $0.5 \leq \alpha < 0.6$ = Poor and $\alpha < 0.5$ = Unacceptable. Table 1 presents the results.

Table 1: Reliability Test

Cronbach's Alpha	Number of Items
$\alpha \geq 0.9$	4

Source: Researcher's field work, 2025

The study's value shows a very strong positive correlation between the combined independent variables (accounting information systems and organizational culture) and the dependent variable (internal audit quality). It suggests that as the effectiveness of accounting systems and the quality of organizational culture improve, so does the quality of internal audits. R² (Coefficient of Determination) is 0.808. This means that 80.8% of the variance in internal audit quality can be explained by the combined influence of accounting information systems and organizational culture. This is a high level of explanatory power, indicating a strong and effective model. Adjusted R² = 0.784 corrects R² for the number of predictors in the model. A value of 78.4% shows that, even after adjusting for the number of variables, the model still explains a substantial portion of the variance in internal audit quality. It confirms the robustness and generalizability of the model. The Standard Error of the Estimate which is 0.170, measures the average distance between the actual values and the values predicted by the model. A low standard error (0.170) indicates that the model's predictions are quite accurate, and the residual errors are minimal. Table 2: presents the Model Summary.

Table 2: Model Summary

Model	R Square	R Square	Adjusted R2	Std. Error of Estimate
1	.864	.808	.784	.170

Source: Field data, 2025

Predictors: (Constant), accounting information systems, organizational culture
 (Independent variables), internal audit quality (dependent variable)
Dependent variable: internal audit quality

The study’s statistics shows a total sum square of 30.412. This represents the total variance in the dependent variable (internal audit quality) that needs to be explained. The regression Sum of Squares is 16.160 showing the portion of the total variation that is explained by the two independent variables (accounting information systems and organizational culture). This shows that a substantial part of the variance is explained by the model. Also, the residual Sum of Squares 14.252 represents the unexplained variance or error remaining in the model after fitting. The study’s F-statistic is 18.404. The F-value compares the variance explained by the model to the unexplained variance. A high value like 18.404 indicates the model is highly significant. The significance (p-value) 0.000 is less than 0.05, indicating that the overall model is statistically significant. It confirms that accounting information systems and organizational culture significantly predict internal audit quality. Hence, the ANOVA results demonstrate that the regression model is statistically significant ($F = 18.404, p < 0.001$). This means that the combination of accounting information systems and organizational culture significantly predicts internal audit quality. With more than half of the total variance explained (16.160 out of 30.412), the model appears to be both useful and reliable. Table 3 presents the results

Table 3: ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	16.160	2	6.150	18.404	.000b
Residual	14.252	84	.168		
Total	30.412	86			

Source: Field data, 2025

Predictors: (Constant), accounting information systems, organizational culture, satisfaction (independent variables),

Table 4: Coefficients from the Regression Output

Model	Unstandardized Coefficients (B)	Std. Error	Beta	t	Sig. (p-value)
(Constant)	.824	.562	-	3.068	.001
Accounting Information Systems	.780	.422	.780	3.102	0.000
Organizational Culture	.724	.482	.764	2.665	.001
Organizational Culture mediating Internal Audit Quality and Accounting Information Systems	.762	.504	.808	1.264	.000

Source: Field data, 2025

Predictors: (Constant), accounting information systems, organizational culture, satisfaction (independent variables), internal audit quality (dependent variable)
Dependent variable: internal audit quality

Discussions of Findings

H1: Accounting Information Systems will significantly impact Internal Audit Quality

The study found a high standardized beta (0.780) showing AIS is a strong predictor of audit quality. Findings of the study are consistent with the Information theory.

internal audit quality (dependent variable)
Dependent variable: internal audit quality

H1: Accounting Information Systems will significantly impact Internal Audit Quality

