

Internal Audit: What Definition in the Moroccan Public Context?

Houda CHAMMAA¹ and Khadija BENZAZZI²

¹ Phd Student at Faculty of Law, economic and social sciences Cadi Ayyad university
INREDD research laboratory
Marrakech, Morocco
hd.chammaa@yahoo.fr

²Professor and researcher at Cadi Ayyad university
The National School of Commerce and Management / Cadi Ayyad university
INREDD research laboratory
Marrakech, Morocco
Khadija.benazzi@gmail.com



Abstract – This study explores the role and objectives of internal audit in the Moroccan public sector through a qualitative approach, based on interviews with fifteen experienced internal auditors. The results reveal a profession in full evolution, characterized by increased professionalization and continuous adaptation to international standards, while taking into account local specificities. The study highlights the importance of internal audit's advisory role in terms of compliance and oversight, and as a key strategic partner for governance and improving the performance of public entities.

Keywords – Internal Audit, Public Sector, Morocco, International Standards, Professionalization, Advisory Role, Governance.

I. INTRODUCTION

The traditional role of internal audit, which focuses on monitoring internal control and ensuring compliance with financial standards, has evolved significantly in recent years. Currently, internal audit has undergone an increasing evolution towards a broader internal advisory role within the company's risk management function (El Ghordaf & El Khamlichi, 2021). This continued growth reflects an awareness of the added value that internal audit brings to the governance, risk management and internal control of organizations.

As already mentioned, this function is considered very important in management and governance strategies, as internal audit impacts both private sector entities and government structures. Its importance lies in its essential role within public entities, where it contributes significantly to compliance, risk management, and the affirmation of the principles of accountability, transparency and efficiency (Chou et al., 2019). The actions carried out by internal auditors are not limited to identifying risks and assessing organizational strengths and weaknesses; They also include the development of strategic recommendations to optimize the management of the entity.

As a result, internal audit plays a key role in making informed decision-making, improving resource management, and creating an environment that fosters organizational performance and excellence (Langer et al., 2021). It also contributes to the strengthening of the principles of good governance, which occupy a prominent place in the agendas of government bodies.

Nevertheless, the introduction of internal audit in the public sector is an essential lever for strengthening governance and improving administrative performance (Hartline, Long, & Zhang, 2024). According to Black et al. (2022), internal audit in public organizations poses a unique set of challenges, not limited to internal control oversight and regulatory compliance, but also extending to providing strategic advice and generating value.

Internal audit has recently become increasingly important in the Moroccan public sector. This development has revealed some notable confusions around the internal audit function, often misinterpreted by stakeholders as being synonymous with inspection or internal control, among others (Chammaa ,Benazzi 2023). Hence the following problem: **how can internal audit be precisely defined in the specific framework of the Moroccan public sector?**

The ambition of this study is to forge a consensual definition of internal audit within the Moroccan public sector, based on the perceptions and experiences of internal auditors operating in this field. It aims to highlight the role and objectives of internal audit, so as to accurately capture the particularities inherent in the Moroccan context.

II. LITERATURE REVIEW:

A. History of the internal audit function:

The historical development and evolution of internal audit traces a fascinating path, from its ancient origins to its strategic role in contemporary organizations. The work of Lee (1986) and Boyd (1905) offers enlightening perspectives on audit practices in the ancient civilizations of China, Egypt, and Greece. These companies laid the foundation for the principles of accountability and control, manifesting a timeless human quest for the accuracy and integrity of financial records and transactions. These archaic methods, while far removed from modern practice, lay the foundation on which the internal audit function is built today.

The twentieth century, particularly in the wake of the economic downturn of the 1920s, witnessed a significant transformation in the perception and expectations of internal audit. Renard (2017) highlights how the 1929 economic crisis in the United States was a catalyst for rethinking the role of internal audit, shifting it from a focus on financial compliance to a more holistic approach encompassing operational efficiency, risk management, and governance. This period marked the beginning of the evolution of internal audit into an integral function within organizations, contributing not only to financial auditing but also to improving effectiveness, efficiency and organizational governance.

This development reflects a growing recognition of internal audit as a key pillar of good corporate governance, capable of providing objective assurance and contributing to the creation of added value. Over the centuries, internal audit has transcended its initial role of auditing to become a strategic vehicle for continuous improvement, demonstrating its ability to adapt and respond to the changing needs of organizations and their environment.

