

Analysis of Parameters Influencing the Effectiveness of Internal Audit within Public Enterprises in Morocco: Attempt to Create a Model for Evaluating this Effectiveness.

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Déclaration de divulgation : L'auteur n'a pas connaissance de quelconque financement qui pourrait affecter l'objectivité de cette étude.

Conflit d'intérêts : L'auteur ne signale aucun conflit d'intérêts.

Pour citer cet article : OTMANE .Y , EL AISSAOUI .H & EN NEJJARI .M (2024) « Analysis of Parameters Influencing the Effectiveness of Internal Audit within Public Enterprises in Morocco: Attempt to Create a Model for Evaluating this Effectiveness », African Scientific Journal « Volume 03, Numéro 22 » pp: 0547 – 0580.

Date de soumission : Janvier 2024

Date de publication : Février 2024



DOI : 10.5281/zenodo.10736217
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Abstract

This study focuses on the analysis of factors influencing the effectiveness of internal audit within Public Enterprises in Morocco. Its main objective is to develop a specific evaluation model designed to measure this effectiveness. The process begins with contextualizing the research, highlighting its stakes and objectives. Initially, we examine the literature from three perspectives: theoretical, empirical, and professional, providing a comprehensive understanding of the effectiveness of internal audit. Next, we delve into the conceptual framework, emphasizing the relevance of the topic and detailing the process of identification and formulation of the evaluation model.

In conclusion, this study aspires to contribute to the understanding and improvement of the effectiveness of internal audit within Public Enterprises in Morocco. It aims to address the fundamental question: what are the decisive elements influencing the effectiveness of internal audit processes within Moroccan Public Enterprises (EEPs), and how can these elements be measured and improved to ensure optimal quality of internal audit within these organizations?

Keywords : Internal Audit, Effectiveness, Governance, Stakeholder Relations, External Factors

1. Introduction

In a dynamic context of modern management, public institutions in Morocco are facing socio-economic challenges and increasing demands for transparency. At the heart of these issues, the effectiveness of internal audit functions emerges as an undeniable strategic element. Internal audit, as an essential mechanism for monitoring and control, plays a crucial role in ensuring transparency, compliance with standards, and efficient resource management within these organizations.

This study undertakes a thorough analysis of the determinants of internal audit effectiveness within Public Institutions in Morocco. Its main objective is to develop a specific evaluation model aimed at measuring this effectiveness. To achieve this goal, the research unfolds through contextualization of the subject, exposing underlying challenges, and clearly stating its objectives.

To provide a holistic understanding, we undertake a comprehensive literature review from three distinct perspectives: theoretical, empirical, and professional, thereby acquiring a complete vision of internal audit effectiveness. Subsequently, we focus on developing the conceptual framework, highlighting the relevance of the subject, and detailing the process of identification and formulation of the evaluation model.

This study aims to make a significant contribution to understanding and improving internal audit effectiveness within Public Institutions in Morocco. It seeks to address the fundamental question of determining factors influencing the effectiveness of internal audit processes in these institutions and explore methods to measure and enhance these elements to ensure optimal internal audit quality.

To enrich the existing literature, this research aims to identify concrete approaches that can enhance internal audit effectiveness. In line with the suggestions of Lenz and Hoos (2023, pp. 44 and 49), (1) who emphasize the need for internal auditors to broaden their repertoire in response to the evolving context towards complexity, this study focuses on the specific context of public institutions in Morocco. In this framework, where the effectiveness of internal audit processes remains an essential and complex issue, two fundamental questions emerge: what are the factors influencing the effectiveness of internal audit in the public sector, and how can these factors be optimized to effectively meet the specific needs of these organizations?

2. Literature Review

The concept of "efficiency," derived from the Latin "efficacia," meaning "the ability to produce an effect," expresses the competence to generate positive results. It refers to the ability to

achieve a desired outcome optimally, minimizing the use of resources. The term, commonly used in various fields such as business, education, and technology, evolves based on societal concerns and orientations, emphasizing performance improvement to efficiently achieve objectives.

The effectiveness of internal audit manifests through the judicious implementation of theoretical principles, the practical application of empirical results, adherence to professional standards, and a constant commitment to professional development to ensure a meaningful contribution to governance and risk management within an organization. Fundamental in the field of management and corporate governance, this topic will be addressed from various perspectives in this literature review, articulated around three complementary approaches: theoretical, empirical, and professional. The first will explore the effectiveness of internal audit through a theoretical approach, highlighting key concepts, models, and theories that structure the understanding of this field. The second will examine the empirical approach, focusing on studies and research evaluating the effectiveness of internal audit in specific contexts. Finally, the third will address this effectiveness from a professional standpoint, concentrating on practices and standards established by experts from international bodies in the field. This in-depth exploration will provide a holistic perspective on the role and impact of the effectiveness of internal audit within organizations.

2.1. The Theoretical Approach to the Effectiveness of Internal Audit

The effectiveness of internal audit within public establishments is a cornerstone ensuring transparent and effective governance. To comprehend the underlying mechanisms of this effectiveness, various theories provide appropriate conceptual frameworks. Agency theory, Signal Theory, Public Choice Theory, New Public Management (NPM), and Stakeholder Theory emerge as relevant theoretical perspectives, offering distinct insights into the position and optimization of internal audit in the context of the public sector. This theoretical exploration aims to anchor the effectiveness of internal audit in a robust conceptual framework, highlighting the theoretical influences that shape and justify our expectations regarding its contribution to governance and performance in public institutions (2).

Summary of Relevant Points and Implications for Each Theory: Developed by the Authors

The Theory	Relevance and implications
<p>Agency theory</p> <ul style="list-style-type: none"> • Main author: Michael C. Jensen, who co-authored several influential articles on the subject. One of his most famous articles is "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure," published in 1976 in collaboration with William H. Meckling. • Key concepts: <p>Principal-Agent Relationship: Focuses on the relationship between the principal (often the owner or shareholder) and the agent (often the manager or executive). This relationship is characterized by information asymmetry.</p> <p>Conflicts of Interest: Conflicts of interest emerge due to information asymmetry.</p> <p>Incentive Alignment: A central goal of agency theory is to align the incentives of agents with the goals of principals. This involves designing contracts and incentive mechanisms that encourage agents to act in the interest of principals.</p> <p>Signal Theory</p> <ul style="list-style-type: none"> • Key Author: Michael Spence. Signal theory was initially developed by 	<p>Relevance:</p> <p>Agency theory justifies the quality of internal audit by emphasizing its crucial role in reducing conflicts of interest, monitoring management, improving transparency, aligning incentives, and managing risks. By acting as an independent internal control mechanism, internal audit contributes to strengthening shareholder confidence and promoting more responsible management within organizations.</p> <p>Implications:</p> <p>Agency theory has significant practical implications for how businesses are organized, led, and regulated. It provides a useful theoretical framework for understanding governance dynamics and control mechanisms in a context where the interests of owners (shareholders) and managers may diverge.</p> <p>Relevance:</p> <p>Stakeholder Theory (TS) holds significant relevance in the context of public institutions, especially when assessing the effectiveness of internal audit. This theory offers valuable insight into how signals emitted by internal audit processes can influence the perception</p>

