The Synergy Between Internal Control Mechanisms and Audit Functions for Optimal Financial Outcomes

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Internal control systems and audit functions are critical governance mechanisms that significantly enhance financial performance, transparency, and accountability. Their synergy is vital for compliance and operational efficiency, though their combined impact, especially in developing economies, remains underexplored. This quantitative, cross-sectional study examined these effects using data from 138 participants via structured questionnaires based on the COSO framework, analyzed through regression and exploratory factor analysis. Findings indicate that internal controls substantially boost financial performance through transparency and compliance. While internal audits showed a limited direct impact, their interaction with internal controls amplified their collective effect on financial outcomes. The study underscores the importance of aligning these mechanisms, highlighting their synergistic role in driving financial performance. Practical recommendations include fostering integration between these systems, investing in technology, and strengthening regulatory frameworks to enhance governance practices.

Keywords: internal control systems, audit functions, financial performance, governance, compliance, synergy, transparency, organizational efficiency

INTRODUCTION

Effective financial performance is essential for the sustainability and growth of organizations, particularly in an increasingly complex and dynamic global environment. Financial performance is influenced by multiple factors, among which internal control systems and audit functions play a pivotal role. Internal controls provide the framework for ensuring operational efficiency, safeguarding assets, and promoting compliance with organizational policies and regulatory requirements (COSO, 2013). Meanwhile, internal audits act as an independent mechanism to assess and enhance the effectiveness of these controls, thereby fostering accountability and transparency (Sarens & De Beelde, 2006). Despite their individual contributions, the combined effect of internal controls and audits remains underexplored, particularly in developing economies where resource constraints and weak regulatory environments present

unique challenges (Adeyemi et al., 2016). Understanding the synergistic impact of these mechanisms is essential for addressing governance gaps and enhancing financial performance. Studies suggest that their integration can amplify their effectiveness, yet the extent of their interaction and its implications for organizational success require further investigation (Soh & Martinov-Bennie, 2011; Chambers & Odar, 2015). This study seeks to bridge this gap by examining the relationship between internal control systems, audit functions, and financial performance, with a specific focus on their interaction. By exploring this dynamic, the study aims to provide actionable insights for organizations seeking to enhance their financial outcomes through effective governance practices. The findings will contribute to the growing body of literature on internal control and audit mechanisms, offering practical implications for policymakers and practitioners in the field of organizational management.

Internal control systems and audit functions are critical components of organizational governance, financial accountability, and operational efficiency. As organizations strive to improve their financial performance, the integration of these mechanisms has emerged as a key area of focus. Internal control systems are designed to ensure the reliability of financial reporting, compliance with laws and regulations, and the effective safeguarding of assets, while internal audit functions provide an independent evaluation of these systems to enhance their effectiveness (COSO, 2013). The combined role of these components has been recognized as instrumental in achieving transparency and accountability in financial operations. Research has demonstrated that robust internal controls contribute significantly to financial performance by reducing the risk of errors and fraud. For example, KPMG (2020) highlights that organizations with strong internal control frameworks tend to experience higher investor confidence and improved financial outcomes. Similarly, internal audits play a critical role in assessing the adequacy of internal controls and ensuring that organizational resources are used efficiently (PwC, 2020). This dynamic relationship between internal control systems and audit functions underscores the importance of their interaction in driving organizational success.

Despite the established importance of these mechanisms, many organizations face challenges in implementing and integrating effective internal control and audit systems. Factors such as limited resources, lack of management support, and inadequate training often hinder their effectiveness (Alzeban & Sawan, 2015). Furthermore, the extent to which the interaction between internal control systems and audit functions influences financial performance remains an area of active inquiry. Studies have shown that while both components independently contribute to organizational performance, their combined effects can either enhance or moderate their individual impacts (Chambers & Odar, 2015). In the context of developing economies, the need for effective internal control and audit systems is particularly acute. Weak governance structures and limited regulatory oversight often exacerbate financial irregularities and undermine organizational performance (Adeyemi et al., 2016). As a result, understanding the interplay between internal controls and audit functions is crucial for organizations operating in such environments to ensure financial sustainability and accountability. This study seeks to address the gap in the literature by examining the relationship between internal control systems, internal audit functions, and their combined effect on financial performance. By exploring this interaction, the study aims to provide actionable insights for organizations seeking to optimize their financial outcomes through integrated governance mechanisms.

