

Internal Audit And Financial Governance Of Public Organizations In The Democratic Republic Of Congo

BUKASA TSHIBANGU Aaron¹

¹Doctoral student and researcher, Faculty of Economics and Management, University of Kinshasa,

Corresponding Author: BUKASA TSHIBANGU Aaron, aaronbukasa09@gmail.com



Résumé : Cette étude analyse l'impact de l'audit interne sur la gouvernance financière des organisations publiques en République démocratique du Congo. Elle vise à évaluer l'influence de l'audit interne sur la transparence financière, la redevabilité des gestionnaires publics et la performance organisationnelle. La recherche adopte une approche quantitative fondée sur le paradigme positiviste. Les données ont été recueillies auprès de 384 répondants au moyen d'un questionnaire structuré utilisant une échelle de Likert à cinq modalités. Les analyses statistiques ont porté sur les statistiques descriptives, les tests de fiabilité, l'analyse factorielle exploratoire, les corrélations et les régressions multiples. Les résultats montrent que l'audit interne exerce un impact globalement positif et significatif sur la gouvernance financière. Les missions d'assurance, les missions de conseil, la gestion des risques, le suivi des recommandations et l'indépendance de l'audit interne apparaissent comme les principaux déterminants de la transparence financière, de la redevabilité et de la performance organisationnelle. Ces résultats soulignent la nécessité de renforcer les dispositifs d'audit interne afin d'améliorer durablement la gouvernance financière des organisations publiques.

Mots-clés : Audit interne ; Gouvernance financière ; Transparence financière ; Redevabilité ; Performance organisationnelle ; Organisations publiques ; République démocratique du Congo.

Abstract: This study examines the impact of internal auditing on the financial governance of public organizations in the Democratic Republic of the Congo. It aims to assess the influence of internal auditing on financial transparency, public accountability, and organizational performance. The research adopts a quantitative approach based on the positivist paradigm. Data were collected from 384 respondents using a structured questionnaire based on a five-point Likert scale. Statistical analyzes included descriptive statistics, reliability tests, exploratory factor analysis, correlation analysis, and multiple regression. The findings reveal that internal auditing has an overall positive and significant impact on financial governance. Assurance activities, consulting activities, risk management, follow-up of audit recommendations, and auditor independence emerge as the main determinants of financial transparency, accountability, and organizational performance. These findings highlight the strategic importance of strengthening internal audit systems to improve financial governance, enhance accountability, and promote sustainable organizational performance in public institutions.

Keywords: Internal audit; Financial governance; Financial transparency; Accountability; Organizational performance; Public organizations; Democratic Republic of the Congo.

Introduction

Over the past two decades, the financial governance of public organizations has become a major concern for states, international institutions, and technical and financial partners. Faced with increasing demands for transparency, accountability, and efficiency in the management of public resources, public administrations are called upon to strengthen their internal control mechanisms in order to improve the quality of financial management and restore public trust [1], [2]. In this context, internal auditing has

emerged as a strategic governance tool for evaluating control processes, managing risks, and improving organizational performance [3].

At the international level, several reforms inspired by the principles of New Public Management have led public administrations to adopt modern governance mechanisms based on performance, accountability, and transparency [4], [5]. In this context, internal audit is no longer limited to an accounting verification function, but now constitutes a permanent assurance and advisory mechanism designed to support managers in improving governance, risk management, and internal control [3], [6].

In Africa, public finance reforms undertaken in several countries also aim to improve the quality of financial governance and strengthen the fight against corruption, embezzlement of public funds, and control deficiencies. Despite these efforts, many administrations continue to face institutional weaknesses characterized by insufficient internal control, a weak culture of accountability, and limited effectiveness of internal audit mechanisms [7], [1].

The Democratic Republic of Congo (DRC) is no exception to this reality. For several years, the Congolese government has undertaken various reforms aimed at modernizing public financial management, notably through the implementation of the law on public finances, the strengthening of control systems, the progressive digitization of budgetary procedures, and the improvement of public spending monitoring mechanisms [8], [2]. These reforms reflect the government's commitment to promoting financial governance based more on the principles of transparency, accountability, and performance.

Despite these institutional advances, several national reports highlight the persistence of numerous shortcomings in the financial management of public organizations. Reports from the Court of Auditors of the Democratic Republic of Congo [9], [10] note recurring irregularities in budget execution, weaknesses in internal control, deficiencies in the justification of public expenditures, delays in the production of accounts, and poor implementation of recommendations made by oversight bodies. Similarly, missions by the General Inspectorate of Finance (IGF) regularly reveal cases of mismanagement, non-compliance with financial procedures, and weak control mechanisms within several public institutions [11].

These shortcomings highlight the importance of strengthening the role of internal audit as a tool for improving financial governance. Indeed, an effective internal audit system not only helps prevent financial risks and administrative irregularities, but also improves the quality of financial information, enhances the transparency of operations, and promotes a culture of accountability within public organizations [12], [13], [3].

This research is situated within this context, marked by both the increasing demands for good governance and the persistent challenges of public financial management. It aims to analyze the impact of internal auditing on the financial governance of public organizations in the Democratic Republic of Congo, with a particular focus on its influence on financial transparency, institutional accountability, and organizational performance. The expected results should contribute to enriching scientific knowledge on public governance and to formulating recommendations likely to improve the effectiveness of internal audit mechanisms in Congolese public organizations.

1. Conceptual framework

1.1. Internal Audit

Internal auditing is now one of the main governance mechanisms enabling organizations to improve their management, control their risks, and increase their performance. Its gradual evolution reflects the shift from a simple accounting control function to a strategic function of value creation and continuous organizational improvement. To better understand its role in the financial governance of public organizations, it is necessary to examine successively its historical development, its definitions, its objectives, its fundamental principles, its missions, its components, and its importance within public administrations.

Internal auditing originated in the early mechanisms for controlling accounting operations implemented by large industrial companies at the beginning of the 20th century. Initially focused on verifying accounting entries and preventing fraud, it gradually evolved into an assurance and advisory function. Today, internal auditing is a strategic governance tool used to improve risk management, internal control, and organizational performance [14], [15].

Internal auditing is now considered one of the main instruments of governance and management of organizations. Its conceptual evolution reflects the profound transformations of the economic, institutional and regulatory environment, which require organizations to manage more transparently, more responsibly and more performance-orientedly. Initially limited to the control of accounting operations and the detection of irregularities, internal auditing has gradually become a strategic function actively participating in the improvement of governance, risk management and internal control [14], [16].

The benchmark definition is that proposed by the Institute of Internal Auditors (IIA), the international standards body for the profession. According to the Global Internal Audit Standards, internal auditing is “an independent and objective assurance and advisory activity designed to create and protect organizational value. It enhances organizational success by providing the board of directors and management with risk-based assurance, advice, analysis, and forward-looking perspectives” [15]. This definition highlights two essential characteristics of internal auditing: its independent assurance mission and its advisory role to management to improve organizational processes.