<p>Michael Spence in his article "Job Market Signaling," published in 1973.</p> <p>• Key Concepts: Signal theory was developed by Michael Spence within the framework of information economics. He notably elaborated on the concept of "signals" allowing stakeholders to acquire information about the quality of a product or service, especially in the context of hiring and financial markets.</p>	<p>and trust of stakeholders. In the specific context of public institutions, where transparency and credibility are crucial elements, TS can help analyze how internal audit results and reports are interpreted by decision-makers, citizens, and other stakeholders. By highlighting how these signals are perceived, this theory can contribute to assessing the actual impact of internal audit on public trust and governance quality.</p> <p>Implications:</p> <p>Applying TS to the effectiveness of internal audit in public institutions has important practical implications. By understanding how internal audit signals are interpreted, government officials can adjust their audit practices to strengthen public and stakeholder trust. For example, clear and transparent communication of audit results may be seen as positive signals, reinforcing the credibility of internal audit processes. On the other hand, TS can also highlight aspects that may be prone to misinterpretation, guiding efforts to improve communication and understanding of audit results. In summary, applying TS offers practical implications to optimize the effectiveness of internal audit as a communication tool and trust-building mechanism in the context of public institutions.</p>
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<p>Public Choice Theory</p> <ul style="list-style-type: none"> • Main authors : James M. Buchanan and Gordon Tullock. Public Choice Theory was developed by James M. Buchanan and Gordon Tullock in the 1950s and 1960s. • Key concepts: Buchanan and Tullock developed Public Choice Theory by applying principles of economic theory to political decisions. This perspective considers public actors as rational individuals seeking to maximize their self-interest. Public Choice Theory analyzes how collective decisions are made in a political context, highlighting the mechanisms underlying the decision-making process within public institutions. 	<p>Relevance:</p> <p>Public Choice Theory (PCT) holds particular relevance in the context of public institutions due to its analytical framework for understanding decisions made within these organizations. Adopting an economic and rationalistic perspective, PCT allows exploration of how government actors make decisions, considering their personal interests, incentives, and institutional constraints. In the context of internal audit, this theory can help unveil decision-making mechanisms, the motivations of involved actors, and evaluate how these elements influence the effectiveness of internal audit processes. Thus, PCT provides pertinent insights into decision-making within the specific context of Moroccan public institutions, enriching the analysis of internal audit effectiveness.</p> <p>Implications:</p> <p>Applying PCT to public institutions has significant implications. By focusing on individual incentives and decision-making mechanisms, this theory can help identify potential conflicts of interest, information asymmetries, and institutional obstacles that may hinder the effectiveness of internal audit. Understanding the motivations of government actors better makes it possible to design appropriate incentive mechanisms to enhance internal audit effectiveness. For example, PCT could suggest organizational</p>
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	<p>reforms aiming to align individual incentives with the overall goals of transparent and efficient management of public resources. In summary, applying Public Choice Theory to the study of internal audit effectiveness offers practical implications for designing public policies and governance mechanisms to improve the performance of public institutions.</p>
<p>New Public Management (NPM)</p> <ul style="list-style-type: none"> • NPM emerged in the 1980s, propelled by various contributions from authors and practitioners. The dissemination of this approach was marked by the influence of the book "Reinventing Government" by David Osborne and Ted Gaebler, published in 1992. 	<p>Relevance:</p> <p>Internal audit, adopting performance-focused methods, significantly contributes to the implementation of New Public Management (NPM) principles. Aligning with the goals and standards of NPM, internal audit allows for a thorough evaluation of operations within public institutions. By emphasizing performance, it aligns with an approach aimed at increasing the efficiency, transparency, and accountability of public institutions, key aspects of NPM. Thus, internal audit positions itself as a strategic tool to promote results-oriented governance and efficient use of resources.</p> <p>Implications:</p> <p>Performance evaluation through internal audit entails major implications for the modernization and efficiency of government processes within public institutions. By closely scrutinizing activities, internal control systems, and procedures, internal audit provides relevant recommendations for optimizing existing processes. This proactive</p>

	<p>approach contributes to identifying inefficiencies, reducing risks, and establishing mechanisms for continuous improvement. Furthermore, by promoting transparency and accountability, performance evaluation through internal audit helps strengthen public trust in the management of public funds and meet growing expectations for accountability. In summary, the implications of internal audit go beyond performance evaluation; they actively participate in the modernization and overall efficiency of government processes, thus supporting the goals of New Public Management.</p>
<p>Stakeholder Theory</p> <p>• Main author: Conceptualized by R. Edward Freeman. This theory posits that organizations have a broader responsibility to a set of actors called stakeholders, extending beyond shareholders alone. Freeman defines stakeholders as anyone who may be impacted by or influence the activities of an organization.</p>	<p>Relevance:</p> <p><i>Holistic vision:</i> Recognizes the diversity of stakeholders and aligns with modern operational complexity.</p> <p><i>Proactive risk management:</i> Identifies and understands expectations to anticipate and mitigate risks.</p> <p><i>Social responsibility:</i> Emphasizes the extended responsibility of organizations towards society.</p> <p>Implications:</p> <p><i>Comprehensive stakeholder identification:</i> Ensuring the identification of all relevant stakeholders for a thorough risk assessment.</p> <p><i>In-depth analysis of expectations:</i> Evaluating mechanisms to respond to the specific expectations of each stakeholder.</p>

	<p><i>Communication assessment:</i> Ensuring the quality and effectiveness of organizational communications.</p> <p><i>Contribution to social responsibility:</i> Examining the integration of social, environmental, and ethical concerns into operations.</p>
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2.2. Empirical Approach to Internal Audit Effectiveness

At the core of the field of internal auditing, effectiveness holds crucial importance as the ability to efficiently achieve organizational objectives while optimizing resource utilization, improving internal processes, and maximizing overall performance. In this perspective, we will empirically explore the effectiveness of internal auditing by examining several studies, providing a concrete look at how this function contributes to achieving organizational goals.

According to DeAngelo (1981), audit quality is defined as the joint probability that an auditor simultaneously detects a significant anomaly or irregularity in the client company's accounting system and reports this anomaly or irregularity. Citron and Taffler (1992) confirm that the quality of an audit report depends on a technically competent and independent auditing process. Meanwhile, Titman and Trueman (1986) as well as Beatty (1989) assess audit quality in terms of the accuracy, precision, and reliability of financial statements. Wallace (1980) conceptualizes audit quality as its ability to reduce noise in publicly disclosed financial information (3).

Based on the findings of Dittenhofer's (2001) study, internal audit is considered effective when the internal auditor's work involves verifying the achievement of auditees' objectives without detecting issues, or when problems are identified and resolved through recommendations. It is clear that evaluating the effectiveness of internal auditing can be approached through several methods. The table below summarizes the results of some empirical studies on the effectiveness of internal auditing:

Various previous research studies have examined the subject from different perspectives and in various contexts. We will examine them individually in the following sections to obtain a comprehensive understanding of the current state of knowledge in our research field (4).

Al-Twaijry et al. (2003): This study focuses on internal auditing in Saudi Arabian companies, highlighting a prevalence of compliance audits, insufficient resources and qualified personnel, as well as a lack of independence among internal auditors, leading to non-implementation of

recommendations by management. The researchers used institutional theory and a mixed-method approach for data collection, including questionnaires to internal audit directors, interviews, and responses from associates and audit firm managers. Independent variables examined included the independence of internal auditors, professional competence, the scope of internal audit, and internal audit management (5).

