

Determinants of Ethical Governance in the Moroccan Public Sector: A PLS-SEM Analysis of Internal Auditors' Perceptions

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Abstract:

In the context of Moroccan public administration reforms aimed at moralizing public life, internal auditing has become a vital mechanism for ensuring transparency. This study investigates the perceived influence of three core ethical dimensions—integrity, accountability, and standards management—on the ethical governance of public entities. Adopting a quantitative approach, the research is based on a restricted sample of 69 internal auditors ($N = 69$) specifically located in the Guelmim-Oued Noun region, which limits the generalizability of the findings. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The structural model explains 26.6% of the variance in ethical governance ($R^2 = 0.266$). The empirical results demonstrate that accountability has a strong positive and statistically significant influence ($\beta = 0.382, t = 3.240, p < 0.01$). Similarly, standards management exerts a significant positive impact ($\beta = 0.215, t = 1.695, p < 0.05$). Conversely, integrity, perceived as a values-based culture, shows no significant direct impact on ethical governance in this regional context ($\beta = 0.047, t = 0.348, p > 0.10$). These findings suggest that formal accountability mechanisms and regulatory compliance currently prevail over purely value-based approaches in the studied framework. Managerially, the study recommends strengthening the independence of internal audit to better institutionalize ethical practices.

Keywords: Ethical governance, internal audit, integrity, accountability, standards management, public sector, Morocco, PLS-SEM.

JEL Classification: M42; H83; D73; L25.

Paper type: Empirical Research

1. Introduction

In the contemporary global landscape, public organizations face unprecedented pressure from civil society and international monitoring bodies to uphold stringent ethical standards. A series of high-profile corruption scandals has underscored the fragility of public trust, leading to a demand for "Ethical Governance" that transcends mere administrative efficiency. Ethical governance is defined as the systematic integration of moral values—such as honesty, openness, and responsibility—into the management and decision-making processes of the public sector. It is no longer viewed as an optional moral choice but as a strategic necessity for sustainable governance and the preservation of the social contract. Conversely, a deficit in integrity erodes institutional legitimacy, diminishes the quality of public policies, and fosters an environment where corruption can flourish as a systemic malfunction.

Historically, the concept of governance has evolved from a simple "government" model to a complex negotiation process between state actors and civil society. International organizations, such as the OECD and the World Bank, have prescribed "Good Governance" as a normative framework essential for economic development and social justice. This framework rests on seven indispensable pillars: the rule of law, the absence of corruption, equity, responsibility, efficiency, transparency, and participation. In developing economies, the implementation of these principles often faces structural obstacles, such as administrative complexity, limited access to information, and the persistence of favoritism.

Morocco has proactively responded to these challenges through profound legal and structural transformations. Influenced by globalization and the global economic crises of the late 2000s, the Moroccan public power committed to institutionalizing international standards for public management. The 2011 Moroccan Constitution represents a philosophical and legal cornerstone of this reform, formally establishing "Good Governance" as a guiding principle for the state. Specifically, Article 1 of the Constitution institutionalized the correlation between the exercise of responsibility and the requirement of accountability (*reddition des comptes*). Furthermore, the constitutional framework mandates that public services be subject to standards of quality, transparency, and impartiality, requiring public officials to perform their duties in the sole interest of the general public.

Within this reformed administrative landscape, the internal audit function has emerged as a pivotal mechanism for risk management and oversight. No longer perceived solely as a restrictive control measure, internal auditing is now defined as an independent and objective assurance and consulting activity designed to add value and improve an organization's operations. By evaluating the effectiveness of internal controls and identifying ethical risks, the internal audit function serves as a strategic ally to management, helping public entities achieve their objectives through a systematic and methodical approach. In the Moroccan public sector, the rise of the internal audit culture was further accelerated by the 2008 Code of Good Practices for Governance in Public Establishments and Law No. 130-13 relating to the Finance Law, which introduced performance-based budgeting and strengthened transparency requirements. Internal audit functions increasingly serve as the essential junction point between the institutionalization of internal controls and the broader improvement of governance efficiency, particularly in contexts where transparency is critical for organizational legitimacy (Obeid, 2023).

Despite the recognized importance of ethics and auditing, a significant "implementation gap" persists. Critics have identified several dysfunctions in the Moroccan context, including a lack of complementarity between control bodies and the relative weakness of accountability mechanisms in certain territorial administrations. Moreover, while theoretical frameworks for "Good Governance" abound, there is a distinct lack of empirical evidence regarding how these concepts are operationalized on the ground. Specifically, research remains scarce concerning

the perceptions of internal auditors—the very professionals tasked with identifying ethical breaches—regarding the actual determinants of ethical governance. Perception is a crucial variable here, as it reflects the process by which individuals interpret their environment to construct a coherent image of organizational reality.

This study seeks to fill this scientific void by analyzing the perceived impact of three core ethical dimensions -*integrity, accountability, and standards management* -on the ethical governance of public entities. These dimensions are derived from the "Ethical Governance Audit" framework (2001) of the Improvement and Development Agency, which categorizes ethical competence into: (i) Integrity, associated with vision, communication, and leadership; (ii) Accountability, linked to organizational management and objective control; and (iii) Standards Management, defined by the integration of norms and professional training. By investigating these variables, the research moves beyond a purely descriptive approach to examine the causal relationships between ethical perceptions and the institutionalization of moral values.

This study offers a distinct twofold contribution to the existing literature on public management and oversight.

Theoretically, it proposes an integrative model that bridges the gap between value-based "integrity" approaches (focused on internalizing moral culture) and mechanism-based "compliance" approaches (focused on formal rules and sanctions). While the literature often debates which approach is more effective, this research provides a unified framework to analyze how these two pillars interact within a public sector context to strengthen—or weaken—perceived governance.

Empirically, this research provides rare, localized data from the Moroccan public sector, with a specific focus on the Guelmim–Oued Noun region. This regional focus is particularly relevant as territorial administrations often face unique challenges in implementing centralized reforms. By utilizing Partial Least Squares Structural Equation Modeling (PLS-SEM), the study offers predictive insights into which institutional factors most effectively strengthen ethical governance. This methodology is highly appropriate for this research because it allows for the analysis of complex relationships between latent (non-observable) variables even with a restricted sample ($N = 69$), a common constraint when studying specialized professional groups like internal auditors.

The remainder of this article is organized as follows. Section 2 provides a comprehensive literature review, detailing the conceptual foundations of ethical governance and internal audit to establish the research hypotheses. Section 3 describes the methodology, including the regional context, the snow-ball sampling technique, and the PLS-SEM analytical procedure. Section 4 presents the empirical results, distinguishing between the evaluation of the measurement model and the structural model. Finally, Section 5 discusses the findings in light of the Moroccan administrative context, offering theoretical implications, managerial recommendations, and identifying avenues for future research.