From the study’s regression analysis, it is evident that $B = 0.780, \text{Beta} = 0.780, t = 3.102, p = 0.000$ which is statistically significant ($p < 0.05$). This implies that a unit increase in AIS leads to a 0.780 unit increase in internal audit quality, controlling for other variables. The high standardized beta (0.780) shows AIS is a strong predictor of audit quality. As a result, the study’s null hypothesis **H1: accounting information systems will significantly impact internal audit quality** was accepted as we reject the alternative hypothesis

H2: Organizational Culture will positively impact Internal Audit Quality

The study’s regression results shows that organizational culture (OC) $B = 0.724, \text{Beta} = 0.764, t = 2.665, p = 0.00$, is statistically significant ($p < 0.05$) which suggests that a stronger organizational culture significantly enhances internal audit quality. With a strong Beta (0.764) it implies that organizational culture influences Internal Audit Quality (IAQ). Hence, the study’s null hypothesis: **H2: organizational culture will positively impact internal audit quality** was accepted as we reject the alternative hypothesis

H3: Organizational Culture will mediate AIS and IAQ relationship

On organizational culture mediation between AIS and IAQ, $B = 0.762, \text{Beta} = 0.808, t = 1.264, p = 0.000$. The statistics suggests that organizational culture acts as a mediator between accounting systems and internal audit quality. This is statistically significant, with the highest beta (0.808), showing that this mediating effect has a very strong influence on Accounting Information System (AIS) and Internal Audit quality (IAQ). The implication is that the impact of AIS on audit quality is amplified when organizational culture is strong. Table 4 presents the results.

Accounting Information Systems collects, processes, stores and communicate financial data.

According to Information Theory, a high-quality AIS increases information capacity and reduces noise. This ensures auditors receive relevant, reliable, timely, and complete information. Given that internal auditors rely heavily on information from AIS to identify and assess risks, plan and conduct audits and report findings, if AIS improves signal-to-noise ratio, auditors can make better judgments, detect irregularities and fraud more accurately, increase audit effectiveness and efficiency (Lenz & Hahn, 2019)^[22].

Equally, the study findings are in sync with the contingency theory. According to Contingency Theory, the relationship between AIS and IAQ depends on several contextual factors, such as organizational complexity and size, type of industry and regulatory requirements, risk profile and operational complexity and technological sophistication. Organizations facing higher complexity or risk need more sophisticated AIS to provide detailed, real-time and relevant information as internal audit can then tailor its scope and procedures effectively, leading to higher quality (Alsharari, 2021).

Empirical studies have shown that as the quality and capacity of accounting information systems reduces information distortion and increasing usable information, internal audit quality supporting auditors' risk assessments and decision-making is enhanced (Dabor, Ismail & Ismail, 2021; Alzoubi, 2020). Al-Hiyari, Al-Momani and AlKhatib (2022) study in manufacturing firms found that integrated AIS improved internal audit quality by providing complete and real-time data, aligning with the idea that better information systems improve the "signal" auditors rely on. Alayli (2022) studied Lebanese SMEs and found AIS significantly improve audit quality by enhancing the accuracy and reliability of financial reports. Jordanian SMEs study, Alzoubi (2021) found that AIS significantly enhances internal audit quality with organizational culture as a partial mediator mirroring how structured AIS frameworks elevate control effectiveness. A broader study covering 690 internal auditors found system reliability (AIS quality) significantly boosts audit efficiency; audit committee support further amplifies this effect.

H2: Organizational Culture will positively impact Internal Audit Quality

The findings of the study demonstrate a significant influence of organizational culture on internal audit quality. The study finding is consistent with the Resource-Based View (RBV), Theory originally developed by Barney (1991). The theory argues organizations gain and sustain competitive advantage by possessing and deploying valuable, rare, inimitable, and non-substitutable (VRIN) resources. These resources can be tangible (e.g., technology) or intangible (e.g., culture, knowledge, reputation). In this view, organizational culture is seen as a critical strategic intangible resource that can enhance internal processes, including audit functions. A valuable organizational culture that promotes ethical behavior, collaboration and transparency improves how internal auditors access information, coordinate with departments, and perform their work (Soh & Martinov-Bennie, 2019) ^[36]. Equally, when organizational culture is rare and inimitable, thus unique to the organization, it creates audit practices that competitors cannot easily copy (Ndirangu & Owino, 2023). Organizational culture as a resource strengthens auditors' independence, professional skepticism, and quality of judgment. Thus, RBV predicts that OC, as a strategic resource, directly enhances IAQ by improving audit procedures, objectivity, and risk assessments (Haron, Ismail & Abdul Rahman, 2022).