1.2. Financial Governance

Financial governance refers to all the mechanisms, rules, processes, and practices that govern the management of an organization's financial resources to ensure their efficient, transparent, and responsible use. It provides a framework for guiding financial decisions, strengthening control mechanisms, and guaranteeing the optimal use of available resources. According to the Organisation for Economic Co-operation and Development (OECD), good financial governance promotes budgetary discipline, transparency in fund management, accountability of managers, and the sustainability of organizations [1].

Financial governance is based on several fundamental principles, including transparency, accountability, integrity, internal control, risk management, compliance with laws and regulations, and efficiency in resource allocation. These principles help to limit the risks of fraud, corruption, waste, and mismanagement while improving the quality of financial information and decision-making [2], [6].

In the public sector, financial governance is of particular importance due to the need to ensure rigorous management of public funds and to meet citizens' expectations for transparency and quality of public services. It aims to strengthen stakeholder confidence, improve the effectiveness of public policies and ensure that public resources are used in accordance with development objectives and good governance requirements [1], [2].

Thus, effective financial governance contributes not only to improved organizational performance, but also to strengthened internal control, reduced financial irregularities, better risk management, and the creation of sustainable value for all stakeholders. In this context, internal audit is a key lever for consolidating financial governance practices and promoting more efficient and responsible public management [15].

1.3. Financial Transparency

Financial transparency refers to the degree of clarity, reliability, accuracy, and accessibility of information relating to the management of an organization's financial resources. It involves the production, dissemination, and communication of complete, truthful, and understandable financial information that allows various stakeholders to assess how resources are mobilized, allocated, and used. It is therefore a fundamental principle of modern financial governance, promoting informed decision-making and effective control of financial activities.

According to the Organisation for Economic Co-operation and Development (OECD), financial transparency strengthens the confidence of citizens, technical and financial partners, and oversight bodies by ensuring access to reliable and verifiable financial information. It also promotes citizen oversight, improves the credibility of public institutions, and reduces the risks of fraud, corruption, embezzlement of public funds, and mismanagement [1].

1.4. Accountability

Accountability refers to the obligation of public managers to report on their decisions, actions, and the use of the resources entrusted to them. It implies that those in charge must be able to justify their results, take responsibility for the consequences of

their actions, and meet the requirements of oversight bodies as well as the expectations of citizens. It thus constitutes an essential mechanism for controlling public action and holding leaders accountable.

According to Bovens, accountability is one of the foundations of democratic governance since it establishes a relationship of responsibility between public managers and stakeholders. It is not limited to the presentation of financial accounts, but also encompasses the obligation to demonstrate that public resources have been used in accordance with the objectives set, in compliance with the principles of legality, effectiveness and efficiency [17].

1.5. Organizational Performance

Organizational performance refers to an organization's ability to achieve its assigned objectives while making optimal use of its human, material, financial, and technological resources. It is a key indicator of management effectiveness and efficiency, allowing for the evaluation of results achieved in relation to the resources deployed. Performance is therefore not limited to the financial dimension, but also encompasses service quality, operational efficiency, stakeholder satisfaction, risk management, innovation capacity, and continuous process improvement.

According to Kaplan and Norton, organizational performance should be assessed through several complementary dimensions, including financial results, internal processes, organizational learning, and customer or user satisfaction [18]. This multidimensional approach allows for a more comprehensive evaluation of an organization's ability to create value and sustainably achieve its strategic objectives.

In public organizations, organizational performance is primarily reflected in the efficient management of public resources, improved quality of services provided to citizens, adherence to good governance principles, and the achievement of public policy objectives. In this regard, an effective internal audit system contributes to strengthening control mechanisms, improving decision-making, and optimizing the organization's overall performance [1], [2].

2. Theoretical framework

The theoretical framework encompasses the main conceptual approaches used to explain the relationships between the variables studied. In this research, the analysis of the impact of internal audit on the financial governance of public organizations draws on four complementary theories: agency theory, governance theory, institutional theory, and stakeholder theory. These approaches provide a relevant interpretive framework for understanding the role of internal audit in strengthening transparency, accountability, and organizational performance.

2.1. Agency Theory

Developed by Jensen and Meckling (1976), agency theory constitutes one of the major theoretical foundations of organizational governance. It analyzes the contractual relationships that are established between a principal, owner of the resources (the state in the public sector), and an agent, responsible for managing them and making decisions on its behalf. This relationship can generate conflicts of interest when the objectives of managers diverge from those of the principal, thus creating problems of opportunism and information asymmetry [19], [20].

Agency theory is particularly relevant in the context of public organizations, where managed resources primarily come from public finances and must be used in the public interest. It thus justifies the need for an independent internal audit function to strengthen managerial oversight, promote responsible financial governance, and ensure the effective, efficient, and transparent use of public resources [15], [19]. This theory therefore constitutes one of the main conceptual foundations of this research, which seeks to analyze the impact of internal audit on the financial governance of public organizations in the Democratic Republic of Congo.

2.2. Governance Theory

Governance theory focuses on the mechanisms, structures, and processes that enable effective, responsible, and transparent management of organizations. It emphasizes the systems designed to guide management decisions, protect organizational

resources, and balance the interests of various stakeholders. According to Charreaux (1997), good governance relies on the existence of control, supervision, and coordination mechanisms capable of improving the quality of managerial decisions and limiting opportunistic behavior [21].

In public organizations, this theory is of particular interest as it highlights the role of internal audit in strengthening transparency, accountability, and performance in public management [15], [21]. It thus provides a relevant analytical framework for understanding how internal audit contributes to improving the financial governance of public organizations in the Democratic Republic of Congo.

3. Methodological approach

This research adopts a quantitative approach, which involves collecting, measuring, and analyzing numerical data to explain the relationships between the variables studied and to test the research hypotheses. According to Creswell and Creswell (2023), the quantitative approach relies on the objective measurement of phenomena, the collection of standardized data, and the use of statistical methods to test the relationships between variables and generalize the results to the entire studied population [22].

The choice of this approach is justified by the nature of the problem and the objectives pursued. Indeed, this study seeks to measure the impact of internal auditing on the financial governance of public organizations in the Democratic Republic of Congo through three main dimensions: financial transparency, the accountability of public managers, and organizational performance. The quantitative approach thus makes it possible to quantify respondents' perceptions, assess the strength of the relationships between variables, and empirically verify the hypotheses formulated.

Data collection will be carried out using a structured questionnaire with items measured on a five-point Likert scale. The collected data will then undergo statistical processing using specialized software, such as Jamovi or SPSS. The planned analyses will include descriptive statistics, reliability tests (Cronbach's alpha and McDonald's omega), validity tests (Kaiser-Meyer-Olkin and Bartlett), exploratory factor analysis, correlation analyses, and multiple regressions to test the research hypotheses [23].

Adopting a quantitative approach ensures a rigorous, objective, and reproducible analysis of the data. It also allows for the production of reliable and generalizable results, which can contribute to a better understanding of the influence of internal auditing on the financial governance of public organizations in the Democratic Republic of Congo.