B. Regulatory influences

Changes in the regulatory environment have significantly shaped the internal audit function. The Sarbanes-Oxley Act in the United States, for example, has broadened the scope of internal audit, intensifying its focus on internal control systems, risk management practices, and corporate governance. The establishment of international standards by the Institute of Internal Auditors (IIA) has further provided a comprehensive framework, highlighting professionalism, ethics and continuous improvement in the practice of internal auditing. These developments have transformed internal audit into a strategic partner within organizations, highlighting its adaptability and growing recognition of its importance in achieving organizational goals and managing risk in a complex business environment.

C. Evolution of internal audit

The preparation of our analysis incorporates insights from authors such as Lee (1986), Boyd (1905), and Renard (2017), among others, to offer a comprehensive overview of the historical milestones and regulatory changes that have shaped the internal audit function.

Period	Description
Before 1840	Early verification activities in ancient civilizations, focusing on honesty of fiscal responsibilities.
1840-1920	Establishment of auditing practices in parallel with the Industrial Revolution, with a focus on fraud and error detection.
1920-1960	Change to assessing the credibility of financial statements in the United States after the 1929 economic crisis.
1960-1990	Global economic growth and technological advancements leading to changes in audit approaches, focusing on systems due to the expansion of business transactions.
After 1990	Significant changes in the auditing profession driven by global economic expansions and financial scandals, extending auditing beyond the certification of financial statements to include business risk outlooks.

The context and evolution of internal audit demonstrates its critical role in corporate governance, risk management and control processes. From its beginnings in ancient civilizations to its current status as a strategic advisory role, internal audit has continually adapted to meet the changing needs of the business environment, regulatory requirements, and organizational goals.

The contributions of various authors provide a narrative that underscores the dynamic nature of internal audit and its indispensable value in promoting organizational effectiveness, efficiency, and integrity.

D. Key definitions of internal audit : lack of unanimity

The definitions of internal audit, although widely discussed and adopted by institutions such as **the Institute of Internal Audit and the Francophone Union of Internal Audit**, reveal a lack of unanimity that underlines the complexity and constant evolution of the discipline. This diversity reflects not only the differences in practices and expectations across organizational contexts, but also the growing importance of auditability in modern data governance systems.

Attitya et al. (2023) explore the implications of auditability in distributed systems, highlighting the need to track all read operations performed on a ledger to control access to data (Attitya, Del Pozzo, Milani, Pavloff, & Rapetti, 2023). Although focused on technical aspects, this work highlights the importance of auditability for governance and transparency, fundamental principles that are also at the heart of internal audit.

In addition, Saleiro et al. (2018) present Aequitas, a bias and fairness audit tool, illustrating the convergence between internal audit concerns and emerging challenges related to the use of artificial intelligence systems (Saleiro, Kuester, Hinkson, London, Stevens, Anisfeld, Rodolfa, & Ghani, 2018). This research highlights the need for a multidisciplinary approach to auditing, capable of addressing both traditional risks and those introduced by new technologies.

These perspectives suggest that, although internal audit has traditionally been associated with the oversight of internal control and compliance with financial standards, its role is now expanding into areas such as data governance and the ethics of automated systems. The lack of unanimity on its definition thus reflects not only the diversity of the contexts of application but also the evolution of organizational issues in the digital age.

ISO 9000:2000 defines internal auditing as a methodical, independent, and documented process that is essential for objectively assessing compliance with specified audit criteria. This definition emphasizes the importance of methodological rigour and independence, highlighting the role of internal audit in quality and compliance assurance.

Nguyen (2011) explores the adoption of industry best practices, including ISO 9000, to improve IT service management capabilities.

Internal Audit: What Definition in the Moroccan Public Context?

Pamungkas (2018) examines the audit of the SLiMS library management information system using ISO 9126, which, although different, shares with ISO 9000 the focus on quality and compliance. This study demonstrates the usefulness of ISO standards in assessing and improving information systems in a variety of contexts (Pamungkas, 2018).

This work illustrates how the principles of ISO 9000 version 2000 can be applied beyond traditional internal auditing, encompassing information systems auditing and IT service management. They highlight the universality and relevance of ISO 9000 to ensure quality and compliance in various fields.