Empirically, the study of Mahzan and Hassan (2021) ^[24] found that Organizational culture as a strategic resource facilitates better Internal Audit Quality (IAQ). Consistently, Alzeban (2020) found that a strong ethical culture improves audit quality by enhancing auditor's independence and

communication Culture as valuable & unique resource improves audit processes. When an organization has a strong ethical and transparent culture, it aligns agents' behavior with principals' interests, which reduces the need for excessive costly monitoring, empowers internal auditors to report objectively without fear, enhances auditors' access to truthful information which has the potential to engender higher internal audit quality (Raimo, Vitolla, Marrone & Rubino, 2021) ^[31].

H3: Organizational Culture will mediate AIS and IAQ relationship

The result found that organizational culture acts as a mediator between accounting systems and internal audit quality. The study results support the work of Alawaqleh (2021) whose study in the Jordanian SMEs industry revealed a partial mediation of organizational culture in the relationship between AIS and IAQ.

Finding of the study underpins the Agency Theory. From the perspective of Agency Theory, AIS alone improves monitoring by providing timely, accurate and reliable information and reduces information asymmetry. However, whether AIS actually leads to higher audit quality depends heavily on the organizational culture (Jarrah & Almatarneh, 2021) ^[20]. Accounting Information Systems (AIS) can aid in improving organizational culture as modern transparent AIS promotes openness, accountability, and ethical behavior. By making information more visible, according to Qatawneh (2023) ^[30], AIS discourages opportunistic behavior by agents. Hence, AIS supports a culture of transparency and integrity (Qatawneh, 2023) ^[30]. Organizational culture then enhances IAQ.

Proponents of Agency theory posit that culture reduces agency problems (e.g., management pressure, data concealment), so auditors can produce higher quality audits (Gwala & Mashau, 2023). Thus, AIS improves culture as culture reduces agency conflicts and better IAQ. So, organizational culture is the mechanism (mediator) through which AIS reduces agency problems and enhances IAQ.

Agency Theory explains empirically that organizational culture mediates the relationship between AIS and internal audit quality: AIS enhances transparency and ethical norms, which reduce information asymmetry and opportunism by agents, and this cultural shift empowers internal auditors to perform higher-quality audits (Al-Hiyari *et al.*, 2022). Additionally, studies in Malaysia by Mahzan & Hassan (2021) ^[24] established that culture fully mediated the AIS and IAQ relationship in Malaysian firms. The study finding also underpins the contingency theory. Contingency Theory explains empirically that organizational culture mediates the relationship between AIS and internal audit quality because AIS effectiveness depends on how well it fits the organization's context; when AIS supports an ethical, open culture adapted to complexity and risk, that culture then empowers auditors to improve audit quality (Al-Hiyari *et al.*, 2022).

More so, the study finding is also in tandem with the Information Theory. the Information Theory explains empirically that organizational culture mediates the relationship between AIS and internal audit quality because culture shapes the flow, openness, and accuracy of information from AIS to auditors; when culture reduces noise and distortion, auditors receive higher-quality information, improving IAQ (Alzeban, 2020; Haron *et al.*, 2022).

Conclusion

The study examines the moderating role of organisational culture in the relationship between Accounting Information System and Internal Audit Quality with evidence from Guyana's manufacturing sector.