The target population for this research consists of public organizations in the Democratic Republic of Congo. These organizations include ministries, public institutions, public enterprises, central and decentralized administrations, as well as other public institutions with a financial management system and an internal audit or internal control function.

The choice of this population is justified by the fact that these organizations manage public resources and are subject to high requirements of financial transparency, accountability and performance. They also constitute the main framework for the implementation of reforms undertaken by the Congolese Government in the areas of financial governance, internal control and modernization of public finance management [8].

The sample size is determined using the formula proposed by Cochran (1977), which is widely used in quantitative research when the population is unknown or very large [24].

The formula is as follows:

SAMPLE SIZE FORMULA

$$n = \frac{N}{1 + N(e)^2}$$

n = sample size

N = population size

e = margin of error

APPLICATION OF THE FORMULA – PRUDENT FORMULATION

STEP	CALCULATION		DETAILS / RESULTS
1	$n = \frac{10,000}{1 + 10,000(0.05)^2}$	→	
2	$n = \frac{10,000}{1 + 10,000(0.0025)}$	→	$(0.05)^2 = 0.0025$
3	$n = \frac{10,000}{1 + 25}$	→	$10,000 \times 0.0025 = 25$
4	$n = \frac{10,000}{26}$	→	$1 + 25 = 26$
5	$n = 384.62 \approx \mathbf{384}$	→	Rounded up to the next whole number

The minimum sample size is therefore 384 respondents.

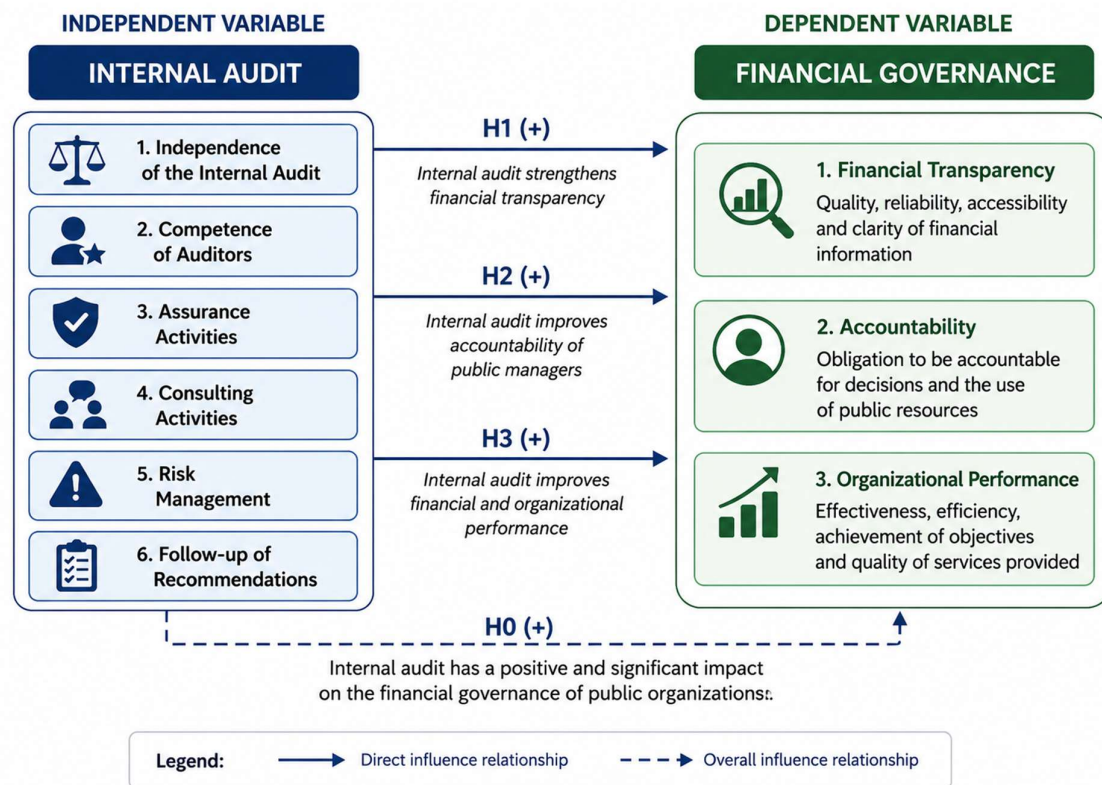
Table 1. Operationalization of the assumptions

Hypotheses	Variables	Dimensions	Indicators	Examples of items	Measurement scale	Theoretical references
HG: Internal auditing has a positive and significant impact on the financial governance of public organizations in the DRC.	Independent variable: Internal audit Dependent variable: Financial governance	Internal audit; Financial transparency; Accountability; Organizational performance	Overall effectiveness of internal audit; overall level of financial governance	Internal auditing helps to improve the financial governance of our organization.	Likert scale of 5 points (1 = Strongly disagree; 5 = Strongly agree)	Jensen & Meckling (1976); Charreaux (1997); IIA (2024)
H1: Internal auditing contributes positively and significantly to strengthening	Internal Audit → Financial Transparency	Audit independence; Assurance engagements; Financial	Auditor independence; Reliability of financial information; Compliance with	Audit reports improve the transparency of financial information.	5-point Likert	IIA (2024); OECD (2024); Mihret & Yismaw

financial transparency.		transparency	procedures; Financial communication			(2007)
H2: Internal audit has a positive and significant effect on the accountability of public managers.	Internal Audit → Accountability	Consulting missions; Follow-up on recommendations; Accountability	Accountability; Compliance with obligations; Follow-up on recommendations; Justification of decisions	The recommendations of the internal audit reinforce the responsibility of managers.	5-point Likert	Bovens (2007); Arena & Azzone (2009); IIA (2024)
H3: Internal auditing positively and significantly improves organizational performance.	Internal Audit → Organizational Performance	Auditor competence; Risk management; Organizational performance	Effectiveness; Efficiency; Achievement of objectives; Quality of services; Resource optimization	Internal auditing helps to improve the overall performance of our organization.	5-point Likert	Kaplan & Norton (1996); Cohen & Sayag (2010); Pickett (2020); Moeller (2022)

Source: Adapted from Jensen and Meckling (1976), Kaplan and Norton (1996), Bovens (2007), Arena and Azzone (2009), Cohen and Sayag (2010), Pickett (2020), Hair et al. (2022), Institute of Internal Auditors (2024) and adapted by the author.

Figure 1. Conceptual model of the study



The conceptual model presented highlights the assumed relationships between the research variables. The independent variable is internal audit, understood through six dimensions: the independence of internal audit, the competence of auditors, assurance engagements, consulting engagements, risk management, and the follow-up of recommendations.

The dependent variable is financial governance, measured from three main dimensions: financial transparency, accountability of public managers and organizational performance.

The model posits that the effectiveness of internal auditing has a positive and significant influence on each of these three dimensions. These three relationships, taken together, explain the general hypothesis that internal auditing contributes to strengthening the financial governance of public organizations in the Democratic Republic of Congo.