2. Literature Review

2.1. Ethical governance in the public sector

Ethical governance involves applying moral principles and appropriate standards of conduct in the decision-making and management processes of organisations. In the public sector, this means institutions and public officials should act with honesty, transparency, as well as responsibility, and in the public interest—beyond mere compliance with laws. *Huberts (2018)* stresses that governance ethics and integrity go beyond just being honest or not being corrupt. They also include following the rules, making fair decisions, and promoting a culture of honesty and public service. The goal of ethical governance is to stop people from misusing their power,

make sure that public resources are used fairly and efficiently, and build trust in the government. It is directly related to the ideas of being accountable to the people and good government.

The literature and international organizations agree on a few basic principles of ethical governance: (i) the integrity of public officials and institutions, which means that they follow ethical values (honesty, impartiality, loyalty) and make sure that what they say matches what they do; (ii) accountability, which means that public officials and managers must explain and justify their decisions, take responsibility for their actions, and face the consequences if they fail; and (iii) standards and compliance management, which means that they must strictly follow rules, laws, and procedures. You can make your organization more honest by setting clear rules of behaviour, giving ethics training, making sure leaders are good role models, and creating a culture that values ethics (Huberts, 2018). Parliamentary oversight and audit mechanisms, open access to financial information, and punishments for immoral behavior are all ways to hold people accountable (Organisation for Economic Co-operation and Development 2020). In general, strong accountability means less chance of wrongdoing and better performance by the public (Organisation for Economic Co-operation and Development 2020). Finally, standards and compliance management includes the ability to set up internal controls, do compliance checks, set up channels for whistleblowers, and encourage a culture of respect for rules. Strict compliance facilitates to keep people from acting unfairly and makes sure everyone is treated the same, which makes public administration more fair and honest.

Recent research underscores the multi-faceted nature of the foundations of public legitimacy. For instance, De Boer (2023) proposes a conceptual framework for voluntary accountability in the public sector, observing that public entities are progressively establishing voluntary accountability arrangements with citizens alongside legal obligations to enhance legitimacy and trust—such as participatory budgets and extra-financial reporting. Similarly, Makanga et al. (2026) demonstrate, within the context of local administrations in Uganda, that an ethical work environment prioritizing adherence to laws, codes, and internal regulations correlates with enhanced perceptions of public accountability. These findings suggest that when employees operate in an environment where compliance and responsibility are the norm, they are more likely to act ethically, resulting in more accurate public reporting.

The scholarly discourse on ethical governance is characterized by a fundamental tension between two primary philosophies of behavioral regulation: the compliance-based approach (rule-based) and the integrity-based approach (values-based) (Paine, 1994; Huberts, 2018). The compliance model, rooted in deterrence theory, envisions public agents as rational maximizers of self-interest who respond primarily to the threat of detection and the imposition of sanctions (Paine, 1994). Consequently, this approach emphasizes the institutionalization of strict rules, increased surveillance, and formal penalties to prevent misconduct (Paine, 1994; Stöber et al., 2019). In contrast, the integrity-based approach—often termed the "ethics of virtue"—focuses on the concept of self-governance and the internalization of moral values such as honesty and public service motivation (Paine, 1994; Huberts, 2018; Kaptein, 2019). While international normative frameworks often prioritize integrity as the bedrock of public trust, scholarly literature suggests that a purely value-based culture may remain symbolic or "declarative" if it lacks the mechanical support of tangible institutional oversight (Paine, 1994; Gilbert et al., 2011; Huberts, 2018). The articulation of these two approaches appears essential: without personal integrity, rule enforcement can become bureaucratic or easily circumvented; conversely, without controls and sanctions, value-based ethics can remain ineffective (Paine, 1994; Bovens, 2010). Academic debate thus sways toward an integrative model supported by a robust "ethics infrastructure" (OECD, 2020; Gilbert et al., 2011; Huberts, 2018). Within this framework, accountability and standards management serve as the necessary "mechanisms of translation" required to turn individual moral intentions into institutionalized practices (Bovens, 2010; Gilbert et al., 2011; De Boer, 2023). Ultimately, the most ethically high-performing

organizations are those that manage to cultivate a strong internal moral environment while simultaneously ensuring high transparency and scrupulous respect for conduct standards (Fleming & McNamee, 2005; Makanga et al., 2026)

2.2. Internal audit, integrity, and accountability

Internal audit is very important for promoting ethics and good governance in businesses, especially in the public sector. The Institute of Internal Auditors (IIA) says that internal audit is an independent body within businesses that helps leaders manage risk by checking how well internal controls work, finding problems, and giving advice on how to deal with ethical risks. The Institute of Internal Auditors (IIA) claims that internal auditing is an independent, objective process that gives you peace of mind about how much control you have over your operations, suggests ways to improve, and helps you make money (Aikins 2013).

Internal audit is a useful way for public organizations to see how well their systems for managing risks and controls work. It looks at a number of elements, such as abiding by the rules, using resources wisely, stopping fraud, and following moral standards. The literature focuses on the ethical competence of internal auditors. ATEUMO, YEPGNOU, and TONMO (2022) admits that internal auditors should have a lot of knowledge about ethics and behave responsibly to help their organisations have an ethical culture. People may see them as protectors of values and rules because they find ethical violations and suggest ways to fix them through audit missions.

The internal audit code of ethics also requires each auditor to demonstrate integrity, objectivity, confidentiality, and competence (Institute of Internal Auditors 2024). By practicing these values and reporting breaches, internal audit helps establish a climate of trust and ethics. Furthermore, a well-established internal audit function contributes to institutionalizing accountability by imposing regular reviews and ensuring independent reporting to governance bodies (audit committee, top management, etc.). Some authors note that the presence of effective internal audit reassures external stakeholders that the organization is controlled internally, thereby potentially enhancing public trust.

Empirical work indicates that internal audit has a positive impact on governance. Studies conducted in Indonesian local governments show that the more independent and effective internal audit is, the more transparent and reliable public financial statements become (Shidqi and Arfiansyah 2025). In the same vein, Pramiudi 2024 claim that improving internal audit activities is closely linked to getting better opinions from external auditors on local government accounts. This means that the financial governance is getting tougher.

Pramiudi 2024 notes that anti-corruption efforts are not very effective as there is not enough follow-up on audit recommendations. They say that managers need to do more to support the implementation of audit findings. Shidqi and Arfiansyah 2025 also show that a good public internal audit can help cut down on corrupt practices and make government financial reports more trustworthy. European studies show that internal audit helps modernize public management by spreading good ways of control and promoting a culture of evaluation at all levels—local, regional, and national (Nerantzidis et al. 2022).