Jacques Renard in "Theory and Practice of Internal Audit" (10th edition, 2017) presents internal audit from an accounting perspective, defining it as a mission aimed at verifying the application of fundamental standards and principles. This approach highlights the importance of accuracy, reliability of financial information, and compliance with standards, highlighting the role of auditing in identifying and assessing accounting misstatements (Renard, 2017).

The International Organization for Standardization (ISO) defines auditing as a methodical, independent and documented process, emphasizing the need for a structured approach to assess compliance with audit criteria and to continuously improve the quality of organizational processes. This vision is supported by academic work that explores quality management methods and techniques for audit processes, which underscore the importance of high-quality audit recommendations to support organizational activities (Popa, 2012).

The Institute of Internal Auditors (IIA) emphasizes the "added value" of internal audit, considering it as a vector of objective and relevant assurance that contributes to the effectiveness and efficiency of governance, risk management and control processes. This perspective highlights the consultative and proactive role of internal audit in the continuous improvement of the organization.

Similarly, Schreyer et al. (2022) explore the use of federated and continuous learning to detect accounting anomalies in financial auditing, demonstrating how advances in artificial intelligence can improve audit efficiency by adapting to dynamic changes and accumulating knowledge from multiple data sources (Schreyer et al., 2022).

These perspectives suggest that internal audit, by adopting advanced methodologies and technologies, can offer significant added value to organizations by strengthening governance, risk management and control processes, while highlighting the importance of a structured and regulated approach to maximizing the effectiveness and relevance of audits.

Table 1: Summary of the definitions and dimensions highlighted in the definition of internal audit:

Spring	Basic principles	Key elements
Institute of Internal Audit and Francophone Union of Internal Audit	Assurance, process improvement, value creation, systematic evaluation of risk management, control and governance processes.	Independence, objectivity, value creation, alignment with organizational objectives.
ISO 9000:2000	Methodical, independent and documented process, objective assessment of audit evidence, compliance with audit criteria.	Methodological rigour, independence, documentation, objectivity.
Jacques Renard (2017)	Accounting mission, verification of the application of fundamental standards and principles, accuracy and reliability of financial information.	Compliance with standards, accuracy, reliability, assessment of accounting anomalies.
International Organization for Standardization (ISO)	Methodical, independent and documented process, assessment of compliance with audit criteria, continuous improvement of process quality.	Structured methodology, documentation, continuous improvement, objective evaluation.
Institute of Internal Auditors (IIA)	Added value, objective and relevant assurance, contribution to the effectiveness and efficiency of governance, risk management and control processes.	Assurance, effectiveness and efficiency, advisory role, continuous improvement.

As illustrated in the table, the different definitions address the basic principles and key elements of internal audit, some of which were the same and the past.

E. Internal audit in the Moroccan landscape:

In the Moroccan landscape, the advent of internal audit was mainly driven by the branches of international companies, especially those active in the banking and financial field, initially focusing on accounting and financial issues. Following Morocco's independence, this approach was integrated into the management of public and semi-public entities, resulting in a legal obligation manifested through various names such as inspection, control and verification (ES-Salhi, 2013).

The decade of the 1980s witnessed a significant expansion of internal audit in Morocco, encouraged by a combination of factors, including the advent of trained Moroccan entrepreneurs and executives, the increased presence of both local and international external audit firms, and the adoption of recommendations from financial institutions at the national and international levels. Economic reforms and the restructuring of key sectors and companies, necessitated by fluctuations in the global economy, have been the main driver of this transformation. These adjustments have prompted the public authorities to formalize a legislative framework dedicated to internal audit, with the aim of refining the process and the related missions (ES-Salhi, 2013).

The advent of information technology has transformed the internal audit landscape in Morocco. The digitization of processes has allowed for more efficient and faster data analysis, increasing the efficiency of audits. Bahri (2018) reports that the use of advanced audit software and data analysis tools significantly improved auditors' ability to identify irregularities and make relevant recommendations. However, this digital transition also requires well-trained auditors who can handle these new technological tools.