This conceptual model thus constitutes the reference framework for the research and will serve as the basis for the development of the survey questionnaire as well as for the empirical verification of the hypotheses using the planned statistical analyses.

4. Presentation, analysis and interpretation of the results

After presenting the theoretical foundations of the research and the methodological approach adopted, this third chapter is devoted to the presentation, analysis, and interpretation of the data collected from public organizations in the Democratic Republic of Congo. It aims to describe the characteristics of the sample, evaluate the quality of the measurement instruments, analyze the relationships between the variables studied, and verify the formulated research hypotheses. The analyses performed are based on descriptive and inferential statistical methods that allow for an assessment of the impact of internal auditing on financial governance.

4.1. Descriptive statistics

Descriptive statistics constitute the first step in quantitative data analysis. They allow us to summarize the main characteristics of the variables studied by highlighting their central tendency and dispersion. According to Hair et al., this analysis provides an overview of the data before reliability, validity, and inferential analyses are performed [23].

Table 2. Descriptive statistics of the composite variables in the study

	IND_SC ORE	COMP_SC ORE	ASS_SC ORE	CONS_SC ORE	RIS_SC ORE	SUI_SC ORE	TRANS_SC ORE	RED_SC ORE	PERF_SC ORE
N	384	384	384	384	384	384	384	384	384
Missin g	0	0	0	0	0	0	0	0	0
Averag e	3.53	3.56	3.54	3.53	3.54	3.52	3.46	3.45	3.48
Median	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
Standar d deviati on	0.662	0.658	0.662	0.648	0.646	0.664	0.543	0.536	0.574
Minim um	1.75	1.75	2.00	1.75	1.75	1.75	2.00	2.00	1.75
Maxim um	5.00	5.00	5.00	5.00	5.00	5.00	4.75	5.00	5.00

Descriptive statistics show that all variables have averages above 3.40, reflecting an overall favorable perception among respondents regarding internal audit and financial governance. Among the dimensions of internal audit, auditor competence has the highest average score ($M = 3.56$), followed by assurance engagements, risk management, internal audit independence, consulting engagements, and follow-up on recommendations. For financial governance, organizational performance has the highest average score ($M = 3.48$), followed by financial transparency ($M = 3.46$) and accountability ($M = 3.45$). The low standard deviations (all below 0.70) and identical medians (3.50) indicate a high degree of homogeneity in responses and a balanced distribution of data. Overall, these results highlight a favorable assessment of internal audit practices and financial governance, providing a solid basis for further statistical analyses.

4.2. Exploratory Factor Analysis (EFA)

Exploratory factor analysis (EFA) is an essential step in validating measurement instruments used in quantitative research. It allows researchers to identify the underlying structure of the data and to verify whether the different items group together according to the theoretical dimensions retained in the conceptual model. According to Hair et al., EFA aims to reduce a large set of observed variables into a smaller number of latent factors, while maximizing the information contained in the data [23].

Table 3. Results of the Kaiser-Meyer-Olkin (KMO) test and Bartlett's sphericity test

Indicator	Value	Interpretation
KMO Index	0.931	Excellent level of sample fit (Kaiser, 1974)
Bartlett's sphericity test	$\chi^2 = \dots$; ddl = $\dots$; p<0.001	The correlation matrix is not an identity matrix; the correlations between the variables are statistically significant.

Source: Results of analyses performed under Jamovi (2026).

The Kaiser-Meyer-Olkin (KMO) index obtained is 0.931, a value well above the minimum threshold of 0.70 recommended by Hair et al. [23]. According to Kaiser's classification, a coefficient above 0.90 is considered excellent (marvelous), indicating that the sample is very well suited for exploratory factor analysis [25].

Furthermore, Bartlett's test of sphericity was statistically significant ($p < 0.001$), confirming that the correlations between the variables were sufficient to proceed with factor extraction. Detailed results for the MSA indices of each item, ranging from 0.904 to 0.950, are presented in the appendix. These values, all above the recommended threshold of 0.50, confirm that all items contribute satisfactorily to the factor structure of the scales used in this research.

These results allow us to conclude that the conditions necessary for carrying out the exploratory factor analysis are fully satisfied and that the data can be used to identify the underlying dimensions of internal audit and financial governance.

Table 4. Summary of factors extracted by exploratory factor analysis

Postman	Dimension	Number of items	Minimum saturation	Maximum saturation
F1	Organizational performance	4	0.819	0.870
F2	Accountability	4	0.822	0.839
F3	Follow-up to recommendations	4	0.786	0.845
F4	Insurance assignments	4	0.787	0.866
F5	Auditor competence	4	0.757	0.847
F6	Independence of internal audit	4	0.792	0.855
F7	Consulting assignments	4	0.769	0.852
F8	Financial transparency	4	0.754	0.871
9	Risk management	4	0.770	0.837

Source: Results of analyses performed under Jamovi (2026).

The results of the exploratory factor analysis show that the 36 questionnaire items are distributed across nine distinct factors, in accordance with the research's conceptual model. Each factor comprises four items corresponding to a specific dimension of internal audit or financial governance, thus confirming the consistency between the empirical structure and the theoretical constructs.

Factor loadings, ranging from 0.754 to 0.871, are all well above the recommended threshold of 0.50, demonstrating excellent construct validity. The dimensions with the highest factor loadings are financial transparency, organizational performance, and assurance services, while the other dimensions also exhibit high factor loadings.

Overall, these results confirm that the nine constructs are accurately represented by their respective indicators and that the conceptual model possesses excellent psychometric properties. They thus justify further correlation analyses, multiple regression analyses, and verification of the research hypotheses.

4.4. Multiple Regression Analysis

Multiple regression analysis allows us to assess the influence of different dimensions of internal audit on the financial governance of public organizations. In this study, the independent variables are the independence of internal audit (IND_SCORE), the competence of auditors (COMP_SCORE), assurance engagements (ASS_SCORE), advisory engagements (CONS_SCORE), risk management (RIS_SCORE), and the follow-up of recommendations (SUI_SCORE).

Four regression models will be estimated to test the research hypotheses: the first will explain financial transparency, the second accountability, the third organizational performance, and the fourth overall financial governance (HG). Interpretation will be based on the regression coefficients (β), the coefficient of determination (R^2), the adjusted R^2 , the F-statistic, and the p-values. Hypotheses will be considered validated when the coefficients are positive and statistically significant ($p < 0.05$). The results will be supplemented by diagnostic tests of the model, including the VIF, tolerance, the Durbin-Watson test, and checks for normality of residuals and homoscedasticity.

4.4.1. Influence of internal audit on financial transparency

This first multiple regression assesses the influence of internal audit dimensions on financial transparency (TRANS_SCORE). The explanatory variables are internal audit independence (IND_SCORE), auditor competence (COMP_SCORE), assurance engagements (ASS_SCORE), consulting engagements (CONS_SCORE), risk management (RIS_SCORE), and follow-up on recommendations (SUI_SCORE).