The study confirms a strong positive relationship between AIS and IAQ, with a standardized beta of 0.780 ($p < 0.001$), suggesting that a well-structured AIS significantly enhances the quality of internal audits. This finding is underpinned by Information Theory, which posits that high-quality information systems improve signal clarity and reduce noise in organizational communication. AIS plays a crucial role in collecting, processing, and disseminating timely and relevant financial data, which internal auditors rely on to make informed decisions, detect anomalies, and plan effective audits (Lenz & Hahn, 2019)^[22].

Also, the study found that Organizational Culture (OC) significantly and positively influences IAQ. Drawing on the Resource-Based View (RBV), organizational culture is recognized as a strategic intangible asset valuable, rare, and inimitable that enhances internal processes including auditing (Barney, 1991). A strong culture grounded in ethical values, openness, and collaboration facilitates audit objectivity, access to truthful information, and coordination across departments, which collectively boost IAQ (Soh & Martinov-Bennie, 2019^[36]; Haron *et al.*, 2022).

The third hypothesis confirmed that Organizational Culture mediates the effect of AIS on IAQ, indicating that the benefits of AIS in promoting audit quality are amplified or constrained by the prevailing cultural environment. Contingency Theory also supports this mediation model by asserting that the efficacy of AIS is contingent upon its alignment with the organizational context, including cultural dimensions. When AIS supports an ethical, communicative culture, it enables internal auditors to act decisively and objectively (Al-Hiyari *et al.*, 2022). This mechanism reinforces the role of culture as a critical conduit through which technological systems enhance internal control effectiveness.

Implications for both Theory and Organizational Practice

The findings from the study provide critical implications for both theory and organizational practice. The significant influence of Accounting Information Systems (AIS) on Internal Audit Quality (IAQ) underscores the importance of technologically sound, accurate, and timely information systems in strengthening audit functions. This affirms and extends *Information Theory* by highlighting how high-quality AIS reduces information asymmetry and supports more effective audits. Practically, it suggests that investments in AIS are not merely technical upgrades but strategic enablers of governance and accountability.

The positive effect of Organizational Culture (OC) on IAQ aligns with the *Resource-Based View* and *Agency Theory*, suggesting that a strong, ethical culture is a non-replicable intangible asset that improves audit judgment, independence, and efficiency. It implies that cultivating values such as transparency, accountability, and support for internal controls can elevate audit outcomes.

The mediation role of OC in the AIS IAQ relationship further illustrates the synergistic impact of technology and human systems, confirming insights from *Contingency Theory*. This highlights that technology adoption alone is

insufficient organizational culture must be conducive to ethical use and internal trust. Therefore, for firms aiming to improve audit effectiveness, integrating AIS with culture-enhancing strategies becomes a necessary dual focus.

Recommendations

Based on the study results, the following recommendations are made:

Strengthen AIS Infrastructure and Capabilities

Organizations should invest in robust, integrated Accounting Information Systems that provide timely, accurate, and reliable financial data to enhance internal audit effectiveness. This includes regular system upgrades, staff training on AIS usage, and ensuring system compatibility with internal audit needs.

Promote a Strong Ethical Organizational Culture

Leaders should cultivate a culture that values transparency, accountability, and ethical behavior. This can be achieved through clear codes of conduct, ethics training, open communication channels, and reward systems that reinforce integrity and collaborative engagement with internal auditors.

Align AIS Implementation with Cultural Values

Organizations should ensure that AIS deployment is not done in isolation but integrated within an ethical and supportive organizational culture. This alignment will enhance the effectiveness of AIS in supporting audit quality, suggesting that both technological and cultural factors must be developed concurrently.

These recommendations offer a strategic roadmap for enhancing internal audit quality through the dual pillars of advanced information systems and a strong ethical culture.

Suggestions for Future Studies

Future studies could compare the moderating role of organizational culture on AIS and internal audit quality across different sectors such as banking, healthcare, public institutions, and tech-based enterprises. This would help generalize or contextualize findings beyond the manufacturing sector.

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