The conclusions indicate that internal auditing in Saudi Arabian companies primarily focuses on compliance rather than performance, with gaps in development, resources, and qualified personnel. Furthermore, the study reveals issues with the independence of internal auditors and frequent non-implementation of recommendations made by internal auditing.

Sarens & De Beelde (2006): They conducted a study that concluded, after qualitative inquiry and in-depth analysis, that top management's expectations and perceptions of internal auditing significantly influence the implementation of this function within any organization. They observed that when internal auditing meets the expectations of top management, the latter's perception of internal auditing improves, thereby strengthening support. This dynamic is generally what internal auditors expect from top management, as this support enhances their acceptance and, consequently, their effectiveness in their roles.

Mihret & Yismaw (2007): They studied elements that could have a significant impact on the effectiveness of internal auditing, following a case study conducted in a public sector higher education institution in Ethiopia. This analysis was based on a specially designed model. The identified factors included: 1) the quality of internal auditing and 2) management support, 3) organizational framework, and 4) audit client characteristics.

Their findings reveal that both the quality of internal auditing and management support have a significant influence on the effectiveness of internal auditing. Furthermore, the researchers suggest the need for future research to explore other variables that help understand the effectiveness of internal auditing (6).

Ahmad et al. (2009): They aimed to explore the importance of internal auditing in the public sector in Malaysia. Based on a questionnaire distributed to 99 participants, including internal audit executives and internal auditors, their findings pointed to several issues faced by internal auditing within the studied organizations, such as: 1) insufficient support from top management; 2) lack of knowledge and proper training in effective auditing methods for internal auditors; 3) non-implementation of recommendations from internal auditors by management, significantly impacting the effectiveness of the function; and 4) a negative perception of internal auditing, leading to its diminished contribution to organizational objectives. The researchers also

suggested the need for future research, both in the public and private sectors in Malaysia, using field survey methodology (7).

Cohen and Sayag (2010): They identified two explanatory perspectives of internal audit effectiveness. According to the first perspective, internal audit effectiveness is influenced by the alignment between audit practices and a set of universal standards derived from internal audit characteristics. Conversely, the second approach suggests that internal audit effectiveness cannot be objectively quantified; it rather depends on the subjective evaluation assigned to this function by management. In other words, the success of internal audit is essentially measured against the expectations set by all stakeholders involved (8).

Sudsomboon & Ussahawanitchakit (2009): The survey highlighted a significant positive correlation between audit strategy and audit effectiveness. In light of this finding, the authors concluded that internal auditing represents a value creator within the organization.

Ussahawanitchakit & Intakhan (2011): The results of the study indicated that audit professionalism and auditor independence have a positive influence on internal audit effectiveness. However, it was found that experience and ethics do not act as moderating factors in this relationship.

Unegbu, A.O & Kida, M. I. (2011): The survey revealed the importance of the internal audit function in the effective management of fraud and fraudulent activities within the public sector.

Abu-Azza (2012): In his doctoral thesis, he examined the factors influencing the effectiveness of internal auditing, particularly in the context of public companies in Libya, through qualitative study. These factors include independence, competence, audit scope, management support, career development, function status, stakeholder perception, as well as coordination and cooperation with external auditors, and awareness of the benefits of effective internal auditing within organizations.

Alzeban & Gwilliam (2014): They administered a questionnaire to Saudi Arabian executives, internal auditors, and external auditors. In a preliminary step, a pilot test was conducted with nine academics, fifteen heads of internal audit departments, and twenty-three external auditors to establish a potential association and correlation between five selected factors, based on literature review, perceived as relevant to the Internal Audit Environment (IAE5): (1) competence of internal audit staff; (2) size of the internal audit department; (3) relationship between internal and external audit; (4) management support; and (5) independence of the internal audit department. They focused on the effectiveness of internal auditing in the Saudi

Arabian public context, concluding that management support emerges as the most influential factor (9).

Lenz et al. (2014), in Germany, evaluated the effectiveness of internal audit by analyzing distinct elements, such as macro and micro factors, all of which influence internal audit effectiveness. The micro factors, namely organization, resources, processes, and relationships (10)

Macro-factors encompass three institutional influences. These influences include the obligation to comply with laws and regulations (coercive force), the adoption of professional practices advocated by the IIA (normative force), and the tendency to mimic other IAFs by drawing on the best practices observed in them as well as recommendations from consulting firms (mimetic force). The first part addresses the supply perspective by examining empirical literature in which internal auditors, particularly IA leaders (CAEs), describe how they assess their effectiveness. The second part focuses on the demand-side perspective, highlighting empirical literature that examines and analyzes how clients, users, and beneficiaries of services provided by the IAF perceive its value. Chambers (1992, p. 24) emphasizes that "The IA is a service to the business, and it is essential that the business as a whole determine the type of internal audit it should have." This idea is supported by Drucker (1985, p. 172), who asserts that "The quality of a product or service is not defined by what the provider puts into it, but by what the customer gets out of it and is willing to pay for."

Feghali & Matta (2014): They assessed the effectiveness of internal auditing by aggregating variables related to internal auditor competence, internal auditor independence, internal auditor objectivity, internal audit mission planning, and the interaction between internal and external auditing.

Miller & Rittenberg (2015): They define negative political pressures on internal auditing as the abuse of power by individuals in high positions in the hierarchy, with the aim of serving personal interests or protecting the organization by manipulating internal audit activities or reports. This may include limiting the scope of internal audit, suppressing findings, or undermining the credibility of the Chief Audit Executive (CAE). A survey of 500 internal audit executives worldwide revealed significant and recurring political pressure. These pressures take various forms, ranging from physical threats and wrongful terminations to more subtle measures such as downsizing or budget cuts for internal auditing, or even the demotion or early departure of the CAE. These tactics aim to stifle internal auditing and neutralize its ability to act. To counter such situations, internal audit executives must be savvy and politically astute to

anticipate and effectively manage political pressures. To mitigate these potential pressures and increase the chances of success for the CAE, it is essential to be competent, understand the organization's businesses, culture, and risks, and lead a strong internal audit department.

Delai & Omri (2016): In Tunisia, they found, based on the results of their study, that competence, independence, the objectivity of internal auditors, outsourcing of internal audit, and top management support significantly influence the effectiveness of the internal audit function.

Shbail & Turki (2017): They developed a model comprising five variables, namely: the autonomy of internal auditors, audit scope, top management support, collaboration of audited entities, and internal auditor satisfaction.

Stefano Azzali & Tatiana Mazza (2018): In Italy, they continued the work initiated by Lenz, evaluating the association between organizational measures, processes, and relationships with the external environment to measure the effectiveness of internal auditing within Italian companies. This study stands out for the use of the partial least squares technique. The results indicate that large companies, publicly listed companies, and those audited by the Big Four firms constitute significant incentives for the concept of internal audit effectiveness.

Ait Mouzoun & El mezouari (2018): They conducted an empirical study on the effectiveness criteria of internal audit functions in the context of the Moroccan public sector. They tested a model comprising five variables impacting Internal Audit Effectiveness (IAE): independence, competence, audit scope, management support, and interaction with the board of directors.

Future Perspectives: The results of these studies underscore the need to continue research on internal audit effectiveness, especially in developing countries.