Overall, the literature suggests that internal audit can serve as a lever for ethical governance through several mechanisms: (1) assessing and strengthening integrity-related controls (codes of conduct, anti-corruption devices, etc.); (2) improving accountability through regular audits and reporting to oversight authorities; (3) monitoring compliance with standards (financial, legal, and ethical) and reporting deviations; and (4) advising management on ways to improve ethics and performance (Organisation for Economic Co-operation and Development 2020; Ogundele and Nzama-Sithole 2026; Eulerich, Wagener, and Wood 2022). However, internal audit effectiveness depends on structural conditions: independence (absence of political or hierarchical pressures), adequate resources and skills (sufficient staffing, training in fraud and

ethics auditing), and management support (implementation of recommendations). Without these conditions, internal audit's impact may remain limited—or merely symbolic. The emphasis on structural conditions for effectiveness is consistent with empirical evidence from the Saudi public sector (Alzeban, 2014), which identifies management support as the primary driver of internal audit effectiveness, directly influencing resourcing, auditor competence, and departmental independence.

2.3. Research hypotheses

To establish the research hypotheses, this study strategically mobilizes findings from diverse institutional environments, notably the banking sector and higher education institutions (HEIs) in Indonesia, justifying their inclusion through a rigorous analysis of structural and functional equivalence. The relevance of these intersectoral borrowings rests on a shared fiduciary duty and the challenge of information asymmetry, as the work of *Yazid et al. (2025)* in the banking sector emphasizes that effective governance and internal audit effectiveness are crucial for mitigating fraud and maintaining public trust.

This mirrors the Moroccan public sector, where internal auditing serves as a control mechanism under Agency Theory to reduce information asymmetry between the administration and citizens, given that both sectors manage public interest resources and remain equally vulnerable to reputational damage stemming from unethical behavior

Furthermore, the universality of a quality culture in public service is evidenced by the second reference to *Yazid et al. (2025)* concerning Indonesian HEIs, which provides a benchmark for how quality culture mediates the relationship between organizational commitment and performance. This directly aligns with the Moroccan context, where the 2011 Constitution and the 2016 Organic Law of Finance mandate a shift toward performance-based management, a universal challenge that makes HEI-based governance models highly applicable to Moroccan territorial entities.

A critical functional convergence exists regarding the role of the internal auditor, who is consistently identified as the primary unit of analysis and the "guardian of standards" across these diverse environments. This study explicitly integrates the framework provided by the Ethical Governance Audit report, which was designed as a practical tool to help public authorities evaluate strengths and weaknesses, build a "bond of trust" with their communities, and integrate ethical frameworks into organizational operations

The Ethical Governance Audit report establishes that effective democratic government depends on the Escape Requirement of institutional trust, and it specifically provides a toolkit for assessing ethical performance through three core competencies: integrity, accountability, and standards management.

By adopting this report's tripartite structure, this research creates a theoretical bridge toward investigating how internal auditors perceive these specific dimensions as determinants of ethical governance. Drawing on the definitions provided in the Ethical Governance Audit report—where integrity is associated with ethical vision and leadership, accountability is linked to organizational management and answerability, and standards management involves the integration of norms and training—we posit that each dimension is a key factor in strengthening the Moroccan public sector's governance ;Consequently, this conceptual alignment leads directly to the formulation of our three central research hypotheses:

H1 : *Perceived high integrity in the organization is associated with strengthened ethical governance.*

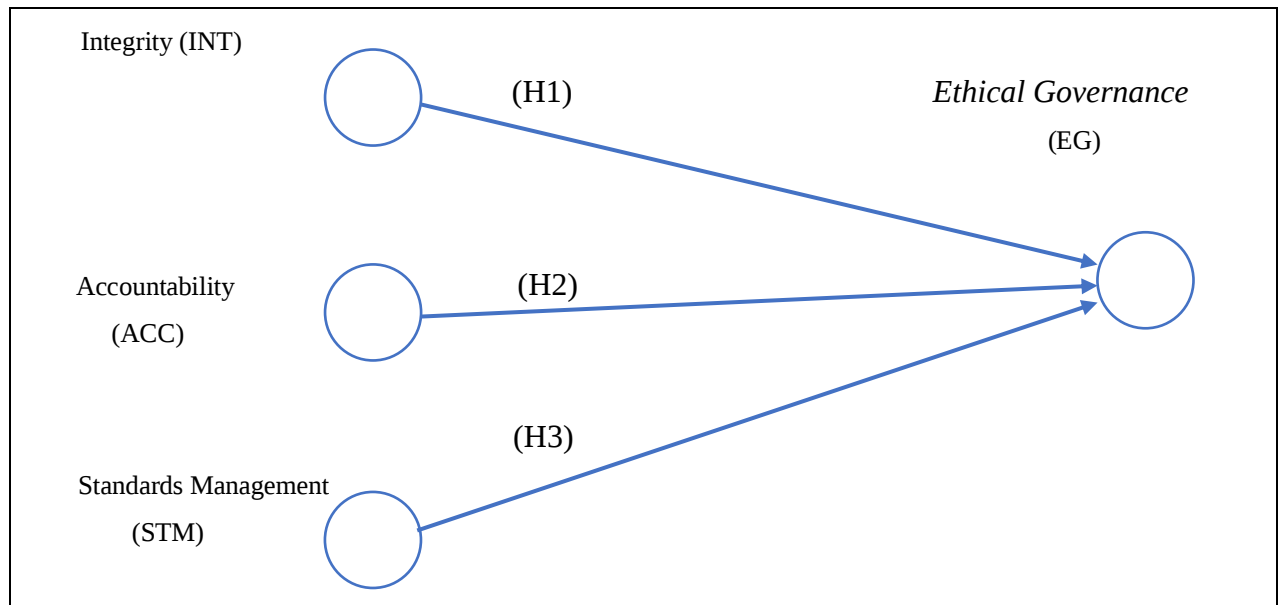
H2: *Perceived high accountability is associated with strengthened ethical governance.*

H3: *Perceived high standards management is associated with strengthened ethical governance.*

These hypotheses reflect the idea that internal auditors, by virtue of their administrative

position, identify these three areas as key factors of ethical governance. A climate of integrity (ethics training, zero tolerance, and exemplary leadership) should encourage more ethical behaviors and, consequently, more ethical governance (H1). Accountability mechanisms (controls, audits, transparency) should limit abuses and improve public decision-making (H2). Finally, standards/compliance management should create an environment conducive to ethics by reducing undue favoritism (H3). The next section presents the methodology used to test these hypotheses in the empirical survey.

Figure 1: Research Model.



Source : Authors

2.4. Analytical Synthesis and Conceptual Foundations of the Model

The conceptual model of this study is grounded in an integrative approach that views ethical governance not as a static organizational state, but as an emergent property of a robust "**ethics infrastructure**" (Gilbert et al. 2011). Rather than treating determinants in isolation, the model foregrounds the systemic interaction between three fundamental dimensions—**integrity, accountability, and standards management**—derived from the "**Ethical Governance Audit**" framework (2001) of the Improvement and Development Agency. The scientific rigor of this model rests on synthesizing two distinct but converging bodies of literature: normative ethics and institutional oversight mechanisms (Fleming and McNamee 2005; Huberts 2018).