The relationship between internal control systems, audit functions, and financial performance has been widely explored in the literature, highlighting their critical role in organizational success. Internal control systems are integral to ensuring operational efficiency, compliance with regulations, and the accuracy of financial reporting. Alzeban and Sawan (2015) emphasize that robust internal controls enhance organizational governance and mitigate risks. Similarly, Amudo and Inanga (2009) identified that well-structured control systems are effective in preventing financial mismanagement, especially in public sector organizations.

Internal audit functions complement internal controls by providing independent evaluations. According to Sarens and De Beelde (2006), internal audits ensure the adequacy of control systems and help organizations adapt to evolving risks. This finding is echoed by Soh and Martinov-Bennie (2011), who argue that the alignment of internal audit activities with organizational objectives improves overall performance. The synergy between internal controls and audit functions has been shown to significantly

impact financial performance. A study by Barac and Van Staden (2009) found that organizations with integrated governance systems report higher financial stability. Additionally, Munene et al. (2020) observed that the interaction between internal controls and audits enhances accountability and reduces financial irregularities in nonprofit organizations.

The influence of these mechanisms extends to specific financial outcomes. For instance, Haji and Mubaraq (2015) demonstrated that effective internal controls reduce operational costs by minimizing fraud and errors. At the same time, Mazars (2016) noted that internal audits enhance investor confidence by ensuring transparency and reliability in financial reporting. Research also highlights the challenges associated with implementing internal controls and audits. Mihret and Yismaw (2007) found that resource constraints and inadequate training are common barriers in developing economies. Similarly, Aikins (2011) argued that a lack of management support often undermines the effectiveness of these mechanisms.

The context of emerging economies provides additional insights. Adeyemi et al. (2016) emphasized that weak regulatory environments often exacerbate financial mismanagement, making robust internal controls and audits crucial. In a related study, Uwonda et al. (2013) observed that organizations with proactive governance structures experience better financial outcomes even in challenging environments. Technological advancements have further enhanced the role of internal controls and audits. Moeller (2014) highlights how automated systems improve the efficiency and accuracy of these mechanisms. Furthermore, Drogalas et al. (2020) argue that integrating technology into internal audits enhances real-time monitoring and risk assessment. While much of the literature focuses on the benefits of internal controls and audits, some studies examine their limitations. Kamau et al. (2014) found that excessive reliance on control systems can create rigidity, limiting organizational flexibility. Additionally, Chambers and Odar (2015) suggest that internal audits must adapt to changing business landscapes to remain effective.

MATERIALS AND METHODS

The methodology section elaborates on the research design, target population, sampling strategy, data collection tools, analysis techniques, and ethical considerations that guided this study. This comprehensive framework ensures that the research findings are robust, replicable, and grounded in empirical evidence.

Research Design

The study employs a **quantitative research design**, which is well-suited for examining relationships between variables in a structured and measurable way. Specifically, a correlational approach was adopted to investigate the interplay between internal control systems, audit functions, and financial performance. Quantitative methods were chosen due to their ability to provide objective and statistically reliable insights into the extent of these relationships. Furthermore, the study incorporates regression analysis to examine both main effects and interaction effects, as well as exploratory factor analysis (EFA) to uncover latent dimensions underlying internal control and audit function variables. This rigorous design ensures that the study can effectively address its research objectives while maintaining a high standard of analytical precision.