This synthesis highlights the diversity of approaches and findings in empirical studies on internal audit effectiveness, providing a comprehensive view of the research field.

In the context of internal auditing in management, effectiveness is measured by the ability to assess and improve internal control processes. Effective internal auditing contributes to ensuring compliance with policies and regulations, identifying potential risks, and recommending corrective actions to strengthen risk management. This effectiveness often manifests through improved governance, increased transparency, and robust management of organizational activities.

2.3. Professional Approach to Internal Audit Effectiveness

From a professional standpoint, the IAASB (International Auditing and Assurance Standards Board) recognizes that quality auditing can be achieved when confidence in the auditor's

opinion on financial statements is based on sufficient, appropriate, and reliable evidence obtained by an audit team that:

- Demonstrates appropriate values, ethics, and attitudes,
- Possesses adequate competence and experience, with sufficient time to perform audit procedures,
- Applies a rigorous audit process and quality control procedures,
- Provides relevant and timely reports,
- Interacts appropriately with various stakeholders.

To ensure effective internal auditing in compliance with the international standards of the IIA (Institute of Internal Auditors), it is crucial to adhere to the established standards. Quality management and continuous improvement (Series 1000) involve a commitment to maintaining high standards throughout the audit process, utilizing external quality assurance activities to enhance objectivity, and following the IIA standard on quality assurance and continuous improvement.

In the performance of internal audit services (Series 2000), effective risk management guides audit work, with strategic planning of audit activities (Standard 2050). Audit findings are reported appropriately (Standard 2060), and specific reports on internal control, management control, and governance are provided (Standard 2061).

The nature of the work (Series 2100) requires respecting internal perspectives and policies (Standard 2110), implementing quality management (Standard 2120), and considering governance in audit work (Standard 2130) with specific interpretation (Standard 2130.A1).

Work programs (Series 2200) necessitate planning and documentation in accordance with standards (Standards 2200 and 2210), with reporting in accordance with standards (Standard 2220).

Qualification and competence (Series 2300) ensure the qualification of the engagement leader (Standard 2310), compliance with policies, and maintenance of work quality (Standard 2320), as well as possessing the necessary skills to perform audit engagements (Standard 2330).

Lastly, the professional attributes of internal auditing (Series 1200) include creating conditions conducive to the practice of internal auditing (Standard 1200), maintaining independence and objectivity (Standard 1210), and adhering to ethical principles (Standard 1220). By following these standards, internal auditing can ensure quality management, work compliance with standards, adequate expertise, thus contributing to the effectiveness and value-added of internal auditing within the organization.

3. Conceptual Model of Internal Audit Effectiveness

3.1. Relevance of the Topic

In a dynamic and complex environment, the need to ensure the effectiveness of internal auditing holds crucial significance for public institutions in Morocco. This necessity arises from these entities' desire to maintain increased transparency, promote sound governance, and proactively address the risks inherent in their activities. The implementation of a dedicated conceptual model for evaluating this effectiveness provides a methodical framework. It aims to explore the various facets contributing to the performance of the internal audit function within these institutions. Indeed, the quality of internal auditing has a strategic dimension as it helps build stakeholder trust, meet ever-evolving regulatory requirements, and optimize decision-making. The specificity of this model lies in its orientation towards Moroccan public institutions, emphasizing the importance of considering the specificities of their operational context. By assessing the quality of internal auditing, these institutions can better understand the specific challenges that affect their performance, identify necessary areas for improvement, and strengthen their internal control mechanisms. In summary, this conceptual model offers a systematic and targeted approach to evaluate the effectiveness of internal auditing, thereby contributing to the resilience and sustainability of public institutions in Morocco in an ever-evolving environment.

3.2. Identification and Formulation of the Internal Audit Effectiveness Assessment Model

In a dynamic context of modern management in Morocco, public institutions are facing socio-economic challenges and an increasing demand for transparency. At the core of these issues, the effectiveness of internal audit emerges as an undeniable strategic element. In the epistemological positioning of our research, we adopt a pragmatic approach aimed at solving concrete problems and generating knowledge useful for practice. Our mode of reasoning revolves around a thorough analysis of the parameters determining the effectiveness of internal audit within public institutions in Morocco.

This model systematically organizes the key elements influencing the effectiveness of internal auditing by integrating two categories of dimensions. The first category, **the internal dimension**, encompasses factors such as the skills and qualifications of internal auditors, the independence and objectivity of these auditors, the management of quality, and the resources allocated to internal auditing, organizational culture, as well as communication and collaboration within the organization. The second category, **the external dimension**, explores

factors such as the regulatory and normative framework, political pressures and external influences, the maturity level of governance and risk management, relationships with external stakeholders, and the evolution of the external context. The goal of this model is to provide a detailed and comprehensive view of the internal and external dynamics that shape the effectiveness of internal auditing. In particular, it offers Moroccan public organizations an opportunity to better understand, evaluate, and enhance the practices of this crucial function, thereby enhancing their ability to navigate effectively in a constantly changing environment.

1) Skills and Qualifications of Internal Auditors

Competence is an individual's ability to perform a function or task appropriately. According to Arena and Azzone (2009), competent auditors play a crucial role in providing advice, improving the internal control system, and offering consistent solutions based on their experience. Their competence also enables them to manage complex and conflicting situations effectively. Furthermore, the competence of auditors contributes to enhancing the recognition of their role within the organization. The authors emphasize that insufficient belief in the competence of internal auditors by their superiors can lead to the neglect of audit recommendations, resulting in a decrease in the effectiveness of internal auditing. Cohen and Sayag (2010) also stress the importance for auditors to adhere to continuing education requirements and professional standards issued by organizations such as the IIA. Several studies have demonstrated a positive and significant relationship between the competence of internal auditors and the effectiveness of internal auditing. Mihret and Yismaw (2007) concluded that technical competence and ongoing training of the internal audit team are essential prerequisites to ensure the effectiveness of this function. Interviews conducted as part of a study by Shamsuddin et al. (2014) highlighted that the lack of sufficient knowledge in an auditor can negatively influence the quality of audit reports, thereby impacting the effectiveness of internal auditing. Other research has also confirmed that high effectiveness of internal auditing is associated with the high competence of internal auditors (Mustika, 2015; George et al., 2015; Alzeban and Gwilliam 2014; Salehi, 2015; Arena and Azzone, 2009) (11). The quality of internal auditing in the Moroccan public sector depends on several elements, including academic qualifications, ongoing training, professional experience, certifications, communication skills, mastery of internal auditors' information technology techniques, and their ability to integrate internal auditing work. To assess the competence and qualification of internal auditors, it is essential to consider specific points of attention. Some competency models, including IIA frameworks, distinguish multiple levels of competence mastery.