2.4.1 Theoretical Convergences: The Tripartite Infrastructure of Public Legitimacy

A primary point of convergence in the literature is that effective democratic government depends on a "**bond of trust**" between the people and those in public life (Fleming and McNamee, 2005). This trust is fostered through the alignment of individual behavior with organizational systems, where **integrity (INT)** forms the normative foundation of governance (Huberts, 2018). Conceptualized through the "moral person" component of leadership, integrity involves the internalization of values such as honesty, probity, and public service motivation (Kaptein 2019; Huberts 2018). International normative frameworks—particularly those developed by the OECD and the World Bank—emphasize that integrity can only yield lasting governance effects when it is supported by explicit accountability mechanisms and effective respect for applicable rules and standards (Organisation for Economic Co-operation and Development 2020; World Bank 2022). However, a significant consensus exists that a purely

values-based culture often remains "**declarative**" or "**symbolic**" if it is not anchored in tangible institutional arrangements (Paine et al. 1994; Huberts 2018).

This leads to a second convergence: the necessity of **accountability (ACC)** and **standards management (STM)** as "mechanisms of translation" (De Boer 2023; Gilbert et al. 2011). Accountability is universally recognized as the central lever that aligns public action with the general interest by imposing an obligation of "**answerability**" on managers (Bovens 2010; Wright et al. 2016). Simultaneously, standards management provides the regulatory "**soft law**" infrastructure—comprising codes of conduct, procedures, and professional training—that creates a predictable and fair organizational environment (Cordery and Hay 2020; Makanga et al. 2026). Together, these three pillars are perceived to bridge the gap between individual moral intentions and robust institutional outcomes (Huberts 2018).

2.4.2 Divergences and Theoretical Tensions: Virtue and Mechanism

Despite these convergences, a fundamental dialectical tension persists regarding the relative weight of these determinants, often framed as the "**compliance-based**" vs. "**integrity-based**" debate (Paine et al. 1994; Huberts 2018).

- **The Ontological Status of Accountability:** Bovens (2010) identifies a critical divergence by distinguishing between accountability as a **virtue** (a subjective positive quality of an official) and accountability as a **mechanism** (an external institutional arrangement where one is held to account). While some discourses traditionally emphasize accountability as a personal virtue, this study diverges by modeling it as a structural mechanism perceived by internal auditors, thereby testing its predictive power on institutional governance (Bovens 2010; Wright et al. 2016).

- **The "Compliance" versus "Integrity" Paradox:** A second tension concerns the nature of behavioral regulation. The **compliance approach**, rooted in deterrence theory, envisions agents as rational maximizers of self-interest responsive primarily to the threat of detection and penalties (Paine et al. 1994). In contrast, the **integrity strategy** emphasizes self-governance according to chosen standards and moral ideals (Huberts, 2018). Critics argue that excessive proceduralism (compliance) can lead to an "**accountability trap**" where officials meet formal requirements without improving actual public service delivery (Bovens 2010).

- **The Decoupling Phenomenon:** Institutional theory suggests a divergence known as "**decoupling**," where organizations adopt ethical formal structures like codes of conduct as "window dressing" while actual activities vary in response to practical considerations (Gilbert et al. 2011; Meyer and Rowan 2012). This study addresses this divergence by focusing on the **perceptions of internal auditors**—the professionals tasked with distinguishing between symbolic compliance and substantive implementation (Arena and Azzone 2009; Eulerich et al. 2022).

2.4.3 Conclusion of the Synthesis: The Role of the Internal Auditor

The proposed model is distinguished by integrating these dimensions into a unified explanation centered on the **internal auditor's perspective** (Arena and Azzone 2009; Zahari et al. 2024). As relatively independent actors within public organizations, internal auditors are uniquely positioned to assess whether the Moroccan public sector relies on the "**ethics of virtue**" (**Integrity**) or the "**mechanisms of control**" (**Accountability and Standards**) to achieve ethical governance. The transferability of these governance determinants from other high-stakes sectors, such as banking or higher education, is justified by the shared fiduciary duty to maintain public trust (Yazid et al. 2025). By assessing this model through **Partial Least Squares (PLS-SEM)**, the study contributes to deepening the understanding of institutional factors shaping ethical governance in complex, changing administrative environments (Zahari et al. 2024; Hair

et al. 2022). The hypothesized relationships are visually synthesized in **Figure 1** (Research Model).

Table 1: Theoretical and empirical foundation of the ethical governance model

Variable	Theoretical and Conceptual Foundations	Key academic references
integrity (INT)	Integrity refers to the adherence of public actors to values of probity, honesty, and impartiality, as well as the existence of an organizational culture that promotes ethical behavior. It forms the normative foundation of ethical governance, but can remain declarative in the absence of formal institutional mechanisms.	Huberts (2018) ; Kaptein 2019; Paine et al. 1994; Fleming and McNamee 2005
accountability (ACC)	Accountability corresponds to the obligation for public managers to justify their decisions, to take responsibility for their actions, and to accept the consequences. It is a central pillar of ethical governance.	Bovens 2010; De Boer (2023); Wright, Hassan, and Park 2016
standards management (STM)	Standards management refers to the mechanisms that ensure effective compliance with laws, regulations, procedures, and codes of conduct. It contributes to a predictable, fair, and ethically conducive organizational environment.	Organisation for Economic Co-operation and Development 2020; Cordery and Hay 2020; Makanga et al. (2026)

Source : Authors

3. Methodology

3.1. Study context and sample

The study was conducted within public organizations in the Guelmim–Oued Noun region in southern Morocco. This region—significant in both population and area (46 108 km², approximately 6,5 % of Moroccan territory)—includes 132 public entities (deconcentrated state services, local authorities, local public establishments, etc.). In recent years, Morocco's public administration has pursued reform programs aimed at “moralizing” public life, modernizing management methods, and strengthening control instruments (notably through the Court of Auditors and internal audit). The Guelmim region is no exception: promoting integrity, transparency, and good governance is an explicit objective of local authorities.

The target population consists of internal auditors working in various public institutions across the Guelmim–Oued Noun region. In Morocco, internal auditing in the public sector has begun to take shape, driven notably by the General Inspectorate of Finance and training initiatives; moreover, public internal auditors are often grouped into professional associations. These auditors have privileged knowledge of their organizations' governance practices and of the reality of ethical mechanisms (or their shortcomings). They are therefore particularly well positioned to assess the actual presence of integrity, accountability, and standards-management factors, as well as to evaluate the overall level of ethical governance. We implemented a questionnaire survey among a sample of internal auditors in the region. Given the total number of public entities (132) and the fact that each entity often has only one or two internal auditors, the accessible population is relatively small. We therefore opted for a census strategy as far as possible, seeking participation from the largest possible number of reachable internal auditors. The questionnaire was designed and administered online (Google Forms via Gmail) and disseminated electronically to facilitate responses and quickly cover the regional territory. This mode of administration proved efficient and low-cost. A response deadline was set, and several reminders were sent to maximize the participation rate. Ethical standards were upheld by providing participants with a questionnaire designed for anonymous and voluntary participation. Consistent with the methodology, the study prioritized 'the possibility for respondents to answer freely and anonymously,' thereby ensuring data protection and informed participation without institutional coercion.