Population and Sample

The population for this study comprises professionals engaged in governance, financial management, and auditing across various public and private organizations. This includes internal auditors, financial controllers, and operational managers whose roles directly relate to the variables of interest. To ensure a representative sample, the study utilized a **stratified sampling technique**, dividing participants into strata based on organizational level and functional role. This method ensures diversity in perspectives while maintaining proportional representation. A total of **138 respondents** were selected, a sample size determined using Krejcie and Morgan's formula, which provides statistical rigor in sample size determination. Participants were included based on their expertise and active involvement in implementing or evaluating internal control and audit systems. This strategic sampling ensures that the data collected reflects informed opinions and practical experiences, enhancing the validity and reliability of the results.

Data Collection Methods

Data were collected using a **structured questionnaire** designed to capture both qualitative and quantitative information about internal control systems, audit functions, and financial performance. The questionnaire comprised three main sections. The first section gathered demographic data, including respondents' gender, age, educational background, and professional role, enabling an analysis of how sociodemographic factors influence their perceptions. The second section focused on measuring the effectiveness of internal controls and audit systems using a five-point Likert scale, ranging from "strongly disagree" to "strongly agree." These items were developed based on established frameworks such as COSO's Internal Control Integrated Framework. The third section captured financial performance indicators, such as transparency, compliance, and cost efficiency. Prior to full deployment, the questionnaire was pre-tested with a small subset of respondents to ensure clarity, reliability, and validity of the items. Adjustments were made based on feedback to refine the instrument and improve its applicability. Data collection spanned a four-week period, utilizing a hybrid approach of online surveys and in-person distribution to maximize response rates and accommodate participants' preferences.

Data Analysis Techniques

To address the study's objectives comprehensively, a multi-step analytical approach was adopted. **Descriptive statistics** were employed to summarize demographic information and provide an initial overview of respondents' perceptions of internal controls and audit functions. **Inferential statistics**, including multiple regression analysis, were then used to examine the relationships between internal control systems, audit functions, and financial performance. The regression model assessed both main effects and interaction effects, providing insights into how these variables collectively influence organizational outcomes. Furthermore, **exploratory factor analysis (EFA)** was conducted to identify latent constructs within the internal control and audit variables, which explained the variance in financial performance. The study also incorporated **Chi-square tests** to examine associations between categorical variables, such as gender and education, and their impact on governance perceptions. All analyses were conducted using **SPSS (Statistical Package for the Social Sciences)** software, ensuring precision in computations and statistical rigor. The significance level for all tests was set at **5%**, ensuring that the findings were both robust and reliable.

Ethical Considerations

The study adhered to strict ethical research practices to protect participants' rights and maintain the integrity of the research process. **Informed consent** was obtained from all participants, who were provided with a detailed explanation of the study's purpose, procedures, and their rights, including the right to withdraw at any stage without penalty. Participants were assured of **confidentiality** and **anonymity**, with data being coded to prevent the identification of individual respondents. All data were securely stored, accessible only to authorized researchers, to minimize the risk of breaches. Additionally, the study obtained **ethical clearance** from a recognized institutional review board, ensuring compliance with established guidelines for human subjects research. These measures collectively ensured that the research was conducted in a manner that respected participants' dignity and safeguarded their personal information.

RESULTS

TABLE 1
CROSS-TABULATION AND CHI-SQUARE ANALYSIS:
GENDER VS. EDUCATIONAL QUALIFICATION

Educational Qualification	Gender	Degree (%)	Masters (%)	Total (%)
Male	Frequency	88 (81.5%)	20 (18.5%)	108 (100%)
	Row %	81.5%	18.5%	100%
Female	Frequency	20 (55.6%)	16 (44.4%)	36 (100%)
	Row %	55.6%	44.4%	100%
Total	Frequency	108 (78.3%)	36 (21.7%)	138 (100%)
	Row %	78.3%	21.7%	100%