The regression model is expressed as follows:

$$TRANS = \beta_0 + \beta_1 IND + \beta_2 COMP + \beta_3 ASS + \beta_4 CONS + \beta_5 RIS + \beta_6 SUI + \varepsilon$$

The interpretation of the results will be based on the regression coefficients (β), the t-values, the p-values, the coefficient of determination (R^2) and the F-statistic. An influence will be considered significant when $p < 0.05$, which will allow us to confirm or refute the hypothesis that internal audit contributes positively to strengthening the financial transparency of public organizations.

Table 5. Overall quality of the regression model

			General model test			
Model	R	R^2	F	ddl1	ddl2	p
1	0.840	0.706	151	6	377	<.001

The results of the overall model test show that the multiple regression model demonstrates an excellent goodness of fit. The multiple correlation coefficient ($R = 0.840$) highlights a strong positive relationship between the dimensions of internal audit and financial transparency. This value indicates that the selected explanatory variables move in the same direction as the dependent variable and are strongly associated with it.

The coefficient of determination ($R^2 = 0.706$) shows that 70.6% of the variation in financial transparency is explained by the six dimensions of internal audit: internal audit independence, auditor competence, assurance engagements, advisory engagements, risk management, and follow-up on recommendations. The remaining 29.4% is attributable to other factors not included in the model, as well as random errors.

Furthermore, Fisher's exact statistic ($F = 151$; $df1 = 6$; $df2 = 377$; $p < 0.001$) is highly significant. This result indicates that the regression model is generally valid and that the independent variables, taken together, have a significant influence on financial transparency.

These results confirm the high quality of the estimated model and demonstrate that internal audit dimensions are important determinants of financial transparency within public organizations. They provide initial empirical support for hypothesis H1, which states that internal audit contributes positively and significantly to strengthening the financial transparency of public organizations in the Democratic Republic of Congo.

Table 6. ANOVA test of the effects of internal audit dimensions on financial transparency

	Sum of squares	ddl	Average squares	F	p
IND_SCORE	0.603	1	0.6029	6.84	.009
COMP_SCORE	0.517	1	0.5174	5.87	.016
ASS_SCORE	0.393	1	0.3928	4.46	.035
CONS_SCORE	1.101	1	1.1012	12.49	<.001
RIS_SCORE	0.225	1	0.2247	2.55	.111
SUI_SCORE	1.040	1	1.0402	11.80	<.001
Residues	33.234	377	0.0882		

The results of the ANOVA test show that several dimensions of internal audit have a statistically significant influence on financial transparency. Specifically, the independence of internal audit ($F = 6.84$; $p = 0.009$), the competence of auditors ($F = 5.87$; $p = 0.016$), assurance engagements ($F = 4.46$; $p = 0.035$), consulting engagements ($F = 12.49$; $p < 0.001$), and the follow-up to recommendations ($F = 11.80$; $p < 0.001$) all show statistically significant effects at the 5% level. These results demonstrate that these dimensions contribute significantly to improving the financial transparency of public organizations.

In contrast, the risk management dimension did not have a statistically significant effect on financial transparency ($F = 2.55$; $p = 0.111$), with the observed probability exceeding the 5% significance threshold. Therefore, this dimension, taken in isolation, is not a determining explanatory factor for financial transparency in the estimated model.

Overall, these results highlight that financial transparency is primarily influenced by the independence of internal audit, the competence of auditors, assurance engagements, consulting engagements, and the follow-up to recommendations. They thus reinforce the conclusions of the global regression model and provide empirical support for hypothesis H1, which states that internal audit contributes positively and significantly to strengthening the financial transparency of public organizations in the Democratic Republic of Congo.

Table 7. Regression coefficients of the model explaining financial transparency

Predictor	Estimate	Standard error	95% confidence interval		t	P	Standard estimate	95% confidence interval	
			Terminal inf	Superior				Terminal inf	Superior
Originally ordered	0.7750	0.0908	0.59642	0.954	8.53	<.001			
IND_SCORE	0.1270	0.0486	0.03151	0.222	2.62	.009	0.1547	0.03839	0.271
COMP_SCORE	0.1180	0.0487	0.02223	0.214	2.42	.016	0.1429	0.02692	0.259
ASS_SCORE	0.0988	0.0468	0.00677	0.191	2.11	.035	0.1203	0.00825	0.232
CONS_SCORE	0.1658	0.0469	0.07355	0.258	3.53	<.001	0.1978	0.08777	0.308
RIS_SCORE	0.0795	0.0498	-0.01842	0.177	1.60	.111	0.0946	-0.02191	0.211
SUI_SCORE	0.1690	0.0492	0.07224	0.266	3.44	<.001	0.2066	0.08832	0.325

The results of the multiple regression show that the different dimensions of internal audit do not all exert the same influence on the financial transparency of public organizations. The model constant is positive and statistically significant ($\beta = 0.775$; $t = 8.53$; $p < 0.001$), indicating a significant baseline level of financial transparency in the absence of the explanatory variables.

Among the independent variables, follow-up on recommendations had the strongest positive influence on financial transparency (standardized $\beta = 0.207$; $\beta = 0.169$; $t = 3.44$; $p < 0.001$). This was followed by consulting engagements (standardized $\beta = 0.198$; $\beta = 0.166$; $t = 3.53$; $p < 0.001$), demonstrating that the effective implementation of audit recommendations and consulting activities both contribute significantly to improved financial transparency.

Internal audit independence also has a significant positive influence on financial transparency (standardized $\beta = 0.155$; $\beta = 0.127$; $t = 2.62$; $p = 0.009$). Similarly, auditor competence has a significant positive effect (standardized $\beta = 0.143$; $\beta = 0.118$; $t = 2.42$; $p = 0.016$), as do assurance engagements (standardized $\beta = 0.120$; $\beta = 0.099$; $t = 2.11$; $p = 0.035$). These results indicate that strengthening professional competence, auditor independence, and assurance engagements promotes higher quality financial reporting and greater transparency in operations.

In contrast, risk management did not have a statistically significant effect on financial transparency (standardized $\beta = 0.095$; $\beta = 0.080$; $t = 1.60$; $p = 0.111$). Although its coefficient is positive, its significance level is above the 5% threshold, which does not allow us to conclude that this dimension has a significant influence on the estimated model.

Overall, these results show that five of the six dimensions of internal audit positively and significantly influence the financial transparency of public organizations. The most influential dimensions are follow-up on recommendations and advisory engagements, followed by internal audit independence, auditor competence, and assurance engagements. These results largely confirm hypothesis H1, which states that internal audit contributes positively and significantly to strengthening the financial transparency of public organizations in the Democratic Republic of Congo. However, since the effect of risk management is not statistically significant, this dimension does not receive empirical support within the framework of this model.

4.4.2. Influence of internal audit on accountability

This second multiple regression analysis aims to assess the influence of different dimensions of internal audit on the accountability (RED_SCORE) of public organizations in the Democratic Republic of Congo. It is assumed that internal audit has a positive and significant effect on the accountability of public managers.