The study targeted a population of 132 public institutions within the Guelmim-Oued Noun region. With a final sample of N = 69 internal auditors collected through a snowball sampling

method, the effective response rate is 52.27%. This rate is considered representative given the sensitivity of the subject and the nascent state of internal audit cells in the Moroccan public sector. It provides a usable dataset for PLS-SEM analysis, as PLS is well suited to moderate sample sizes (typically 30 to 100 observations) because it relies on component-based estimation rather than maximum likelihood. Without detailing all individual characteristics, respondents are predominantly public-sector managers with, on average, about ten years of experience, and occupy either internal audit roles (audit units or general inspection units) or controller/financial management roles incorporating internal audit missions. The diversity of organizations represented (deconcentrated administrations, municipalities, public establishments, etc.) ensures some heterogeneity of the field, although all respondents operate within the same regional administrative context.

Because all variables were measured through a single questionnaire administered to the same respondents at one point in time, the study assessed the potential risk of common method bias. A statistical diagnostic such as Harman's single-factor test and a full collinearity assessment using variance inflation factors was conducted to verify whether common method variance posed a serious threat to the results.

3.2. PLS-SEM analysis procedure

We used partial least squares structural equation modeling (PLS-SEM) facilitated by the SmartPLS 4 software (Ringle, Wende, & Becker, 2022) to test the conceptual mode. This method is apposite for a number of reasons: (1) it works for exploratory or theorybuilding research whose main goal is to predict dependent variables; (2) The sample size of $N = 69$ is appropriate for PLS-SEM analysis facilitated by SmartPLS 4 (Ringle, Wende, & Becker, 2022). This "soft modeling" approach is particularly suitable for specialized professional groups where the population is naturally restricted. Unlike covariance-based methods, PLS-SEM relies on component-based estimation rather than maximum likelihood, ensuring statistical power and predictive relevance even with moderate samples. Following Henseler, Ringle, and Sarstedt (2015), we ensured that the model meets the most recent psychometric requirements for variance-based structural modeling, PLS-SEM remains effective for complex models even when the sample size is relatively limited; and (3) it lets you model latent variables reflected by indicators in a flexible way, without making strict normality assumptions. Following standard methodological guidelines (Anderson and Gerbing 1988; Hair et al. 2022), the analysis was conducted in two phases: (a) the assessment of the measurement model (outer model) to evaluate the reliability and validity of the scales linked to each latent variable; and (b) the examination of the structural model (inner model) to test the proposed relationships among latent variables.

Following established methodological guidelines (Anderson and Gerbing 1988; Hair et al. 2022), the analysis was conducted in two phases: (a) assessment of the measurement model (outer model) to determine the reliability and validity of scales linked to each latent variable; and (b) evaluation of the structural model (inner model) to examine the proposed relationships among latent variables.

- **Measurement model assessment: purification and validity/reliability.**

The measurement scales were adapted from the Improvement and Development Agency's "Ethical Governance Audit" report (2001) and are academically referenced by the study by Fleming and McNamee (2005), which defines competencies through integrity, accountability, and standards management. The substantial reduction in items—notably the removal of INT1, INT2, and INT4 for integrity; ACC1, ACC2, ACC5, and ACC8 for accountability; and STM1 to STM4 for standards management—was the result of an iterative Exploratory Factor Analysis (EFA) aimed at ensuring unidimensionality and internal reliability. Items were suppressed

based on low communality (< 0.40) or weak factor loadings (< 0.50) to achieve a Cronbach's Alpha above the 0.60 threshold, thereby ensuring the content validity of the remaining constructs and stabilizing the measurement model. After this purification step, each latent variable is measured by three to five correlated items. (see Table 2).

We then assessed construct reliability and convergent validity using Cronbach's alpha, composite reliability (ρ_c) and average variance extracted (AVE). Common thresholds were used:

Cronbach's alpha. $\geq 0,70$ (or $\geq 0,60$ in exploratory research) indicates acceptable internal consistency; composite reliability $\geq 0,70$ is desirable; and AVE $\geq 0,50$ suggests that the construct explains at least 50 % of the variance in its indicators (Fornell and Larcker 1981). The corresponding results are reported in Table 2.

Table 2: Reliability and convergent validity of measurement instruments

Latent variable	Items	Saturations	ρ_c	AVE	α
Integrity (INT)	INT3	0.504	0.783	0.560	0.637
	INT5	0.774			
	INT6	0.909			
Accountability (ACC)	ACC3	0.784	0.870	0.631	0.802
	ACC4	0.917			
	ACC6	0.826			
	ACC7	0.620			
Standards Management (STM)	STM5	0.494	0.816	0.612	0.761
	STM6	0.805			
	STM7	0.971			
Ethical governance (EG)	EG1	0.823	0.933	0.736	0.910
	EG2	0.863			
	EG3	0.932			
	EG4	0.832			
	EG5	0.836			

Source: Author's calculations based on SmartPLS 4 results.

Item loadings indicate each item's degree of correlation with its latent variable. Overall, they exceed the 0,50 ; threshold; items INT3 and STM5, slightly below the threshold, were retained because they were close to the cutoff and considered conceptually relevant. Composite reliability for all constructs exceeds 0,70 (from 0,783 to 0,933) and AVE is above 0,50 (from 0,560 to 0,736), supporting convergent validity. Cronbach's alpha exceeds 0,70 for three constructs (ACC, STM, EG) and is slightly lower for integrity ($\alpha = 0,637$). In an exploratory perspective, this value remains acceptable ($> 0,60$), while suggesting weaker internal consistency for integrity—possibly due to the reduced number of remaining items and the construct's complexity.

- **Discriminant validity.**

After examining internal reliability and convergent validity, we assessed discriminant validity, i.e., each construct's ability to distinguish itself from other latent variables. We used the Fornell–Larcker criterion (Fornell and Larcker 1981), according to which the square root of each construct's AVE should be greater than its correlations with other constructs. Table 3 reports construct correlations with $\sqrt{AVE}$ on the diagonal.

Table 3: Discriminant validity (Fornell–Larcker criterion) : $\sqrt{AVE}$ diagonally)

	INT	ACC	STM	EG
INT	0,748	0,260	0,269	0,204
ACC	0,260	0,794	0,352	0,469
STM	0,269	0,352	0,782	0,362
EG	0,204	0,469	0,362	0,858

Source: Author's calculations based on SmartPLS 4 results.

Diagonal values exceed the associated correlations, indicating satisfactory discriminant validity. We also examined cross-loadings and the HTMT (heterotrait–monotrait) ratio (Henseler, Ringle, & Sarstedt, 2015); no discriminant validity problems were detected (HTMT < 0,85).