The importance of ethics in internal audit has been strongly emphasized in Morocco, especially in light of various regional and international financial scandals. Zerouali and Jorio (2021) discuss the need to strengthen corporate governance through robust internal audit practices that not only detect fraud, but also foster a culture of transparency and integrity. Continuous training of auditors on ethical issues and governance standards is important to maintain stakeholder trust.

The desire to share knowledge and experience among Moroccan audit professionals led to the creation of the Moroccan Association of Internal Auditors and Consultants (AMACI) in 1985. This initiative, aimed at consolidating the field of internal audit in Morocco, was subsequently recognized at the European level with the integration of AMACI into the European Confederation of Internal Audit Institutes in 1997.

III. METHODOLOGY

This research takes a qualitative approach to explore the definition, purpose, and role of internal audit in the Moroccan public sector. The study focuses on the experience and perceptions of fifteen internal auditors from various public sectors in Morocco, in order to capture a nuanced understanding of the internal audit function in this specific context.

Study participants were selected through a targeted sampling methodology, aimed at including a representative range of internal auditors in terms of experience, industry, and geographic region. This sampling strategy ensures a diversity of perspectives and enriches the depth of qualitative analysis.

Table 2: Profile of Participants in the Study on Internal Audit in Various Moroccan Sectors

Participant	Industry	Experience (Years)
Participant 1	Public Health Sector	10
Participant 2	Higher education	8
Participant 3	Ministry of Transport and Logistics	12
Participant 4	Ministry of Economy and Finance	7
Participant 5	Ministry of Industry	15
Participant 6	Ministry of Economy and Finance	9

Participant 7	Ministry of Economy and Finance	11
Participant 8	Ministry of Agriculture, Fisheries, Rural Development, Water and Forestry	5
Participant 9	Ministry of Tourism, Handicrafts and Social and Solidarity Economy.	6
Participant 10	Minister of Energy, Mines, Water and the Environment with responsibility for the Environment	13
Participant 11	Ministry of Tourism, Handicrafts and Social and Solidarity Economy.	14
Participant 12	Higher education	4
Participant 13	Public Health Sector	16
Participant 14	Ministry of Industry	3
Participant 15	Higher education	7

This table offers a significant overview of the diversity of participants involved in the study on internal audit in Morocco, highlighting the range of sectors of activity and the breadth of professional experience. The variety of sectors, including both specific areas such as health, higher education, and public administration, as well as various sectors such as tourism and agriculture, enriches the study's perspective by incorporating a wide range of internal audit challenges and practices. The distribution of experience, ranging from 3 to 16 years, ensures a balanced analysis, drawing on both long-standing expertise and recent insights in the field of internal audit.

Data collection

Data collection is done via semi-structured interviews, allowing for an in-depth exploration of the experiences, perceptions, and practices of internal auditors. The interviews were designed to encourage participants to freely share their thoughts on the definition of internal audit in the Moroccan context, the associated roles and responsibilities, as well as the challenges and opportunities they encounter in their daily practice.

Data analysis

For the analysis of the data collected, we used the horizontal and vertical analysis matrix, combined with the use of NVivo software. This thematic analysis approach allowed us to systematize and organize the data in an efficient way, facilitating the identification of recurring themes and the highlighting of significant trends in the participants' speeches. NVivo enabled the management of qualitative data, which generated a rigorous analysis and visual illustration of the results.

The horizontal and vertical analysis matrix was used to cross-reference the data from the different interviews, which allows a systematic comparison of responses and the detection of patterns in the perceptions, objective and role of internal audit. This method facilitated an understanding of the multiple dimensions of internal audit in the Moroccan public sector.

IV. RESULTS

Interviews with internal auditors in the public sector in Morocco provided knowledge on the role, practices, and perspectives of internal audit in this specific context. The results are organized according to the main themes discussed in the interview guide.

A. Professional experience and context of internal audit

Interviews with internal auditors in the Moroccan public sector revealed a significant evolution of internal audit in the country, marked by professionalization and adaptation to international standards, while taking into account local specificities. This duality between the adoption of international standards and the adjustment to Moroccan realities was underlined by several participants.

For example, P1 noted: "Internal audit in Morocco has evolved greatly, integrating international internal audit practices while adapting to our unique context." This observation highlights the ability of Moroccan internal auditors to navigate a globalized environment while remaining anchored in their local reality.