The dependent variable selected is accountability (RED_SCORE), while the independent variables are internal audit independence (IND_SCORE), auditor competence (COMP_SCORE), assurance engagements (ASS_SCORE), consulting engagements (CONS_SCORE), risk management (RIS_SCORE) and follow-up to recommendations (SUI_SCORE).

The regression model is expressed as follows:

$$RED = \beta_0 + \beta_1 IND + \beta_2 COMP + \beta_3 ASS + \beta_4 CONS + \beta_5 RIS + \beta_6 SUI + \varepsilon$$

The results will be interpreted using regression coefficients (β), t-values, p-values, the coefficient of determination (R^2), the adjusted R^2 , and the F-statistic. An influence will be considered statistically significant when $p < 0.05$. This analysis will determine which dimensions of internal audit contribute most to strengthening accountability.

Table 8. Overall quality of the regression model explaining accountability

			General model test			
Model	R	R ²	F	ddl1	ddl2	p
1	0.813	0.660	122	6	377	<.001

The results of the overall model test show that the multiple regression model demonstrates a very good fit. The multiple correlation coefficient ($R = 0.813$) indicates a strong positive relationship between the dimensions of internal audit and the accountability of public organizations.

The coefficient of determination ($R^2 = 0.660$) indicates that 66.0% of the variation in accountability is explained by the six dimensions of internal audit included in the model: internal audit independence, auditor competence, assurance engagements, consulting engagements, risk management, and follow-up on recommendations. The remaining 34.0% is attributable to other variables not considered in this study, as well as to random errors.

Furthermore, Fisher's exact statistic ($F = 122$; $df1 = 6$; $df2 = 377$; $p < 0.001$) is highly significant. This result shows that the regression model is generally valid and that the dimensions of internal audit, considered simultaneously, have a significant influence on accountability.

These results confirm the good quality of the estimated model and show that internal audit is an important determinant of accountability within public organizations. They thus provide initial empirical support for the finding that internal audit has a positive and significant effect on the accountability of public managers in the Democratic Republic of Congo.

Table 9. ANOVA test of the effects of internal audit dimensions on accountability

	Sum of squares	ddl	Average squares	F	p
IND_SCORE	0.344	1	0.3440	3.48	.063
COMP_SCORE	0.492	1	0.4922	4.97	.026
ASS_SCORE	0.715	1	0.7154	7.23	.007
CONS_SCORE	0.222	1	0.2220	2.24	.135
RIS_SCORE	1.917	1	1.9166	19.36	<.001
SUI_SCORE	0.191	1	0.1914	1.93	.165
Residues	37.315	377	0.0990		

The results of the ANOVA test show that certain dimensions of internal audit have a statistically significant influence on the accountability of public organizations. More specifically, auditor competence ($F = 4.97$; $p = 0.026$), assurance engagements ($F = 7.23$; $p = 0.007$), and especially risk management ($F = 19.36$; $p < 0.001$) show positive and statistically significant effects. Among these dimensions, risk management appears to be the factor with the most significant influence on accountability.

On the other hand, the independence of internal audit ($F = 3.48$; $p = 0.063$), consulting missions ($F = 2.24$; $p = 0.135$) and the follow-up of recommendations ($F = 1.93$; $p = 0.165$) do not show a statistically significant effect, their probabilities being greater than the threshold of 5%.

Overall, these results indicate that the accountability of public organizations is primarily strengthened by the competence of auditors, assurance engagements, and risk management.

Table 10. Regression coefficients of the model explaining accountability

			95% confidence interval					95% confidence interval	
Predictor	Estimate	Standard error	Terminal inf	Superior	t	p	Standard estimate	Terminal inf	Superior
Originally ordered	0.8862	0.0962	0.69702	1.075	9.21	<.001			
IND_SCORE	0.0959	0.0515	-0.00526	0.197	1.86	.063	0.1185	-0.00649	0.243
COMP_SCORE	0.1151	0.0516	0.01361	0.217	2.23	.026	0.1413	0.01671	0.266
ASS_SCORE	0.1333	0.0496	0.03580	0.231	2.69	.007	0.1646	0.04422	0.285
CONS_SCORE	0.0744	0.0497	-0.02330	0.172	1.50	.135	0.0901	-0.02819	0.208
RIS_SCORE	0.2322	0.0528	0.12843	0.336	4.40	<.001	0.2801	0.15492	0.405
SUI_SCORE	0.0725	0.0521	-0.03000	0.175	1.39	.165	0.0899	-0.03718	0.217

The results of the multiple regression show that the dimensions of internal audit do not all exert the same influence on the accountability of public organizations. The model constant is positive and statistically significant ($\beta = 0.886$; $t = 9.21$; $p < 0.001$), indicating a significant baseline level of accountability.

Among the explanatory variables, risk management had the strongest positive influence on accountability (standardized $\beta = 0.280$; $\beta = 0.232$; $t = 4.40$; $p < 0.001$). This was followed by assurance engagements (standardized $\beta = 0.165$; $\beta = 0.133$; $t = 2.69$; $p = 0.007$) and auditor competence (standardized $\beta = 0.141$; $\beta = 0.115$; $t = 2.23$; $p = 0.026$), whose effects were also positive and statistically significant. These results show that strengthening professional skills, assurance engagements, and risk management practices significantly contributes to improving the accountability of public managers.

On the other hand, the independence of internal audit (standardized $\beta = 0.119$; $\beta = 0.096$; $t = 1.86$; $p = 0.063$), consulting missions (standardized $\beta = 0.090$; $\beta = 0.074$; $t = 1.50$; $p = 0.135$) and follow-up of recommendations (standardized $\beta = 0.090$; $\beta = 0.073$; $t = 1.39$; $p = 0.165$) do not show a statistically significant effect, their probabilities being greater than the 5% threshold.

Overall, these results show that accountability is primarily explained by risk management, followed by assurance engagements and auditor competence. The other dimensions of internal audit have a positive, but not statistically significant, effect.

4.4.3. Influence of internal audit on organizational performance

This third multiple regression analysis aims to evaluate the influence of the different dimensions of internal audit on the organizational performance (PERF_SCORE) of public organizations in the Democratic Republic of Congo.

The dependent variable selected is organizational performance (PERF_SCORE), while the independent variables are the independence of internal audit (IND_SCORE), the competence of auditors (COMP_SCORE), assurance missions (ASS_SCORE), consulting missions (CONS_SCORE), risk management (RIS_SCORE) and the follow-up of recommendations (SUI_SCORE).

The regression model is formulated as follows:

$$PERF = \beta_0 + \beta_1 IND + \beta_2 COMP + \beta_3 ASS + \beta_4 CONS + \beta_5 RIS + \beta_6 SUI + \varepsilon$$

The results will be interpreted from the regression coefficients (β), t-values, p-values, coefficient of determination (R^2) and the F-statistic. A dimension will be considered to have a significant influence when $p < 0.05$.