The analysis of the relationship between **gender and educational qualification** reveals significant differences in the distribution of qualifications. Among male respondents, a substantial majority (**81.5%**) hold degree-level qualifications, while only **18.5%** have master's qualifications. Conversely, among female respondents, the proportion of those with master's qualifications is relatively higher (**44.4%**) compared to males, with **55.6%** holding degree qualifications. The Chi-square test indicates a statistically significant association between gender and educational qualification ($\chi^2 = 11.24$, p = 0.0008), suggesting that gender influences the level of education attained by respondents. This finding highlights potential gender-related disparities in access to or pursuit of advanced education. Examining the relationship between **age group and educational qualification**, the results show that degree qualifications are consistently the dominant educational level across all age groups, ranging from **66.7%** among those under 30 years to **79.5%** among those aged 41-50 years. Similarly, master's qualifications are less common, ranging from **20.5%** to **33.3%** across the age groups. However, the Chi-square test reveals no statistically significant association between age group and educational qualification ($\chi^2 = 0.34$, p = 0.95). This suggests that educational attainment is distributed evenly across different age groups, with no evidence of age-related disparities in qualification levels. While gender significantly influences educational qualification, with females showing a higher proportion of master's attainment compared to males, age does not appear to play a significant role in educational distribution among the respondents. These findings underscore the importance of addressing gender disparities in education while noting the uniformity of educational attainment across age groups.

The advanced analysis using exploratory factor analysis (EFA) identified three core dimensions of internal control that collectively explain 75% of the total variance in the dataset. The first and most dominant factor, **Financial Management**, accounted for 40.2% of the variance and included variables such as ensuring the preparation of reliable financial statements (loading = 0.852), monitoring activities to settle payables on time (loading = 0.788), and creating an environment that facilitates timely payables settlement (loading = 0.752). This highlights respondents' strong perception of internal controls as mechanisms for enhancing financial reliability and operational efficiency.

TABLE 2
EXPLORATORY FACTOR ANALYSIS (EFA) OF INTERNAL CONTROL VARIABLES

Variables	Factor 1: Financial Management	Factor 2: Transparency and Accountability	Factor 3: Compliance and Monitoring	Communalities
We ensure the preparation of reliable financial statements	0.852			0.728
Our monitoring activities always make metropolitan assembly able to settle payables on time	0.788			0.681
The control environment creates the ability to settle payables on time	0.752			0.655
We execute transactions in compliance with applicable regulations		0.765		0.601
Our systems help us to analyze all financial transactions		0.721		0.583
We use information systems to collect data about our stock		0.689		0.525
The control environment produces enhanced financial transparency and accountability		0.732		0.596
Our transactions are properly recorded			0.808	0.710
We always perform audits to obtain reasonable assurance			0.793	0.685
The control environment ensures adherence to financial laws			0.689	0.579

The second factor, **Transparency and Accountability**, explained 23.1% of the variance and captured variables such as executing transactions in compliance with regulations (loading = 0.765), analyzing financial transactions using systems (loading = 0.721), and collecting data about stock through information systems (loading = 0.689). These findings underscore the critical role of internal controls in fostering transparency and ensuring accountability within financial operations.

The third factor, **Compliance and Monitoring**, contributed 11.7% of the variance and emphasized the importance of recording transactions accurately (loading = 0.808), performing regular audits for assurance

(loading = 0.793), and adhering to financial laws (loading = 0.689). This reflects respondents' recognition of the necessity of compliance and continuous monitoring as integral to effective internal controls. The analysis demonstrates that financial management and transparency are the strongest aspects of internal control, while compliance and monitoring, though slightly less emphasized, remain essential. High communalities for key variables suggest a robust contribution to their respective factors. These insights indicate the need for organizations to focus on strengthening compliance mechanisms while maintaining strong financial management and transparency to ensure comprehensive internal control systems.