P2 reinforced this idea by stating, "Although we follow international internal audit guidelines, each audit is an opportunity to reflect our specific cultural and organizational identity." This approach shows how Moroccan internal auditors customize audit methodologies to make them relevant to their work environment.

The importance of the historical evolution of internal audit in Morocco was also highlighted, with P3 explaining: "Internal audit is an embryonic function but one that remains evolving given the importance required by the State." This illustrates the dynamic evolution of internal audit in Morocco, where the support of the State remains very remarkable.

In addition, participants expressed optimism about the future of internal audit in the country. As P4 pointed out, "The future looks bright for internal audit in Morocco, with a trend towards greater professionalization and increased recognition of our strategic role, something that has been supported by the state and royal speeches." This positive outlook is shared by many internal auditors, who see their profession evolving towards an essential function in the governance and performance of Moroccan public entities and this is what goes with the state strategy that pushes to implement audit services.

Finally, the specificity of working in the public sector was highlighted, with P5 mentioning: "Internal audit in the Moroccan public sector is unique, requiring an in-depth understanding of the specificities of our governance and regulatory frameworks." This remark highlights the complexity and specific challenges faced by internal auditors in the public sector, requiring particular expertise and adaptability.

These testimonies of the participants highlight the complexity of internal audit in Morocco, which illustrates that this profession is constantly evolving to meet both international standards and local requirements, while anticipating a promising future marked by increased professionalization and a broader recognition of its essential role in the public sector.

B. Issues, challenges, and future prospects

In their reflections on the issues, challenges and future prospects of internal audit in the Moroccan public sector, the participants highlighted several essential points. Resistance to change, the need for continuous training and the need to strengthen the independence of the audit function were frequently cited as major challenges. However, despite these obstacles, there is a sense of optimism about the future of the profession.

One auditor expressed this duality by saying: "The main challenge remains the perception of our role, but I am optimistic about the evolution of internal audit. To add the ultimate challenge is the overlap of tasks an auditor cannot do internal control or management control" This quote captures the essence of the general feeling among internal auditors: although they face significant challenges, they remain positive about the ability of their profession to overcome these obstacles and gain recognition and added value within the public sector, But this auditor insists on the perception of the clear role of the internal auditor, which is above all not internal control or management control.

Another participant highlighted the importance of continuing education, stating: "Continuing education is very important to stay up to date with best practices and international standards. It's a challenge, but also an opportunity to constantly improve our skills." This perspective highlights the need for an ongoing commitment to learning and professional development to effectively navigate the evolving internal audit landscape.

Regarding the independence of the audit function, a third auditor shared: "Strengthening the independence of our function is essential to maintain the integrity and objectivity of our work. This is a challenge in the current context, but it is fundamental to the effectiveness of internal audit." This underlines the importance of independence for the credibility and effectiveness of internal audit, while at the same time acknowledging the challenges of achieving it.

In sum, although faced with challenges such as resistance to change, the need for continuous training, the need to strengthen independence and the concern for duplication of tasks carried out by the latter, Moroccan internal auditors remain optimistic about the future of their profession. They see these challenges not only as obstacles to be overcome but also as opportunities to strengthen the internal audit profession and increase its added value within the Moroccan public sector.

C. Moroccan definition of internal audit

In their efforts to articulate a Moroccan definition of internal audit, participants put forward a vision that encapsulates both the universal principles of governance, risk and control, and the importance of adapting to the particularities of the Moroccan context. This approach reflects a deep understanding of the internal audit function as intrinsically linked to Morocco's cultural, regulatory and organizational specificities.

One participant illustrated this perspective by saying: "For me, internal audit in Morocco is synonymous with a strategic partnership for governance and continuous improvement. It goes far beyond simple compliance; It's about working hand-in-hand with entities to strengthen their ability to manage risk and optimize their processes." This statement underlines the vision of internal audit not only as an audit exercise, but also as a key player in promoting good governance and efficiency in public organizations.

Another auditor reinforced this idea by adding: "Internal audit, in our context, must be flexible and responsive to the specific needs of our country. This involves a deep understanding of the unique challenges our institutions face and the ability to provide tailored solutions that address those challenges." This remark highlights the importance of adaptability and personalization in the practice of internal audit in Morocco, highlighting the need for an approach that is both global in its standards and local in its application.