Table 11. Overall quality of the regression model explaining organizational performance

			General model test			
Model	R	R ²	F	ddl1	ddl2	P
1	0.832	0.692	141	6	377	<.001

The results of the overall model test indicate that the multiple regression model demonstrates a very good fit. The multiple correlation coefficient ($R = 0.832$) reflects a strong positive relationship between the different dimensions of internal audit and the organizational performance of public organizations.

The coefficient of determination ($R^2 = 0.692$) shows that 69.2% of the variation in organizational performance is explained by the six dimensions of internal audit included in the model: internal audit independence, auditor competence, assurance engagements, consulting engagements, risk management, and follow-up on recommendations. The remaining 30.8% is explained by other factors not considered in this study, as well as by random errors.

Furthermore, Fisher's exact statistic ($F = 141$; $df1 = 6$; $df2 = 377$; $p < 0.001$) is highly significant, confirming that the regression model is generally valid. The explanatory variables, considered simultaneously, therefore exert a significant influence on organizational performance.

These results demonstrate that internal auditing is a major determinant of the organizational performance of public organizations. They thus provide strong empirical support for the finding that internal auditing positively and significantly improves organizational performance in the Democratic Republic of Congo.

Table 12. ANOVA test of the effects of internal audit dimensions on organizational performance

	Sum of squares	ddl	Average squares	F	p
IND_SCORE	0.610	1	0.610	5.90	.016
COMP_SCORE	0.136	1	0.136	1.32	.252
ASS_SCORE	0.448	1	0.448	4.34	.038
CONS_SCORE	0.549	1	0.549	5.31	.022
RIS_SCORE	1.636	1	1.636	15.85	<.001
SUI_SCORE	1.024	1	1.024	9.92	.002
Residues	38,920	377	0.103		

The results of the ANOVA test show that several dimensions of internal audit have a statistically significant influence on the organizational performance of public organizations. More specifically, the independence of internal audit ($F = 5.90$; $p = 0.016$), assurance engagements ($F = 4.34$; $p = 0.038$), consulting engagements ($F = 5.31$; $p = 0.022$), risk management ($F = 15.85$; $p < 0.001$), and follow-up on recommendations ($F = 9.92$; $p = 0.002$) all show positive and statistically significant effects. Among these dimensions, risk management appears to be the most influential factor, followed by follow-up on recommendations.

In contrast, auditor competence did not have a statistically significant effect on organizational performance ($F = 1.32$; $p = 0.252$), with the observed probability exceeding the 5% significance threshold. Therefore, this dimension was not a significant determinant of organizational performance in the estimated model.

Overall, these results show that organizational performance is primarily explained by the independence of internal audit, assurance engagements, consulting engagements, risk management, and follow-up on recommendations. They reinforce the findings of the overall regression model and provide important empirical support for the idea that internal audit contributes positively and significantly to improving the organizational performance of public organizations in the Democratic Republic of Congo.

Table 13. Regression coefficients of the model explaining organizational performance

Predictor	Estimate	Standard error	95% confidence interval		t	p	Standard estimate	95% confidence interval	
			Terminal inf	Superior				Terminal inf	Superior
Originally ordered	0.6775	0.0983	0.48429	0.871	6.89	<.001			
IND_SCORE	0.1277	0.0525	0.02437	0.231	2.43	.016	0.1472	0.02809	0.266
COMP_SCORE	0.0605	0.0527	-0.04313	0.164	1.15	.252	0.0693	-0.04941	0.188
ASS_SCORE	0.1055	0.0506	0.00594	0.205	2.08	.038	0.1216	0.00685	0.236
CONS_SCORE	0.1170	0.0508	0.01721	0.217	2.31	.022	0.1321	0.01943	0.245
RIS_SCORE	0.2145	0.0539	0.10858	0.320	3.98	<.001	0.2415	0.12221	0.361
SUI_SCORE	0.1676	0.0532	0.06295	0.272	3.15	.002	0.1939	0.07281	0.315

The results of the multiple regression show that the dimensions of internal audit exert differentiated influences on the organizational performance of public organizations. The model constant is positive and statistically significant ($\beta = 0.678$; $t = 6.89$; $p < 0.001$), indicating a significant baseline level of organizational performance.

Among the explanatory variables, risk management has the most significant positive effect on organizational performance (standardized $\beta = 0.242$; $\beta = 0.215$; $t = 3.98$; $p < 0.001$). This is followed by the monitoring of recommendations (standardized $\beta = 0.194$; $\beta = 0.168$; $t = 3.15$; $p = 0.002$), the independence of internal audit (standardized $\beta = 0.147$; $\beta = 0.128$; $t = 2.43$; $p = 0.016$), consulting engagements (standardized $\beta = 0.132$; $\beta = 0.117$; $t = 2.31$; $p = 0.022$), and assurance engagements (standardized $\beta = 0.122$; $\beta = 0.106$; $t = 2.08$; $p = 0.038$). These dimensions show positive and statistically significant effects, indicating that they contribute to improved organizational performance.

In contrast, auditor competence did not have a statistically significant effect (standardized $\beta = 0.069$; $\beta = 0.061$; $t = 1.15$; $p = 0.252$). Although its coefficient was positive, its probability exceeded the 5% threshold, which prevents us from concluding that it had a significant influence on organizational performance in the estimated model.

Overall, these results show that organizational performance is primarily explained by risk management, followed by the implementation of recommendations, the independence of internal audit, consulting engagements, and assurance engagements. These dimensions constitute the main levers through which internal audit contributes to improving the performance of public organizations. Consequently, six dimensions of internal audit exert a positive and significant influence on organizational performance, while auditor competence does not have a statistically significant effect.

5. Discussion of results

The discussion of the results aims to interpret the main findings in light of the scientific literature and the theoretical frameworks used in this research. It allows us to identify areas of convergence and divergence with previous work, to explain the observed results, and to highlight the scientific and managerial contributions of the study.

5.1. Convergences with literature

The results obtained generally confirm the main findings of the literature on internal audit and financial governance. Regression analyses show that internal audit has a positive and significant influence on the financial transparency, accountability, and

organizational performance of public organizations. These results corroborate Sawyer's work, which states that internal audit is an essential mechanism for improving governance by strengthening internal control, risk management, and the quality of financial information [14].

The results also align with those of Cohen and Sayag, who demonstrate that organizations with a high-performing internal audit function exhibit greater organizational efficiency through improved risk management processes and control [26]. Similarly, Pickett emphasizes that assurance and consulting engagements contribute directly to value creation and the continuous improvement of organizational performance [16].

Regarding financial transparency, the results are consistent with the findings of Mihret and Yismaw and those of the OECD, which show that effective internal auditing improves the quality of financial information, strengthens internal control and promotes greater transparency in the management of public resources [27], [1].

In terms of accountability, the findings corroborate the work of Arena and Azzone, which highlights the role of internal audit in strengthening the responsibility of public managers and in monitoring audit recommendations [28]. They also align with the recommendations of the Institute of Internal Auditors (IIA), according to which internal audit promotes regulatory compliance and develops a culture of accountability within organizations [15].