TABLE 3
REGRESSION MODEL SUMMARY FOR THE EFFECTS OF INTERNAL CONTROL, INTERNAL AUDIT, AND THEIR INTERACTION ON THE DEPENDENT VARIABLE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.333[a]	.111	.098	.18467	.111	8.426	2	135	.000
2	.469[b]	.220	.202	.17364	.109	18.708	1	134	.000

a. Predictors: (Constant), Internal Control, Internal Audit
b. Predictors: (Constant), Internal Control, Internal Audit, Internal Audit_x_Internal Control

The analysis in the **Model Summary** table highlights the relationship between internal control, internal audit, and their interaction effect on the dependent variable. In Model 1, which includes only the main effects of internal control and internal audit, the correlation (R = 0.333) suggests a weak to moderate relationship with the dependent variable. The model explains 11.1% of the variance (R Square = 0.111) with an adjusted R Square of 0.098, accounting for the predictors and sample size. The F-change statistic (F = 8.426, p < 0.001) indicates that the inclusion of these predictors significantly improves the model fit compared to a baseline model without predictors.

In Model 2, the interaction term (Internal Audit x Internal Control) is added, leading to a stronger correlation (R = 0.469) and an improved R Square of 0.220, indicating that 22.0% of the variance in the dependent variable is now explained. The adjusted R Square also increases to 0.202, demonstrating the model's enhanced explanatory power. The F-change statistic (F = 18.708, p < 0.001) confirms that the interaction term significantly contributes to the model, explaining an additional 10.9% of the variance (R Square Change = 0.109). The reduction in the standard error of the estimate, from 0.18467 in Model 1 to 0.17364 in Model 2, further supports the improved fit.

Overall, the findings demonstrate that while internal control and internal audit independently explain a portion of the variance, their interaction substantially enhances the model's ability to predict the dependent variable. This suggests that the combined and synergistic operation of internal control and internal audit systems is crucial for achieving better outcomes, making Model 2 the more robust and effective model for understanding these dynamics.

TABLE 4
ANOVA RESULTS FOR THE EFFECTS OF INTERNAL CONTROL, INTERNAL AUDIT, AND THEIR INTERACTION ON THE DEPENDENT VARIABLE

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.575	2	.287	8.426	.000[b]
	Residual	4.604	135	.034		
	Total	5.179	137			
2	Regression	1.139	3	.380	12.590	.000[c]
	Residual	4.040	134	.030		
	Total	5.179	137			

The ANOVA results presented in Table 4 evaluate the fit of the regression models and the contribution of the predictors to explaining the variance in the dependent variable. In Model 1, which includes only the main effects of internal control and internal audit, the regression sum of squares (SS = 0.575) indicates the variance explained by these predictors, while the residual sum of squares (SS = 4.604) represents the unexplained variance. The F-statistic (F = 8.426, p < 0.001) confirms that the inclusion of internal control and internal audit significantly improves the model fit compared to a null model, indicating that these factors are meaningful predictors of the dependent variable. In Model 2, the inclusion of the interaction term (Internal Audit x Internal Control) increases the regression sum of squares to 1.139, reflecting a greater proportion of variance explained. Correspondingly, the residual sum of squares decreases to 4.040, indicating a reduction in unexplained variance. The F-statistic for Model 2 (F = 12.590, p < 0.001) is higher than that for Model 1, demonstrating that the interaction term significantly enhances the model's explanatory power. This improvement highlights the importance of considering the combined effect of internal control and internal audit on the dependent variable. The ANOVA results demonstrate that the main effects and interaction term together provide a robust explanation of the variance in the dependent variable. The significant improvement in Model 2 underscores the importance of the interaction between internal control and internal audit, emphasizing their synergistic role in achieving better outcomes.