Finally, a third participant expressed: "Integrating the elements of governance, risk and control while remaining faithful to Moroccan specificities is at the heart of our mission. This allows us to contribute significantly to the improvement of the entities we audit." This perspective encapsulates the essence of Morocco's definition of internal audit, where the balance between adherence to universal principles and attention to local particularities forges an internal audit practice that is both effective and relevant in the Moroccan context.

These testimonies reflect a vision of internal audit in Morocco as an essential function for good governance and the continuous improvement of public organizations, highlighting the importance of an approach that is both rooted in international standards and deeply aware of local realities.

D. Future prospects for internal audit in Morocco

Looking ahead to the future of internal audit in Morocco, participants expressed optimism about the evolution of the profession, highlighting in particular the growing importance of technology and the broader recognition of its strategic role within organizations. This vision for the future reflects a convergence towards a more modern and integrated internal audit practice that can respond to the complex challenges of today's organizational landscape.

One auditor shared his enthusiastic vision: "The future of internal audit is bright, with a shift towards more technology and better integration into organizational strategy. We are already witnessing a transformation where digital tools and data analytics are becoming central to our audit methodologies." This projection highlights the growing importance of information technology in improving the efficiency and accuracy of internal audits.

Another participant highlighted the strategic aspect of internal audit: "The recognition of our role beyond compliance, as strategic partners in governance and risk management, is changing the way we are perceived within organizations. This paves the way for an even more significant contribution from us." This perspective illustrates a shift towards a deeper appreciation of the advisory role of internal audit, recognizing its essential contribution to strategic decision-making and risk management.

In addition, a third auditor expressed his anticipation of increased professionalization: "I expect that the next few years will see an increase in skills and professionalism among internal auditors, accompanied by a further standardization of our practices on a national scale." This expectation reflects a movement towards a harmonization of internal audit practices in Morocco, with an emphasis on continuous training and the adoption of high standards.

These testimonies reveal a positive anticipation for the future of internal audit in Morocco, marked by increased adoption of technologies, a broader recognition of its strategic role and a continuous professionalization of the discipline. The participants envisage a profound transformation of the internal audit practice, aligned with global trends and adapted to the specificities of the Moroccan context, thus strengthening its added value within public organizations.

Internal Audit: What Definition in the Moroccan Public Context?

The following table summarizes the main findings of our study on the role and objectives of internal audit in the Moroccan public sector, based on the main themes discussed in the interview guide:

Theme	Key findings	Key quotes from participants
Professional experience and context	Significant evolution towards professionalization and adaptation to international standards, while taking into account local specificities.	<i>"Internal audit in Morocco has greatly evolved, integrating international practices while adapting to our unique context." - P1</i>
Audit practices and methodologies	Adoption of a hybrid approach combining international standards and strategies adapted to the Moroccan context.	<i>"We use audit approaches that are both holistic and customized for our environment." – Anonymous Participant</i>
Issues, challenges, and future prospects	Despite challenges such as resistance to change and the need for further training, the outlook for the future is optimistic.	<i>"The main challenge remains the perception of our role, but I am optimistic about the evolution of internal audit." - Anonymous participant</i>
Moroccan definition of internal audit	A definition integrating governance, risk, and control, underlining the importance of adapting to Moroccan specificities.	<i>"For me, internal audit in Morocco is synonymous with strategic partnership for governance and continuous improvement." – Anonymous participant</i>
Contributions to governance and performance	Fundamental role as advisors for the governance and improvement of the performance of public entities.	<i>"We are key advisors to governance, providing recommendations that actually improve performance." – Anonymous Participant</i>
Future prospects for internal audit in morocco	Anticipation of positive developments with increased integration of technologies and broader recognition of the strategic role.	<i>"The future of internal audit is bright, with a shift towards more technology and better integration into organizational strategy." – Anonymous participant</i>

This table summarizes the key findings of our study, highlighting the prospects, challenges, and evolutions of internal audit in the Moroccan public sector through the voices of participants. These results highlight the complexity and dynamics of internal audit in the Moroccan public sector, reflecting a profession in full evolution, facing challenges but also bringing significant opportunities for the governance and performance of public entities.