• **Structural model assessment**

Once measurement model quality was established, we evaluated the structural model corresponding to hypotheses H1, H2, and H3. Estimation was performed in SmartPLS using a bootstrap procedure (500 resamples) to test the significance of path coefficients. The model's explanatory power was assessed using the coefficient of determination R² of the dependent variable Ethical Governance (EG), as well as f² indicators (effect size of each predictor) and Q² (Stone–Geisser) for predictive relevance.

4. Results

The main results of the PLS-SEM estimation are presented below, starting with the quality of the structural model and then the hypothesis tests.

4.1. Quality of the structural model

The structural model sets out to explain the latent variable Ethical Governance (EG) using three explanatory variables—Integrity (INT), Accountability (ACC) and Standards Management (STM)—in accordance with hypotheses H1, H2, and H3. Together, these three ethical factors explain a non-negligible portion of EG variance. The coefficient of determination obtained is R² = 0,266. This means that 26,6 % of the variance in perceived ethical governance is explained by the model, which can be considered moderate in exploratory social science research.

The remaining 73,4 % may be due to other factors not included in the model (e.g., broader organizational culture, leadership, or other governance dimensions). However, an R² of this magnitude is frequently observed in PLS studies on related topics, where values between 0,20 and 0,30 are common. The model thus falls within an acceptable validity range for an initial investigation.

We also examined f² (values (effect size of each independent variable on R²). Accountability (ACC) shows the largest effect size (f² ≈ 0,15, i.e., a medium effect), followed by standards management (STM) with a small-to-moderate effect, whereas integrity (INT) displays a nearzero effect (f² < 0,01). These findings provide an initial indication of each factor's relative contribution, later confirmed by hypothesis tests. In addition, the Stone–Geisser Q² criterion, computed using the blindfolding resampling technique, was positive (Q² > 0) for EG, indicating predictive relevance.. In other words, the model can predict ethical governance beyond what would be expected by chance, reinforcing its practical value in anticipating ethical governance levels based on internal ethical perceptions.

4.2. Hypothesis testing (structural relationships)

Table 4 demonstrates the estimated path coefficients for the three hypothesized relationships, along with the associated statistics (bootstrap t-values, significance) and whether the hypotheses receive empirical support.

Table 4: Hypothesis test results of the PLS model

Hypothesis	Relationship	β	t	Significance	Supported
H1	INT → EG	0,047	0,348	n.s. ($p > 0,10$)	No
H2	ACC → EG	0,382	3,240	$p < 0,01$	Yes
H3	STM → EG	0,215	1,695	$p < 0,05$	Yes

Source: Author's calculations based on SmartPLS 4 results.

Hypothesis H1 is not supported: the path coefficient from integrity to ethical governance is very small ($\beta = 0,047$) and statistically non-significant ($t = 0,348$). In contrast, hypothesis H2 is supported: perceived accountability has a positive and significant effect on ethical governance ($\beta = 0,382$, $t = 3,240$, $p < 0,01$). The hypothesis testing was conducted using one-tailed tests, which is theoretically justified by the directional nature of the research hypotheses (H1, H2, and H3), all of which predict a specific positive relationship. For H3 ($STM \rightarrow EG$), the t-value of 1.695 is significant at the 5% level because it exceeds the critical one-tailed threshold of 1.645. This explicit methodological choice ensures the interpretation of significance for H3 is statistically rigorous and aligned with the study's predictive goals.

These results indicate that, according to the internal auditors surveyed, higher accountability and more rigorous standards management are associated with higher perceived ethical governance. Conversely, perceived integrity is not significantly associated with ethical governance in this model. The uniform English notation (ACC for Accountability; STM for Standards Management; EG for Ethical Governance) is applied as follows:

$$EG = 0.047 INT + 0.382 ACC + 0.215 STM + \varepsilon, \quad \text{with an } R^2 = 0.266.$$

Thus, a one-unit increase in perceived accountability is associated with an average increase of 0.382 units in perceived ethical governance (all else equal). A comparable increase in perceived standards management is associated with an average increase of 0.215 units in perceived ethical governance. By contrast, integrity's effect remains marginal and non-significant. From a statistical standpoint, the model shows no excessive multicollinearity among predictors: all VIF values are below 2. Moreover, an alternative estimation using multiple regression (OLS) yields consistent results, reinforcing the robustness of the PLS estimates. Hypothesis H1 is not supported: the path coefficient from integrity to ethical governance is very small ($\beta = 0.047$) and statistically non-significant ($t = 0.348$). However, the non-significant effect of integrity should also be interpreted in light of the construct's weaker psychometric properties. Compared with the other constructs, Integrity shows a relatively low internal consistency (Cronbach's $\alpha = 0.637$), and item INT3 loads only marginally above the acceptable threshold (0.504). This measurement fragility may partly explain the absence of a significant structural effect and should therefore be considered as a methodological limitation alongside the substantive interpretation of H1. In contrast, H2 and H3 are confirmed, indicating that accountability and compliance with standards are significant contributors to ethical governance in the empirical setting studied.

5. Discussion

The findings provide several insights and invite reflection, both in the context of Moroccan public administration and in relation to prior studies on ethics in professional settings and internal control.

5.1. Primacy of accountability and compliance over perceived integrity

The main finding is that the perceived impact of integrity (H1) is not significant, unlike accountability (H2) and standards management (H3). According to surveyed internal auditors, it is primarily formal accountability mechanisms and effective respect for rules that determine ethical governance, rather than efforts to encourage values and an ethical culture.

This result may appear counterintuitive, as one might expect an integrity-oriented culture to constitute the basis of ethical governance. Several explanations can be proposed. First, integrity related measures (awareness, ethics training, etc.) may exist but be perceived as too abstract or insufficiently implemented. Without tangible enforcement mechanisms, integrity discourse may be viewed as mere declarations rather than real levers of change. In addition, personal integrity, ethical sense, and moral values may be perceived as relatively stable among the public

officials studied, resulting in low differentiation of these qualities within the sample. Nevertheless, accountability and compliance mechanisms can vary across organizations and exert a more noticeable influence on governance perceptions. The results shed light on the debate between integrity-based and compliance-based approaches in ethics programs (*Paine et al. 1994*). In the studied context, the compliance-and-accountability approach appears to have a more concrete impact on ethical governance. Accountability emerges as the primary determinant, consistent with the idea that accountability is essential for good governance. Without accountability, ethical values may be bypassed without consequences. Furthermore, the study acknowledges that the lower internal consistency of the Integrity construct ($\alpha=0.637$) and the marginal loading of item INT3 (0.504) compared to other variables may have introduced statistical 'noise'. This psychometric fragility is a plausible alternative or contributing explanation to the administrative culture argument for the lack of a direct effect between perceived integrity and governance outcomes. This measurement limitation is thus clearly distinguished from the substantive interpretation regarding the primacy of formal control mechanisms in the Moroccan context.