Qualitative or quantitative indicators can be used to reflect the progress of acquiring competence, ranging from awareness to a higher level of mastery. International Professional Practices Framework's Standard 1210 outlines competency requirements for internal auditors. It emphasizes that internal auditors must possess the knowledge, skills, and abilities required to perform their individual responsibilities. Furthermore, the internal audit team as a whole must possess or acquire the necessary skills for their missions. The interpretation of competency includes the knowledge, skills, and abilities required for the effective performance of internal auditors' professional responsibilities. This includes an understanding of current activities, trends, and emerging issues, enabling the provision of relevant advice. Auditors are encouraged to demonstrate their skills by obtaining certifications such as the Certified Internal Auditor (CIA). Standard 1210.A1 highlights the importance of seeking the advice and assistance of qualified individuals if internal auditors do not possess the necessary skills. Additionally, Standard 1210.A2 specifies that internal auditors must assess the risk of fraud but are not required to have the expertise of a fraud investigator. Similarly, Standard 1210.A3 indicates the need for adequate knowledge of information technology risks but does not require expertise in information technology auditing. Standard 1210.C1 emphasizes that the chief audit executive must either decline a consulting engagement or obtain the assistance of qualified individuals if internal auditors do not possess the necessary skills. Standard 1220 addresses professional ethics, emphasizing that internal auditors must exercise the diligence and skill expected of a competent professional. Professional ethics involve considering various factors such as the scope of work, complexity, the effectiveness of governance processes, and the likelihood of errors. Finally, Standard 1230 highlights the importance of continuous professional education for internal auditors to continually improve their knowledge, skills, and abilities (12). Improvement and innovation, planning and execution of internal audit missions, personal skills such as communication, persuasion, collaboration, and critical thinking, technical expertise, management of the internal audit service, and adherence to professional ethics are all areas that contribute to these competencies. In light of the points discussed, we posit the following hypothesis: **the competence and qualification of the internal audit team have a positive influence on the effectiveness of internal auditing.**

2) Independence and Objectivity of Internal Auditors

Independence and objectivity remain crucial pillars in conducting quality audits, as emphasized by various authors and professional standards. Firstly, Flint (1988) and Sarens and De Beelde (2006) highlight independence as an essential element of the audit process, while Lee and

Stone's (1973) definition of independence is linked to the ability to assess evidence crucial for forming an objective opinion. Hierarchical positioning within the organization, as mentioned by Christopher, Sarens, and Leung (2009), is crucial for ensuring the independence of internal auditors, an idea reinforced by Stewart and Subramaniam (2010). Additionally, audit standards, including CRIPP Standard 1110, require that the chief audit executive be affiliated with an organizational level that enables the exercise of their responsibilities, balancing between reporting to top management and having sufficient independence from the entities audited (Cohen & Sayag 2010). This is in line with the importance of reporting directly to the board, as stipulated by the same Standard 1110, as a major determinant of the independence of the internal audit function (Chapman, 2001; Schneider, 2003). However, challenges arise, such as role ambiguity and the simultaneous performance of audit and advisory missions, exposing internal auditors to potential threats such as self-assessment (Hazami Ammar Sourour, 2016). These factors highlight the crucial importance of proactive management of ongoing conflicts of interest, auditor rotation, and building strong relationships with management while maintaining objectivity (Muttchler, 2013; Khalil Feghali, 2018; Mihret et al., 2007). In conclusion, the quality of auditing relies on an appropriate combination of independence and objectivity, in accordance with professional standards, while also requiring astute management of organizational and individual challenges. Considering the elements mentioned earlier, we conclude that the competence and qualification of the team have a positive impact on the effectiveness of internal auditing.

3) Management of Quality and Resources Allocated to Internal Auditing

The quality of internal auditing (IA) is defined by its ability to formulate conclusions and recommendations beneficial to organizations. According to Mihret and Yismaw (2007), this includes relevant planning, effective communication, and a broad definition of the scope of IA. To ensure this quality, the IA function must expand its scope to all areas requiring attention, appropriately planning through strategic plans, annual plans, and individual mission programs. Documentation of audit work is essential for assessing quality and ensuring compliance with predefined plans while providing adequate evidence. Effective communication with audited parties is also emphasized, accompanied by follow-up to ensure the implementation of recommendations. Simultaneously, international audit standards require auditors to conduct their missions objectively and in accordance with criteria of professional practice, contributing to systematic and disciplined improvement in risk management, control, and governance (Lenz and Hahn, 2015). The quality of IA becomes crucial not only to meet legal requirements but

also due to its potential impact on sensitive areas. Surveys, such as Ahmad et al.'s (2009), show that the majority of respondents consider IA quality as determinative of its effectiveness. Other studies confirm this idea, establishing a positive and significant correlation between audit quality and its effectiveness (George et al., 2015; Cohen and Sayag, 2010; Mihret and Yismaw, 2007). Furthermore, the management of quality and resources allocated to internal auditing relies on an integrated set of theoretical, empirical, and professional foundations. Theoretically, approaches such as Total Quality Management (TQM) and Quality Management Systems (QMS), including ISO 9001, provide a framework for continuous improvement. Empirical bases are shaped by experience feedback and the analysis of case studies, allowing organizations to learn from past successes and failures. On the professional side, standards from the Institute of Internal Auditors (IIA) and codes of ethics establish ethical principles and rules of conduct for internal auditors. Audit methodologies, such as risk analysis, guide the identification of high-risk areas, while technologies and tools, such as audit software and process automation, optimize operational efficiency. Together, these elements form a strong foundation for the implementation of quality and internal audit management strategies, promoting transparency, efficiency, and continuous improvement of organizational processes. Thus, it is reasonable to hypothesize that **the management of quality and resources allocated to internal auditing positively influences its effectiveness.**

4) Organizational Culture

Organizational culture emerges as an essential element in maximizing the effectiveness of internal auditing, and this complex relationship can be explored through various theoretical, empirical, and professional foundations. Organizational culture theories, such as integration theory, suggest that a strong and integrated culture promotes communication and collaboration, crucial aspects for the success of internal auditing. Similarly, shared values theory emphasizes that common values within the organizational culture can positively influence employees' perception and interaction with internal auditing. Empirical studies reinforce these theoretical notions by concretely examining the impact of organizational culture on internal auditing. The work of Alzeban (2015) demonstrates how specific organizational cultures affect employees' perceptions of internal auditing, highlighting significant variations between developed and developing countries. Research by Sarens and Abdolmohammadi (2010) explores the link between internal auditing professionalism and the dominant cultural context, revealing differences related to specific cultural traits. The need for a robust organizational culture is emphasized by professional standards, such as the International Standards for the Professional

Practice of Internal Auditing, which highlight its crucial role in facilitating the effectiveness of internal auditing. This notion is reinforced by best corporate governance practices, which emphasize the development of an organizational culture conducive to risk management, transparency, and accountability. While the Institute of Internal Auditors (IIA) does not present specific standards exclusively dedicated to organizational culture, the International Standards for the Professional Practice of Internal Auditing (IIA Standards) encompass general principles related to considering organizational culture in the context of internal auditing. The IIA Standards, particularly International Standards for the Professional Practice of Internal Auditing Standard 1000 – Purpose, Authority, and Responsibility, outline the general responsibilities of internal auditing, emphasizing the importance of understanding organizational culture to adapt the audit approach. Similarly, Standard 2110 – Governance emphasizes the need for internal auditors to have the knowledge and skills required to assess organizational culture and its impact on audit activities. Finally, Standard 2120 – Risk Management and Control focuses on the necessity of incorporating an understanding of organizational culture into the continuous improvement processes of internal auditing. While the IIA Standards do not specifically detail how to address organizational culture, they advocate a proactive approach where internal auditors consider this crucial aspect when conducting their missions. It is also emphasized that internal auditors can refer to other references and conceptual frameworks to guide their understanding and assessment of organizational culture. Key success factors in this relationship include strong leadership capable of positively influencing organizational culture in favor of effective collaboration with internal auditing. Open and transparent communication emerges as a key element reinforcing employees' trust in the internal auditing process. Additionally, training and awareness, integrated into organizational culture, are identified as significant levers to improve the effectiveness of internal auditing. In summary, a comprehensive understanding of the role of organizational culture as a determinant of internal auditing effectiveness requires a holistic approach. The incorporation of various theoretical perspectives, empirical evidence, and best professional practices is essential to optimize the effectiveness of internal auditing, especially in the specific context of public institutions. **Therefore, we support the idea of a positive correlation between the quality of internal auditing and organizational culture.**