5.2. Differences with the literature

Despite these numerous points of convergence, some results differ from observations reported in previous research.

The first discrepancy concerns risk management, which does not have a significant influence on financial transparency. This finding contrasts with the conclusions of Moeller and the Institute of Internal Auditors, who consider risk management a determining factor in the quality of financial information [29], [15]. This difference could be explained by the institutional context of Congolese public organizations, where risk management mechanisms are still being consolidated and are not always fully integrated into financial reporting systems.

A second point of divergence concerns the competence of auditors, which has no significant effect on organizational performance. This observation differs from the work of Cohen and Sayag, according to whom auditor competence directly influences organizational performance [26]. In the context of this study, it is possible that the professional competence of auditors produces its effects primarily through other mechanisms, such as assurance engagements or risk management, rather than directly on organizational performance.

Finally, certain dimensions of internal audit have different effects depending on the component of financial governance considered. This situation confirms that financial governance is a multidimensional construct whose determinants can vary according to organizational contexts.

Conclusion

This study aimed to analyze the impact of internal auditing on the financial governance of public organizations in the Democratic Republic of Congo. Based on a quantitative approach conducted with 384 respondents, the results show that internal auditing is a key lever for improving financial transparency, the accountability of public managers, and organizational performance.

Statistical analyses confirmed the reliability and validity of the measurement instruments, as well as the relevance of the chosen conceptual model. The results of the multiple regressions reveal that several dimensions of internal audit, including internal audit independence, assurance engagements, advisory engagements, risk management, and follow-up on recommendations, exert a positive and significant influence on the various components of financial governance. Conversely, some dimensions exhibit differentiated effects depending on the dependent variables, highlighting the multidimensional nature of financial governance.

These results broadly confirm previous work on the strategic role of internal audit in strengthening good governance and contribute to enriching the scientific literature by providing empirical evidence from the context of Congolese public organizations. They also underscore the need for public decision-makers to strengthen internal audit mechanisms in order to

improve the quality of financial management, enhance managerial accountability, and increase the performance of public institutions.

However, this research has certain limitations, notably its cross-sectional nature and the use of perceptual data. Future research could incorporate longitudinal analyses, examine the role of mediating or moderating variables, such as organizational culture, leadership, or digital transformation, and conduct comparisons between the public and private sectors to deepen our understanding of the mechanisms linking internal audit to financial governance. Thus, strengthening the internal audit function appears to be a major challenge for promoting more transparent, accountable, and performance-oriented public governance.

REFERENCES

- [1] Organization for Economic Co-operation and Development (OECD), OECD Public Governance Review 2024. Paris, France: OECD Publishing, 2024.
- [2] World Bank, Worldwide Governance Indicators 2024. Washington, DC, USA: World Bank, 2024.
- [3] Institute of Internal Auditors (IIA), Global Internal Audit Standards. Lake Mary, FL, USA: Institute of Internal Auditors, 2024.
- [4] C. Hood, "A Public Management for All Seasons?," *Public Administration*, vol. 69, no. 1, pp. 3–19, 1991.
- [5] C. Pollitt and G. Bouckaert, *Public Management Reform: A Comparative Analysis—Into the Age of Austerity*, 4th ed. Oxford, UK: Oxford University Press, 2017.
- [6] International Federation of Accountants (IFAC), *Handbook of International Quality Management, Auditing, Review, Other Assurance and Related Services Pronouncements*. New York, NY, USA: IFAC, 2023.
- [7] African Development Bank, *African Economic Outlook 2024*. Abidjan, Côte d'Ivoire: AfDB, 2024.
- [8] Ministry of Finance of the Democratic Republic of Congo, *Report on the reform of public financial management*. Kinshasa, DRC, 2024.
- [9] Court of Auditors of the Democratic Republic of Congo, *Annual Report on the Control of Public Finances*. Kinshasa, DRC, 2023.
- [10] Court of Auditors of the Democratic Republic of Congo, *Annual Report on the Control of Public Finances*. Kinshasa, DRC, 2024.
- [11] General Inspectorate of Finance, *Annual Activity Report*. Kinshasa, DRC, 2024.
- [12] LB Sawyer, *Sawyer's Internal Auditing*, 5th ed. Altamonte Springs, FL, USA: Institute of Internal Auditors, 1995.
- [13] AD Chambers and G. Rand, *The Operational Auditing Handbook*, 3rd ed. Hoboken, NJ, USA: John Wiley & Sons, 2015.
- [14] LB Sawyer, *Sawyer's Internal Auditing*, 5th ed. Altamonte Springs, FL, USA: Institute of Internal Auditors, 1995.
- [15] Institute of Internal Auditors (IIA), *Global Internal Audit Standards*. Lake Mary, FL, USA: Institute of Internal Auditors, 2024.
- [16] KHS Pickett, *The Essential Handbook of Internal Auditing*, 4th ed. Hoboken, NJ, USA: John Wiley & Sons, 2020.
- [17] M. Bovens, "Analysing and Assessing Accountability: A Conceptual Framework," *European Law Journal*, vol. 13, no. 4, pp. 447–468, 2007.
- [18] RS Kaplan and DP Norton, *The Balanced Scorecard: Translating Strategy into Action*. Boston, MA, USA: Harvard Business School Press, 1996.
- [19] MC Jensen and WH Meckling, "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics*, vol. 3, no. 4, pp. 305–360, 1976.

-
- [20]EF Fama and MC Jensen, "Separation of Ownership and Control," *Journal of Law and Economics*, vol. 26, no. 2, pp. 301–325, 1983.
- [21]G. Charreaux, *Corporate Governance: Theories and Facts*. Paris, France: Economica, 1997.
- [22]JW Creswell and JD Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 6th ed. Thousand Oaks, CA, USA: Sage Publications, 2023.
- [23]JF Hair, WC Black, BJ Babin, RE Anderson, and KD Multon, *Multivariate Data Analysis*, 9th ed. Boston, MA, USA: Cengage Learning, 2022.
- [24]WG Cochran, *Sampling Techniques*, 3rd ed. New York, NY, USA: John Wiley & Sons, 1977.
- [25]HF Kaiser, "An Index of Factorial Simplicity," *Psychometrika*, vol. 39, no. 1, pp. 31–36, 1974.
- [26]A. Cohen and G. Sayag, "The Effectiveness of Internal Auditing: An Empirical Examination of its Determinants in Israeli Organizations," *Australian Accounting Review*, vol. 20, no. 3, pp. 296–307, 2010.
- [27]DG Mihret and AW Yismaw, "Internal Audit Effectiveness: An Ethiopian Public Sector Case Study," *Managerial Auditing Journal*, vol. 22, no. 5, pp. 470–484, 2007.
- [28]M. Arena and G. Azzone, "Identifying Organizational Drivers of Internal Audit Effectiveness," *International Journal of Auditing*, vol. 13, no. 1, pp. 43–60, 2009.
- [29]RR Moeller, *Brink's Modern Internal Auditing*, 9th ed. Hoboken, NJ, USA: John Wiley & Sons, 2022.