This conclusion corroborates (*Bovens 2010*), considers accountability as a tool for translating personal integrity into tangible institutional outcomes. The study acknowledges the lower internal consistency of the Integrity construct ($\alpha = 0.637$) and the marginal loading of item INT3 (0.504) compared to the other variables. While this value remains acceptable for exploratory research (>0.60), its psychometric fragility is a plausible alternative explanation for the non-significance of H1. This measurement limitation—potential 'noise' in the construct—is thus distinguished from the substantive interpretation regarding the primacy of formal control mechanisms over value-based cultures in the Moroccan administrative context. The second significant factor is standards management (H3). Although its coefficient is smaller than that of accountability, its impact remains substantial. Internal auditors place great importance on compliance with procedures and rules. Accordingly, It is believed that an organization with a strong internal control system and a culture that values compliance is better governed morally. The significant impact of standards management (STM) in the Moroccan context suggests that auditors prioritize structured guidance. This aligns with experimental findings by Stöber et al. (2019), who demonstrate that the specific design of compliance programs—including the use of 'belief systems' in codes of conduct and the implementation of specific rather than general training—is more effective at shaping ethical intentions than the mere existence of a code. The observed link between accountability and standards management suggests that these two areas support each other. For example, compliance makes the environment more orderly, which helps accountability, and accountability encourages respect for standards by making people report and explain their actions. The lack of a direct impact of perceived integrity does not imply that integrity is insignificant; instead, it may function indirectly and necessitate structural mechanisms (standards, controls) to yield observable enhancements in governance. Ultimately, the absence of a direct effect of perceived integrity does not mean that integrity is unimportant; rather, it may operate indirectly and require structural mechanisms (standards, controls) to translate into observable improvements in governance.

5.2. Theoretical implications and implications for internal auditing

The findings theoretically substantiate various assertions within the public governance literature and specifically reaffirm the significance of the OECD model, which advocates for the concurrent enhancement of integrity culture, control systems, and accountability to improve integrity within public administrations (*Organisation for Economic Co-operation and Development 2020*). In the examined case, two of these three components (control and accountability) seem to work, but the cultural component seems underdeveloped or ineffective. This may indicate a gap between ethics training policies and their observable outcomes. Recent

training programs may not yet have generated tangible effects, or their content may be too generic to foster lasting changes in practice.

The study also highlights the crucial role of internal auditing as a means of ensuring accountability and compliance. Support for H2 and H3 implicitly suggests that internal auditors consider their compliance- and accountability-focused work essential to improving management. In other words, internal audit is well positioned to positively influence ethical governance by acting (i) as an accountability mechanism (through regular missions, reporting, and follow-up on recommendations) and (ii) as a “guardian of standards” (through verification of compliance with rules, procedures, and regulatory requirements). From this standpoint, strengthening internal audit (e.g., allocating additional resources, increasing independence, or improving institutionalization of prerogatives) would likely reinforce these two levers and thereby elevate governance ethics.

This conclusion aligns with observations in other settings. *Yazid et al. (2025)* show, in the Indonesian banking sector, that adopting more ethical governance (including voluntary ethics disclosures and better management practices) led to a substantial decrease in financial fraud cases during the pandemic. The inclusion of empirical evidence from the Indonesian banking sector (*Yazid et al., 2025*) and global financial fraud patterns (*Kizil et al., 2021*) serves as a theoretical heuristic to underscore the transversal efficacy of ethical oversight. However, this cross-sectoral extrapolation is accompanied by a necessary methodological caveat: while these studies illustrate a universal capacity for governance mechanisms to mitigate opportunistic behavior, their findings are not intended for direct isomorphic transposition to the Moroccan public administration. Instead, this analogical bridge is utilized to delineate macroscopic institutional trends, while explicitly acknowledging that the idiosyncratic pressures and regulatory frameworks of the Moroccan public sector remain substantively distinct from those of private financial or crisis-driven environments.

Another implication concerns managing ethical change. Our results suggest that establishing ethical governance may require, first, solid foundations of control and accountability—before (or at least alongside) the promotion of integrity values. This resembles building construction: regulatory and control foundations are needed to support a sustainable ethical culture. In contexts where public ethics may have been weakened, it is logical for auditors to favor concrete measures (controls, audits, sanctions) to restore practices. Once procedures are well established, integrity culture can develop on more fertile ground. This logic aligns with the concept of “compliance leadership”: public leaders must lead by example by rigorously complying with rules and being accountable, which strengthens the credibility of their discourse and commitment to values.

5.3. Specificities of the Moroccan context and international comparison

Morocco, like many developing countries, has pursued major governance reforms to combat corruption and modernize public administration. Historically, Moroccan administration has suffered from a lack of transparency and formalized internal control mechanisms. Public-sector internal auditing has grown relatively recently. It is therefore unsurprising that internal auditors prioritize correcting so-called “technical” deficiencies (controls, audits, regulatory compliance) rather than promoting ethics that are already recognized at the level of principles. It can be hypothesized that ethics training programs in Morocco are not yet fully developed or remain largely formal, which could explain their limited short-term impact. By contrast, the emphasis placed by public authorities on accountability—particularly through the actions of the Court of Auditors and strengthened reporting obligations—has already influenced perceptions and behaviors. Recent media coverage of several cases of improper financial management, followed by sanctions, has sent a strong message about the importance of accountability. According to respondents, accountability is thus an indicator that differentiates a well-structured organization

from a more lax one. In Western societies where oversight and accountability mechanisms are well established, ethical culture tends to have a stronger impact on distinguishing organizations. The comparison with 'Scandinavian bodies' based on *Kolthoff et al. (2007)* is now explicitly framed as an interpretative hypothesis. Given the absence of systematic cross-national data in this study, the assertion that ethical culture plays a more discriminant role in Western contexts is presented with caution. It is suggested that in mature governance systems where structural oversight is firmly established, values-based integrity may become the primary differentiator for organizational performance, whereas in the developing Moroccan administrative context, structural accountability remains the immediate perceived priority. In Morocco, the current objective is to remedy the lack of oversight and transparency before tackling the challenge of promoting a shared culture of integrity. The findings can also be interpreted in light of administrative capacity theory.

Organizations with limited capacities (insufficient controls, weak compliance) are more likely to experience chaotic management and vulnerability to abuses. Conversely, organizations with strong capacities and rigorous reporting tend to display more disciplined management. In this perspective, integrity culture acts as a higher-order layer that builds upon already consolidated institutional capacities. In the analyzed sample, variations in institutional capacity may be the main observable determinant (via accountability and standards management), temporarily relegating ethical culture to a secondary role.

5.4. Limitations and scope of the results

When looking at these results, there are a few limitations that should be emphasized. First, the sample of 69 internal auditors is only from one region and one country. Even though the participants of the survey work for different organizations, they all work within the same social and administrative framework. Consequently, outcomes may vary in different regions or nations. Conducting a similar study in different contexts would enable comparisons of factors perceived to influence ethical governance. Second, the study uses self-reported, perceptual data, which could lead to bias based on what people believe is socially acceptable or desirable. This risk was lower because responses were kept private and internal auditors were involved, which helped the data be more objective. Still, some perceptions may not match up with reality. For example, if the effects of ethics training do not show up until later or in a roundabout way, people might not realize how important it is. In addition, some respondents may downplay criticism in places with very weak governance. In addition, the explanatory model includes only three variables and thus explains about 27 % of the variation in ethical governance, leaving roughly 73 % of residual variance attributable to other factors. Possible omitted variables include ethical leadership, whose influence on organizational culture is well documented (*Zahari et al. 2024*). National culture, personal values outside the workplace, and structural characteristics (organizational size, mission type, media visibility) may also play a role. External factors such as NGO or media influence were not considered.