5) Communication and Collaboration Within the Organization

Theoretical, empirical, and professional approaches converge coherently to highlight the fundamental role of communication and collaboration in the context of internal auditing. Davidson's communication theory, which emphasizes the inevitability and multidimensional

nature of communication, provides an essential conceptual framework for understanding the challenges related to information transmission. Similarly, strategic actor theory highlights the strategic importance of communication between internal auditors and members of the organization. Empirical studies, such as those by Davidson, Quinn & Hargie, and Golen, tangibly confirm the imperative of effective communication within the organization. In the Ethiopian context, Mihret and Yismaw (2007, p. 478) emphasize the crucial importance of communication by stating that even if the audit is meticulously planned and executed, the results may lose their relevance if the audit report does not exhibit a professional quality that encourages readers to take corrective actions in response to identified shortcomings.

Van Gansberghe (2005) adds an important dimension by asserting that assertive communication, highlighting the strengths and achievements of the audited entity before pointing out deficiencies, improves the perception of internal auditing by the auditees. He emphasizes that the auditor should not be perceived solely as a critic but rather as a professional who offers a balanced perspective.

In the same vein, professional standards from the IIA and recommended practices underscore the obligation of internal auditors to establish trust rules, adapt their communication to stakeholders, and foster constructive collaboration. Moving to the practical aspect, standard 2040 highlights the essential role of the chief audit executive in developing rules and procedures, emphasizing the need for transparent communication and close collaboration with internal stakeholders. Similarly, standard 2050 underscores the coordination and judicious use of external work, highlighting the importance of a coherent process and transparent collaboration to effectively integrate such work. Finally, standard 2060 emphasizes the crucial importance of periodic communication from the chief audit executive to senior management and the board, focusing on transparency and collaboration to ensure a thorough understanding of audit missions, risks, and results.

By combining these approaches, a comprehensive framework emerges that captures the complexity and crucial importance of communication and collaboration for the effectiveness of internal auditing. This framework reinforces the understanding of the interdependence between these elements, highlighting their direct impact on the quality and relevance of internal audit activities within the organization. **Thus, we support the idea of a positive relationship between the effectiveness of internal auditing and communication and collaboration within the organization, as formulated.**

6) Regulatory and Normative Framework

Institutional theory sheds light on how the regulatory and normative framework influences the effectiveness of internal auditing within public institutions (PIs). In this context, institutional theory posits that the institutional environment exerts a predominant influence on the development of organizational structures and practices. This theory suggests that organizations tend to conform to the standards and rules established in their institutional environment to gain social and organizational legitimacy.

Regarding the effectiveness of internal auditing in public institutions, institutional theory suggests that the standards, rules, and regulations of the regulatory and normative framework can shape internal auditing practices. Public institutions are often subject to specific regulations, and internal auditing must adapt to these requirements to be considered legitimate and effective. For example, government regulatory bodies establish standards and guidelines for internal auditing procedures in the public sector. Internal auditing must therefore align with these standards to ensure compliance and legitimacy in the eyes of stakeholders, including the government, citizens, and oversight bodies.

Regarding other relevant theories, the resource-based approach can also be applied to understand how internal resources, both material and immaterial, are mobilized within internal auditing to enhance its effectiveness. For example, resources such as specialized skills, advanced audit technologies, and well-defined processes can contribute to strengthening the effectiveness of internal auditing.

In summary, institutional theory offers insight into how the regulatory and normative framework influences internal auditing practices within public institutions, while the resource-based approach helps understand how internal resources can be mobilized to enhance this effectiveness. Other relevant theories can also be explored based on specific aspects of the internal auditing context in public institutions. The institutional and cultural environment in which internal audit services operate significantly influences the governance of public institutions (PIs) (Van Gils et al., 2008). Similarly, Usang and Salim (2018) highlighted the correlation between the institutional environment, internal auditing, and the performance of public organizations in Nigeria. Their findings demonstrate that the impact of the quality of internal auditing and internal controls on performance is systematically modulated by the institutional environment, thus determining how these two elements contribute to the outcomes of public enterprises. It is therefore crucial that internal auditing operates in a favorable institutional environment, as this function does not evolve in isolation. The assumption that

internal auditing adds value is based on the idea that this function is well supported and equipped to operate in an environment that promotes an ethical culture (Usang and Salim, 2018).

Baltaci and Yilmaz (2006) emphasize that internal controls and the internal auditing function alone are not sufficient to ensure the optimal performance of an organization. They suggest that other governance elements within the institutional environment play a crucial role in determining outcomes. This institutional environment encompasses various variables aimed at improving the effectiveness of functions, including government regulations, internal audit relationships, collaboration between internal and external audit, planning, mission statements, political interference, management commitment, and the ethical culture of the organization. The presence of these institutional variables will either enhance or limit the contribution of the internal auditing function to the governance of PIs.

The IIA (Institute of Internal Auditors) guidelines were significantly updated in 2017 under the title "International Standards for the Professional Practice of Internal Auditing." This revision specifically addresses the institutional framework through different standards. Standard 1000 emphasizes the role of internal auditing in evaluating and improving governance, including the analysis of the institutional framework, governance structure, and accountability mechanisms. Standard 1010 highlights the importance of independence and objectivity in internal auditing, with an obligation to refrain from activities that may compromise this independence. Standard 1110 states that internal auditing must be strategically positioned to positively influence governance, internal control, and risk management, taking into consideration the institutional framework. Standard 1130 specifies that the use of external resources by internal auditing must comply with organizational policies, considering the institutional context. Standard 1220 requires internal auditing to evaluate and demonstrate the effectiveness of its processes by integrating institutional aspects into the mission and organizational objectives. Standards 2050 and 2060 respectively encourage coordination with other assurance services considering institutional objectives and emphasize understanding the institutional technological environment, integrating relevant tools into the audit process (13). These updates reflect the ongoing commitment of the IIA to continuous improvement of the internal auditing profession, tailored to the evolving institutional and professional context.

7) Political Pressures and External Influences

Political pressures and external influences can have a significant impact on the quality of internal auditing within public institutions. When political pressures weigh on internal auditing,

this can lead to distortions in the auditor's responsibilities, potentially influencing conclusions and recommendations. For example, specific political demands may selectively steer the audit, emphasizing certain aspects at the expense of other crucial areas, thus compromising the objectivity of internal auditing.

Similarly, external influences, such as close ties with external stakeholders or pressures from external organizations, can also impact the quality of internal auditing. When internal auditing is heavily influenced by external interests, it may be tempted to moderate its conclusions or minimize certain issues to avoid potential conflicts. This external influence can manifest through specific requests aimed at steering the audit conclusions in a particular direction.