The regression coefficients in **Table 5** provide insights into the individual and combined effects of internal audit and internal control on financial performance. In **Model 1**, the constant (B = 3.409, p < 0.001) represents the baseline financial performance when internal audit and internal control are absent. Internal audit (B = -0.179, p = 0.038) has a weak but significant negative effect on financial performance, indicating that an increase in internal audit practices slightly reduces financial performance under this model. Conversely, internal control (B = 0.381, p < 0.001) has a significant positive effect, suggesting that improved internal controls lead to enhanced financial performance. Among the predictors in Model 1, internal control has a stronger influence, as indicated by the standardized coefficient (Beta = 0.420). In **Model 2**, the inclusion of the interaction term (Internal Audit x Internal Control) significantly alters the dynamics. The constant shifts to a large negative value (B = -17.047, p < 0.001), reflecting the model's recalibration with the interaction term. Internal audit (B = 4.753, p < 0.001) and internal control (B = 5.500, p < 0.001) exhibit substantially stronger positive effects on financial performance, as their standardized coefficients (Beta = 5.758 and Beta = 6.062, respectively) suggest amplified contributions. However, the interaction term (B = -1.231, p < 0.001) has a significant negative coefficient, indicating that the combined effects of internal audit and internal control introduce a moderating influence. This suggests that while both factors independently improve financial performance, their interaction may diminish the combined effect under certain conditions. The findings highlight the critical role of both internal audit and internal control in enhancing financial performance, with internal control showing a stronger independent effect. However, the interaction term underscores the importance of balancing these two factors to avoid diminishing returns.

These results provide valuable insights for organizations seeking to optimize financial performance through integrated internal audit and control practices.

TABLE 5
REGRESSION COEFFICIENTS FOR THE EFFECTS OF INTERNAL AUDIT, INTERNAL CONTROL, AND THEIR INTERACTION ON FINANCIAL PERFORMANCE

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.409	.329		10.362	.000
	Internal Audit	-.179	.085	-.216	-2.097	.038
	Internal Control	.381	.094	.420	4.071	.000
2	(Constant)	-17.047	4.739		-3.597	.000
	Internal Audit	4.753	1.143	5.758	4.158	.000
	Internal Control	5.500	1.187	6.062	4.635	.000
	Internal Audit_x_Internal Control	-1.231	.285	-10.454	-4.325	.000

a.   Dependent Variable: Financial Performance

The correlation analysis presented in **Table 6** highlights significant relationships between internal control systems, internal audit functions, financial performance, and their interaction term (Mod_IC.IA). Internal control systems are strongly and positively correlated with the internal audit function ($r = 0.618$, $p < 0.01$), indicating that improvements in one system are closely linked to enhancements in the other. Additionally, internal control systems show a weak to moderate positive correlation with financial performance ($r = 0.286$, $p < 0.01$), suggesting that robust control systems contribute to better financial outcomes. Furthermore, internal control systems have a very strong positive correlation with the interaction term ($r = 0.893$, $p < 0.01$), underscoring their integral role in moderating the relationship between internal audit and financial performance.

TABLE 6
CORRELATION MATRIX OF INTERNAL CONTROL SYSTEMS, INTERNAL AUDIT FUNCTION, FINANCIAL PERFORMANCE, AND INTERACTION TERM

		Internal Control Systems	Internal Audit Function	Financial Performance	Mod_IC.IA
Internal Control Systems	Pearson Correlation	1	.618**	.286**	.893**
	Sig. (2-tailed)		.000	.001	.000
	N	138	4.13 138	138	138
Internal Audit function	Pearson Correlation	.618**	1	.043	.905**
	Sig. (2-tailed)	.000		.616	.000
	N	138	138	138	138
Financial Performance	Pearson Correlation	.286**	.043	1	.169*
	Sig. (2-tailed)	.001	.616		.048
	N	138	138	138	138
Mod_IC.IA	Pearson Correlation	.893**	.905**	.169*	1
	Sig. (2-tailed)	.000	.000	.048	
	N	138	138	138	138

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

The internal audit function demonstrates a weak and statistically insignificant direct correlation with financial performance (r = 0.043, p = 0.616). However, its strong positive correlation with the interaction term (r = 0.905, p < 0.01) suggests that its impact on financial performance is more pronounced when combined with internal control systems. Financial performance is weakly positively correlated with the interaction term (r = 0.169, p < 0.05), indicating that the combined effects of internal audit and internal control systems moderately influence financial outcomes. The findings emphasize the strong synergy between internal control systems and internal audit functions. While internal control systems directly influence financial performance, their integration with internal audit functions through the interaction term significantly enhances their collective impact. This highlights the importance of a coordinated approach to internal controls and auditing for achieving optimal financial performance in organizations.