Despite these limitations, the main value of this study lies in shedding light on internal auditors' perceptions—an underexplored perspective in the literature. The fact that these actors confirm the importance of accountability and regulatory compliance reinforces intuitions widely shared among practitioners. These results support the need to strengthen and sustain accountability and internal control initiatives within Morocco's public sector and, more broadly, within administrations seeking to improve governance. With a view to publication in *Public Integrity*, this paper examined ethical governance in public organizations from the original angle of internal auditors' perceptions. By mobilizing a conceptual framework articulated around integrity, accountability, and standards management, and by testing a PLS-SEM model on a sample of internal auditors in Morocco, several key lessons emerge. First, results show that, according to internal auditors, the most decisive factors of ethical governance

are accountability and compliance with standards. These two dimensions constitute the foundation of sound governance by ensuring transparency, actor responsibility, and respect for established rules.

This conclusion aligns with globally recognized governance principles: without responsibility and effective respect for laws, integrity in public management cannot be guaranteed. It also underscores the central role of internal audit, whose primary mission is to verify compliance and strengthen accountability, thereby contributing to improved organizational ethics. In contrast to these structural factors, integrity—understood as ethical culture—does not appear to have a significant impact on perceived ethical governance in this study. In other words, promoting values and implementing ethical initiatives (codes of conduct, trainings, charters) does not necessarily improve governance without concrete control and accountability mechanisms. This does not minimize integrity's importance; rather, it suggests that integrity must be embodied, institutionalized, and supported by formal arrangements to have real impact. In the studied context, ethical discourse must be translated into tangible actions and observable behaviors to become more effective. This calls on policymakers to go beyond mere declarations of good intentions and to tightly link ethical culture to control systems. The findings suggest a hierarchical interdependence where structural accountability and standards management serve as the necessary institutional foundations for ethical governance. Normative values and an integrity-based culture may remain largely symbolic or 'declarative' unless they are anchored in robust mechanisms of oversight and institutional answerability. It is also important to note further limitations.

The sample is geographically limited and based on a small number of respondents, which may affect generalizability. Moreover, the explanatory model includes only a few variables, and data are based on subjective perceptions. These limitations open avenues for future research. It would be useful to expand the study to other regions or countries, incorporate additional variables such as ethical leadership or organizational culture, and use qualitative methods (interviews, case studies) to deepen understanding of underlying mechanisms and resistance to implementing ethical governance. Longitudinal studies could examine how views evolve over time, particularly before and after changes in institutional structures. Despite the limitations, the practical applications for public decision-makers and organizational leaders are clear. To ensure greater integrity in governance, particular attention should be paid to strengthening accountability and internal control mechanisms. This may involve reinforcing internal audit resources and autonomy, establishing effective audit committees, systematically disseminating accounts and audit reports, implementing recommendation follow-up systems, and adopting a zero-tolerance approach to failures accompanied by appropriate disciplinary measures. At the same time, efforts in ethics training and awareness should be sustained, as the ultimate objective remains the emergence of a genuine culture of integrity—based not solely on fear of sanction, but on adherence to shared values. Ultimately, the study shows that control and accountability structures are essential for ensuring the effectiveness of an ethical culture. Decision-makers in the public sector should use a mix of hard controls (like audits, inspections, rules, and penalties) and soft controls (like codes of ethics, inspiring leadership, and a culture of trust). Internal auditors, who are experts in control, can help management find ways to make ethical considerations a bigger part of their work by acting as strategic advisers. Looking at how they see things gives you a good idea of where you need to make changes. This experience and making the right changes can help public institutions in the Guelmim region and beyond become more honest, open, and responsible. These are the most important things that need to happen in order to build trust among citizens and make public services better in the long term.

6. Conclusion

Enhancing accountability in the public sector remains a paramount institutional priority. This study provides empirical evidence that challenges the conventional assumption that ethical climates and internal audits necessarily "work in unison" to ensure governance. Since perceived integrity (ethical culture) showed no significant effect on ethical governance (H1 rejected), the results demonstrate that formal oversight mechanisms—specifically accountability and standards management—are the exclusive significant drivers of ethical governance within the studied Moroccan administrative context. Consequently, value-based culture is characterized as a "declarative" or secondary element that requires robust structural foundations to become effective.

6.1. Summary of Empirical Findings

The structural model indicates that accountability and standards management exert a positive and statistically significant influence on ethical governance. Specifically, accountability ($\beta = 0.382$, $p < 0.01$) and standards management ($\beta = 0.215$, $p < 0.05$) are the only variables that significantly predict governance outcomes in the Guelmim–Oued Noun region. Together, these ethical factors explain 26.6% ($R^2 = 0.266$) of the variance in perceived ethical governance. Conversely, the impact of integrity was found to be statistically non-significant ($\beta = 0.047$), suggesting that purely values-based approaches may be insufficient in the current administrative framework without the anchoring of formal controls.

6.2. Managerial Recommendations

To address the lack of direct empirical backing for certain suggestions, the conclusion now explicitly distinguishes between two types of recommendations:

- **Evidence-based recommendations:** Directly derived from the statistical support for H2 and H3, these focus on strengthening the independence of internal audit and reinforcing formal accountability frameworks. These measures are essential to transform the perceived significance of accountability into robust institutional practices.
- **Literature-inspired recommendations:** Measures such as joint ethics/audit committees and staff exchange programs between internal auditing and other divisions are presented as complementary 'best practices'. While not direct outputs of the PLS-SEM model, they are drawn from global governance literature to foster a long-term climate of supervision and institutional integrity.

6.3. Scientific Contributions

This research enriches the literature on oversight mechanisms in developing countries by providing empirical insights into the unique perceptions of internal auditors. By utilizing PLS-SEM, the study offers a predictive framework that highlights the hierarchical importance of structural accountability over informal integrity cultures in emerging governance contexts. These findings align with global trends documented by the World Bank (2022), establishing that effective governance and accountability are indispensable for sustainable socio-economic development.

6.4. Limitations and Future Research

The study acknowledges certain limitations, notably the moderate sample size of 69 internal auditors and its focus on a specific regional context. Furthermore, the model leaves roughly 73% of residual variance to be explored, suggesting that omitted variables such as ethical leadership or broader organizational culture may play a significant role. Future research should utilize longitudinal designs to view public administration not merely as a procedural matter, but

as a "deeply moral undertaking" (Barzelay, 2019), tracking how accountability becomes a tangible reality over time.

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