V. ANALYSIS AND DISCUSSION:

This study explored the role and objectives of internal audit in the Moroccan public sector through a series of interviews with experienced internal auditors. The results reveal a profession in full evolution, marked by increased professionalization and continuous adaptation to international standards, while taking into account local specificities. This section discusses the implications of these findings, compares them with the existing literature, and suggests avenues for future research.

A. Horizontal and vertical matrix:

The analysis of the horizontal and vertical matrix of our study on internal audit in the Moroccan public sector reveals significant insights into how internal audit practices, challenges and future prospects are perceived and experienced across different organizational and thematic levels. Horizontally, the study shows diversity in the application of internal audit practices, highlighting a specific adaptation to sectors such as health, education and transport. This adaptation is essential to effectively respond to the unique requirements and specific challenges of each industry, illustrating the flexibility and responsiveness of internal auditors to diverse operating environments. Participants shared concrete examples of how audit methodologies are

Internal Audit: What Definition in the Moroccan Public Context?

customized to maximize their relevance and effectiveness, reflecting a deep understanding of the specific contexts in which they operate.

Vertically, the analysis reveals a progression in the perception and impact of internal audit, ranging from day-to-day operations to the overall strategy of the organization. At the operational level, the focus is on compliance and process control, while at the tactical level, the focus is on risk assessment and the effectiveness of management systems. At the strategic level, internal audit is seen as a key partner in strategy formulation and decision-making, highlighting its role in governance and organizational performance. This progression demonstrates the growing importance of internal audit not only as a control function, but also as a key contributor to value creation and continuous improvement within Moroccan public entities. Participants expressed optimism about the future of internal audit, anticipating even greater integration of technologies and greater recognition of its strategic role in improving governance and organizational performance.

B. Nvivo analysis:



The word cloud generated from the study on internal audit in the Moroccan public sector reveals knowledge on the central themes and concerns of internal auditors. The terms "internal audit" and "public sector" logically dominate, highlighting the emphasis on exploring this critical function within Moroccan government entities. "Regulatory frameworks" and "organizational culture" also appear to be significant elements, reflecting the importance of the regulatory environment and internal culture in audit practice. "Future prospects" and "transparency" are highly valued, indicating an orientation towards improvement and open governance. Operational efficiency, risk assessment, and resource management are major practical concerns, while "strategic recommendations" and "accountability" highlight the advisory role and contribution to organizational responsibility. Innovation and local adaptation are less frequently mentioned but remain essential, suggesting a willingness to adopt new approaches while respecting the specificities of the Moroccan context. This word cloud offers a rich and nuanced overview of the key dimensions of internal audit in the Moroccan public sector, highlighting both current challenges and future opportunities.