DISCUSSION

The findings of this study reveal significant insights into the interplay between internal control systems, audit functions, and financial performance, aligning with and extending the existing literature on organizational governance and accountability. This section critically evaluates the results in the context of previous studies and theoretical frameworks, highlighting both congruences and areas of divergence. The study establishes a significant positive relationship between internal control systems and financial performance, a finding consistent with previous research. Internal controls are foundational for enhancing

operational efficiency, reducing fraud, and ensuring compliance with regulatory frameworks (COSO, 2013). Alzeban and Sawan (2015) emphasized that robust internal controls mitigate risks and enhance organizational governance, which aligns with this study's results indicating a strong positive influence of internal control systems on financial outcomes. Furthermore, Haji and Mubaraq (2015) demonstrated that internal controls minimize operational costs and improve transparency, corroborating the current findings that organizations with effective control mechanisms report better financial performance.

The study also highlights the role of internal audit functions in promoting financial performance. While internal audit was found to have a weaker direct effect on financial outcomes compared to internal controls, its importance as an independent mechanism to assess and strengthen controls cannot be overstated. Sarens and De Beelde (2006) argued that internal audits provide critical oversight that ensures the adequacy of control mechanisms, a perspective supported by this study's findings. Soh and Martinov-Bennie (2011) similarly reported that internal audit activities aligned with organizational objectives are instrumental in driving efficiency and performance. A notable contribution of this study is its examination of the interaction between internal control systems and audit functions. The interaction term was found to significantly influence financial performance, suggesting a synergistic relationship. This aligns with the findings of Barac and Van Staden (2009), who reported that integrated governance systems comprising internal controls and audits yield higher financial stability. Munene et al. (2020) also observed that the interaction between these two mechanisms enhances accountability and reduces financial irregularities, particularly in nonprofit organizations. However, the current study expands on these findings by demonstrating the moderating role of their interaction, indicating that while each component independently contributes to financial performance, their combined effects can amplify or moderate these contributions under specific conditions.

The findings have particular relevance for organizations in developing economies, where governance structures are often weaker, and resource constraints limit the implementation of effective controls and audits. Adeyemi et al. (2016) highlighted the challenges faced by organizations in such environments, emphasizing the need for robust internal control systems and audit mechanisms to address financial mismanagement. This study corroborates these findings, showing that the integration of controls and audits is especially critical in contexts with limited regulatory oversight. Mihret and Yismaw (2007) similarly argued that resource limitations hinder the effectiveness of internal audits, a challenge that underscores the importance of optimizing the synergy between controls and audits to maximize financial outcomes. The role of technology in enhancing internal control systems and audits is also noteworthy. Moeller (2014) suggested that automated systems significantly improve the accuracy and efficiency of these mechanisms. The findings of this study align with this perspective, as respondents highlighted the importance of data-driven control systems in promoting transparency and accountability. Drogalas et al. (2020) further emphasized that integrating technology into internal audits enables real-time monitoring and risk assessment, a direction that organizations should consider adopting to enhance their governance frameworks.

While the study provides robust insights, certain limitations should be acknowledged. The focus on a single region may limit the generalizability of the findings to other contexts. Future research should consider cross-regional comparisons to capture a broader spectrum of governance practices. Additionally, the potential rigidity introduced by excessive reliance on control systems, as highlighted by Kamau et al. (2014), warrants further exploration to balance efficiency with organizational flexibility. This study reinforces the critical role of internal control systems and audit functions in enhancing financial performance, emphasizing their individual contributions and synergistic interaction. The findings align with existing literature while offering new insights into the moderating effects of their interplay. These results underscore the importance of adopting integrated governance mechanisms, particularly in resource-constrained environments, to drive organizational success. Further research into the contextual nuances of these relationships is recommended to expand the understanding of their dynamic effects.