Overall, these political pressures and external influences can compromise the independence, objectivity, and integrity of internal auditing, leading to a decline in its quality. It is imperative that internal auditors resist such pressures, preserve their objectivity, and focus on conducting impartial and rigorous audits, in compliance with professional standards and best practices, regardless of political or external influences.

An interesting approach is proposed by Christopher et al. (2009), who argue that the independence of internal auditing should be assessed considering its relationship with both management and the board of directors collectively. They suggest that a balanced relationship with these two parties can ensure stronger independence.

In conclusion, the study emphasizes the need for a delicate balance between the involvement of internal auditing with management and the board of directors. Too much or too little involvement can compromise its effectiveness. Internal auditors must be aware of the potential risks associated with their dual role and seek an optimal balance to best serve the interests of all stakeholders.

The independence of internal auditors plays a crucial role in preserving the effectiveness of internal auditing (IA), especially in the face of political pressures and external influences. Without independence, audit reports may be influenced, thus compromising their utility in improving accountability and transparency in public organizations. According to Shamsuddin et al. (2014), the independence and objectivity of auditors are key elements in preventing financial scandals and fraud within public organizations (14).

Standard 1100, titled "Independence and Objectivity," emphasizes the crucial importance of the independence of the chief audit executive for the effective exercise of their responsibilities. They must have direct and unrestricted access to senior management and the board, while

avoiding assuming other tasks outside of auditing. This independence becomes even more essential in the face of political pressures and external influences.

Thus, independence emerges as a crucial determinant of the effectiveness of IA, clarifying the relationship of the internal auditor with the employer and managers. It creates a conducive working environment where auditors can conduct their missions objectively, shielded from political pressures and external influences, thereby ensuring the integrity of the audit process. Several studies confirm a positive and significant association between the effectiveness of IA and the independence of internal auditors (George et al., 2015; Dejnaronk et al., 2015; Cohen et al., 2010; Alzeban et al., 2014; Salehi, 2015). Mustika (2015) emphasizes that the lack of independence of auditors constitutes a barrier hindering the performance of the IA function, especially in the face of political pressures. Dellai and Omri (2016) highlight a positive and significant relationship between IA independence and its effectiveness, emphasizing the importance of the dual reporting of the chief audit executive in strengthening independence and improving the effectiveness of the internal auditing function, particularly in resisting external influences (15).

These challenges are supported by various theories and professional standards, including agency theory, which highlights potential conflicts of interest, auditor independence theory, which emphasizes the importance of maintaining rigorous independence, IIA standards that encourage independence and objectivity, and institutional theory, which explains how external pressures can influence organizational compliance with social and regulatory norms. In summary, these theories, empirical studies, and standards underscore the imperative of maintaining high standards of independence and objectivity in the practice of internal auditing despite external pressures. These findings reinforce the idea that the independence of the internal auditor is crucial, especially in a context of political pressures and external influences, leading to the formulation of: **political pressures and external influences impact the quality of internal auditing.**

8) Level of Governance and Risk Management Maturity

To concretely demonstrate the impact of the level of governance and risk management maturity on the quality of internal auditing, these three perspectives are combined. The theoretical foundations establish the essential conceptual framework, empirical studies provide tangible evidence, and professional aspects offer practical guidance to guide internal auditors operating in contexts where governance and risk management play a decisive role.

Theoretical Aspects: Corporate governance theories, such as agency theory and stakeholder theory, offer conceptual models to explain how governance impacts the quality of internal auditing. Agency theory highlights the relationships and conflicts of interest between stakeholders, emphasizing the importance of robust governance to mitigate these conflicts. Mature governance should establish a structure supporting the independence of internal auditing, thereby facilitating objective assessments of risks and controls (16).

Empirical Aspects: Empirical investigations have examined the impact of the level of governance and risk management maturity on the quality of internal auditing. A study conducted by Zain and Alzeban in 2020 in Saudi Arabia analyzed how corporate governance influences the effectiveness of internal auditing in the country's banks, revealing a significant impact of corporate governance on the effectiveness of internal auditing.

In a study by Chan and Vasarhelyi in 2018, the correlation between corporate governance and the adoption of information technology in internal auditing was examined. The results clearly indicate that corporate governance has a substantial influence on the use of information technology in internal audit practices.

A research conducted by Bédard and Gendron in 2010 explored the relationship between corporate governance and the independence of internal auditing, highlighting a significant impact of corporate governance on this independence.

Regarding the impact of risk management on the quality of internal auditing, a study by Simunic in 1980 evaluated how the implementation of advanced risk management practices affects the quality of internal audits, demonstrating a significant improvement associated with such practices.

An inquiry by Krishnan and Visvanathan in 2008 assessed how risk management strategies influence the performance of internal auditing, revealing a positive correlation between proactive risk management at the organizational level and the quality of assessments conducted by internal auditing.

Vasarhelyi and Halper analyzed in 1991 the impact of integrating risk management technologies on the effectiveness of internal auditing, indicating that the adoption of advanced technologies contributes to increasing the accuracy and coverage of internal audits.

Chenhall and Langfield-Smith examined in 1998 the influence of risk management-based management control systems on the quality of internal audits, revealing that organizations integrating such systems benefited from more effective internal audits.

The study by Ho and Wu in 2001 assessed how risk management strategies impact the reliability of information generated by internal auditing, emphasizing the crucial importance of proactive risk management in improving the quality of information provided by internal auditing. These research findings confirm the essential role of governance and risk management in determining the quality of internal auditing.

Professional Aspects: The maturity of governance and risk management plays an essential role as influencing factors on the quality of internal auditing. Rather than merely assessing governance, risk management, and control processes within the organization, internal auditing, in accordance with professional standards, aims to contribute to their improvement by adopting a systematic, methodical, and risk-based approach. The credibility and value of internal auditing are strengthened when internal auditors adopt a proactive approach, bringing innovative perspectives and anticipating future impacts.

Regarding governance (Standard 2110), internal auditing commits to evaluating and making recommendations to improve strategic and operational decision-making processes, monitoring risk management and control processes, promoting ethical rules, effective performance management, as well as communicating risk and control information. Coordination of activities and communication between the board, external auditors, internal auditors, other assurance providers, and management are also crucial aspects to evaluate.

In the field of risk management (Standard 2120), internal auditing must assess the effectiveness of risk management processes, ensuring that the organization's objectives are consistent with its mission. It must also ensure that significant risks are identified, evaluated, and that risk treatment measures are appropriate. Additionally, internal auditing must evaluate the timely communication of risk-related information.

The standards also encourage assessing the possibility of fraud (Standard 2120.A2) and urge internal auditors to cover risks related to mission objectives during consulting engagements (Standard 2120.C1). Using risk knowledge gained during consulting engagements to assess the organization's risk management processes is also recommended (Standard 2120.C2).

In summary, robust governance and mature risk management processes are essential for establishing an environment conducive to quality audits, thereby enhancing the credibility and value of the internal auditing function. Standards issued by organizations such as the Institute of Internal Auditors (IIA) provide practical guidance for internal auditors operating in such environments.