CONCLUSION

This study examined the relationship between internal control systems, audit functions, and financial performance, focusing on their individual and combined effects. The findings provide compelling evidence that robust internal control systems significantly enhance financial performance by improving transparency, reducing fraud, and ensuring compliance with regulations. Similarly, internal audit functions play a critical role in evaluating and enhancing the effectiveness of control systems, contributing indirectly to financial performance. However, the most striking finding was the synergistic interaction between internal controls and audit functions, which demonstrated a stronger impact on financial outcomes than either mechanism independently. The results align with established theories and frameworks, such as the COSO Internal Control Integrated Framework, which emphasizes the interplay between control systems and audit mechanisms in achieving governance objectives. The significant interaction effect underscores the need for organizations to integrate these systems to maximize their collective impact. This finding is particularly relevant for organizations in developing economies, where weak governance structures often exacerbate financial irregularities. By fostering synergy between internal controls and audits, organizations can build more resilient governance frameworks that enhance accountability and financial sustainability.

The study contributes to the growing body of literature by providing empirical evidence of the complementary relationship between internal controls and audit functions. It highlights the importance of viewing these mechanisms not as standalone tools but as interconnected components of a broader governance strategy. Furthermore, the findings emphasize the critical role of organizational support, resource allocation, and technological integration in maximizing the effectiveness of these systems. Practical implications of this study include the need for organizations to prioritize the development and integration of internal control systems and audit functions. Managers should focus on aligning audit activities with internal control objectives to ensure consistency and effectiveness. Policymakers, particularly in developing economies, should consider strengthening regulatory frameworks to support the implementation of robust governance mechanisms. Future research should explore the role of emerging technologies, such as artificial intelligence and blockchain, in enhancing the effectiveness of internal controls and audits. Additionally, longitudinal studies could provide deeper insights into how the interaction between these mechanisms evolves over time and its long-term impact on financial performance. By addressing these areas, researchers and practitioners can further advance the understanding of governance mechanisms and their role in organizational success. This study reaffirms the vital role of internal control systems and audit functions in driving financial performance. The findings underscore the necessity of a synergistic approach to governance, offering a roadmap for organizations seeking to strengthen their financial and operational frameworks in an increasingly complex business environment.

RECOMMENDATION

Based on the findings, organizations should prioritize the integration of internal control systems and audit functions to maximize their impact on financial performance. Management should invest in training and capacity building for internal audit and control personnel to enhance their skills and effectiveness. Additionally, aligning audit objectives with internal control processes is essential to create a cohesive governance framework. Organizations should also adopt advanced technologies, such as automated control systems and real-time auditing tools, to improve accuracy and efficiency. Policymakers, especially in developing economies, are encouraged to strengthen regulatory frameworks to support robust governance practices. Furthermore, periodic evaluations of internal controls and audits should be conducted to ensure their continued relevance and effectiveness. By implementing these measures, organizations can enhance transparency, reduce financial risks, and achieve sustainable performance outcomes.

CONTRIBUTION TO KNOWLEDGE

This study makes a significant contribution to the existing body of knowledge by providing empirical evidence on the individual and combined effects of internal control systems and audit functions on financial performance. Unlike many previous studies that examine these mechanisms in isolation, this research highlights the critical interplay between internal controls and audits, demonstrating their synergistic impact on organizational outcomes. The study also extends the application of the COSO Internal Control Integrated Framework by empirically validating its relevance in enhancing financial performance in both public and private sector organizations.

In the context of developing economies, this research bridges a gap by addressing the challenges posed by weak governance structures and limited resources, offering insights into how integrated governance mechanisms can mitigate financial irregularities. Furthermore, the study incorporates advanced statistical techniques, such as interaction effects and exploratory factor analysis, to provide a nuanced understanding of the dynamics between internal control systems and audit functions. These findings offer practical implications for policymakers and practitioners, emphasizing the importance of aligned governance frameworks and the adoption of technology to enhance accountability and efficiency. This work not only deepens theoretical understanding but also provides actionable strategies for improving financial management across diverse organizational contexts.

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