In summary, according to the three aspects, **the maturity of governance and risk management has a significant impact on the quality of internal auditing.**

9) Relations with External Stakeholders

Internal auditing, as a crucial function within organizations, operates in a complex environment where interactions with external stakeholders are of paramount importance. Beyond its traditional role of internal oversight, the effectiveness of internal auditing is intrinsically linked to its ability to meet the expectations and concerns of external stakeholders. This critical link between internal auditing and external stakeholders is expressed through a combination of theoretical, empirical, and professional aspects. From this perspective, this discussion explores how these different aspects influence the dynamic between internal auditing and external stakeholders, thereby shaping the quality and relevance of internal audit processes within contemporary organizations.

Theoretical Aspects: Agency Theory: According to this theory, external stakeholders can be considered as principals who have expectations towards the company. Internal auditing, as an internal monitoring mechanism, must be accountable to these stakeholders to ensure good governance. Corporate Social Responsibility (CSR) Theory: Companies are increasingly required to meet social and environmental expectations. Internal auditing can play a role in assessing compliance with CSR standards, which interests stakeholders concerned with sustainability (17).

Empirical Aspects: The study by Raghunandan et al. (2001) and Goodwin (2003) highlights the significant influence of the relationship between internal auditing (IA) and stakeholders, particularly the board of directors (BoD), on the effectiveness of IA. The results of these researches indicate that the composition of the BoD, especially its independence and the level of expertise in finance and accounting of its members, correlates positively with more active oversight of IA.

A major conclusion is that BoDs with external, independent directors possessing substantial expertise in finance and accounting have closer relationships with IA. These relationships are characterized by more frequent and extended meetings with the chief audit executive (CAE), facilitating informal access and potentially enhancing the independence and objectivity of IA. The study also emphasizes the importance of effective coordination between the BoD and IA, thereby strengthening oversight and the effectiveness of internal auditing.

Other studies, such as those by Arena and Azzone (2009a), confirm these results by showing a positive correlation between the effectiveness of IA and a close link between IA and the BoD, especially in an Italian context.

However, research like that of Rose and Norman (2008) and Norman et al. (2010) highlight potential negative implications when the chief internal audit executive (CAE) reports directly to the audit committee (AC), which could compromise the independence and objectivity of IA. Davies (2009) explores the working relationship between IA and the BoD, highlighting that the respected status of the IAF within the organization depends on the governance framework and the personalities involved. An intense working relationship between the BoD and the IAF is identified as a key factor in IA effectiveness.

In summary, these studies demonstrate the critical importance of the relationship between IA and stakeholders, particularly the BoD, as a major determinant of IA effectiveness. Effective coordination, support from top management, and a close working relationship are identified as key elements contributing to IA effectiveness.

Professional Aspects: The Institute of Internal Auditors (IIA) plays a central role in establishing internationally recognized standards that guide the practice of internal auditing. These standards provide essential guidance framework to internal auditors, thus ensuring the quality and relevance of their activities, particularly regarding managing relations with external stakeholders. Some key IIA standards illustrate this aspect: **Standard 2010 Planning:** Emphasizing the need for internal auditors to understand the organizational context, this standard highlights the importance of considering stakeholder expectations in planning internal audits. **Standard 2020 Communication and Approval:** This standard emphasizes the importance of effective communication with stakeholders, including transparent transmission of audit results, recommendations, and progress made, thereby enhancing trust and credibility of internal auditing. **Quality Control Standard:** Highlighting the responsibility of internal auditors in maintaining quality, this standard emphasizes the importance of aligning internal audit processes with external stakeholders' expectations to ensure the reliability and relevance of audit results. **Stakeholder Relations Standard:** This specific standard directly addresses managing relations with stakeholders, emphasizing the need for internal auditors to understand stakeholders' expectations and adjust audit plans and communication of results accordingly.

By following these standards, internal auditors are guided in their approach to effectively manage relations with external stakeholders, thereby reinforcing the value of internal auditing by aligning it with the overall needs and expectations of all stakeholders. This integration

contributes to improving the overall effectiveness of the internal audit function within the organization. **Therefore, we posit the existence of a positive correlation between the effectiveness of internal auditing and interactions with external stakeholders.**

10) Evolution of the External Context

The rapid evolution of the external context, marked by the rise of digital technology and the increasing importance of ESG (Environmental, Social, Governance) issues, has significantly influenced the practice of internal auditing (18). Theoretically, this evolution can be illustrated by the work of Lenz and Hoos (2023), who emphasize the need for internal auditors to broaden their repertoire to deal with a context shifting from complicated to complex. This theoretical transition involves adapting traditional audit approaches to more flexible and adaptable methodologies, allowing for better understanding of the increasing complexity of the external business environment.

Empirically, the growing integration of digital technology and ESG dimensions into the practice of internal auditing is observable. Tools such as process automation, advanced analytics, and cybersecurity measures have become essential elements to optimize the efficiency and accuracy of audit processes, as indicated in the literature. Additionally, auditing ESG reporting has become a central task for internal auditors, confirming the need to meet changing governance and accountability requirements. These practices are in line with professional standards, demonstrating the proactive adaptation of internal auditing to new realities of the external context (19).

In alignment with the recommendations of Lenz and Hoos, internal auditors have also expanded their investigative scope to anticipate and manage emerging risks related to ESG issues. This materializes through the assessment of climate, social, and reputation risks, and the implementation of appropriate risk management mechanisms. Thus, on a normative level, internal auditing is engaged in a proactive approach in line with professional standards, which encourage adaptability and consideration of contextual changes.

In summary, both theoretically, practically, and normatively, the evolution of the external context is illustrated by a transition towards more flexible approaches, increased integration of technology, and proactive response to ESG issues. Internal auditing, as a central actor, demonstrates its ability to evolve in tandem with the rapid changes in the external business environment, thus ensuring its effectiveness in a constantly changing environment. This is why we advance the assertion that the evolution of the external context positively impacts the effectiveness of internal auditing.

The summary model of factors affecting the effectiveness of internal audit.



Prepared: by the authors based on the review of the literature.

4. Conclusion:

Our analysis of the factors influencing the effectiveness of internal auditing within Public Institutions in Morocco has highlighted the crucial importance of considering a diversity of internal and external dimensions. The creation of the model we propose aims to offer a systematic and organized approach to assessing this effectiveness by integrating two categories of dimensions: the internal dimension and the external dimension.

The first category, the internal dimension, emphasizes factors internal to the organization that play an essential role in the success of internal auditing. These factors include the skills and qualifications of internal auditors, their independence and objectivity, the management of quality and resources allocated to internal auditing, organizational culture, as well as communication and collaboration within the organization. Each of these elements significantly contributes to creating an environment conducive to effective internal auditing.

The second category, the external dimension, highlights factors that extend beyond organizational boundaries and encompass elements related to the external context in which the public institution operates. These factors include the regulatory and normative framework, political pressures and external influences, the maturity level of governance and risk management (20), relationships with external stakeholders, and the evolution of the external context. These elements underscore the importance of considering external dynamics that can directly or indirectly impact the effectiveness of internal auditing.

By uniting these two categories of dimensions, the model we propose aims to offer a holistic perspective for assessing the effectiveness of internal auditing within Public Institutions in Morocco. Ultimately, the creation and application of this model could provide significant insights and guide decision-makers in strengthening internal auditing practices, thereby contributing to transparent, efficient, and responsible management of public resources.

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