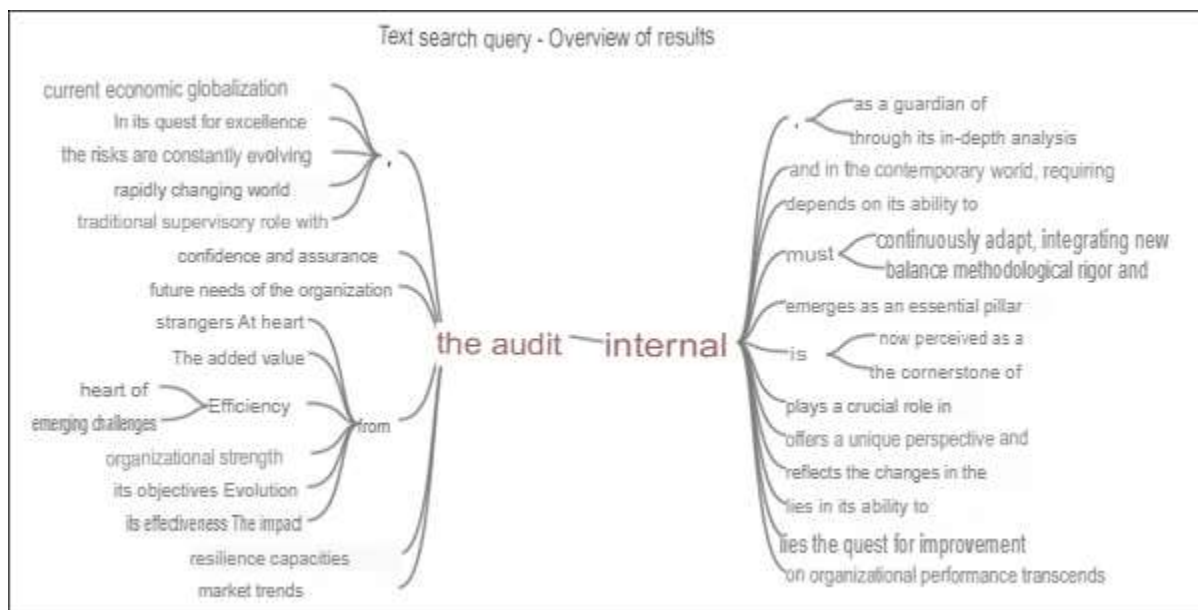


Figure 1 : Synapse on the Strategic Evolution of Internal Audit

This synapse by Nvivo reveals the dynamic transformation of internal audit within contemporary organizations. Through a series of author quotes, it highlights the growing importance of internal audit not only as a control and compliance mechanism, but also as a key strategic partner for governance and organizational performance. The themes reflect a recognition of the need for internal audit to adopt a proactive approach, characterized by innovation, adaptation to regulatory and technological changes, and a significant contribution to risk management and continuous improvement. This synapse effectively illustrates how internal audit has become a central part of organizational strategy, emphasizing its role in anticipating challenges and exploiting opportunities to strengthen the resilience and competitiveness of entities.

C. Discussion of the results:

1. Professionalization and adaptation to international standards

The participants highlighted a significant evolution of internal audit in Morocco, integrating international practices while adapting to the unique Moroccan context. This duality reflects trends observed in other national contexts, where harmonization with international standards coexists with the need for local adjustments to meet the specific requirements of each country (Alzeban & Gwilliam, 2014). The professionalization of internal audit in Morocco therefore seems to be following a similar trajectory to that observed in other regions, highlighting the importance of a comprehensive approach adapted to local realities.

2. Advisory role and contribution to governance

Moroccan internal auditors perceive their role as important and essential for good governance and improving the performance of public entities, aligning with the literature that recognizes internal audit as a strategic partner in organizational governance (Arena & Azzone, 2009). This study confirms the importance of internal audit's advisory role, not only in terms of compliance but also as a contributor to process optimization and strategic decision-making.

D. Challenges and futur prospects

Despite the challenges identified, such as resistance to change and the need to strengthen the independence of the audit function, participants remain optimistic about the future of internal audit in Morocco. This positive outlook is in line with research suggesting that current challenges can be turned into opportunities to strengthen the profession and increase its added value (Cooper & Robson, 2006). The anticipation of a move towards greater integration of technologies and an increased recognition of the strategic role of internal audit reflects a global trend towards the modernization and professionalization of the function (Roussy, 2013).

In conclusion, this study highlights the complexity and dynamics of internal audit in the Moroccan public sector, illustrating a profession that navigates between global requirements and local specificities. Internal auditors are key entities in promoting good governance and improving performance, in the face of challenges but also with an optimistic vision for the future. These findings contribute to a better understanding of the internal audit landscape in Morocco and open avenues for future research aimed at strengthening the profession and maximizing its contribution to governance and organizational performance.

VI. CONCLUSION AND LIMITATIONS

The overall conclusion of this article on "Internal Audit: What Definition in the Moroccan Context" highlights the significant findings and contributions of this qualitative research to the body of knowledge on internal audit, particularly in the Moroccan public sector. Through a series of in-depth interviews with experienced internal auditors, this study explored the practices, challenges, and future prospects of internal audit, offering an enriched understanding of its definition and role in the specific context of Morocco.

The results underline a profession in full evolution, characterized by increased professionalization and continuous adaptation to international standards, while taking into account local specificities. This duality reflects the ability of Moroccan internal auditors to integrate global best practices while effectively responding to the unique requirements and challenges of their environment. The study also reveals the growing importance of the advisory role of internal audit, not only in terms of compliance and control, but also as a key strategic partner for governance and improving the performance of public entities.

Challenges such as resistance to change, the need for continuous training, and strengthening the independence of the audit function are recognized. However, the outlook for the future is largely optimistic, with an anticipation of a move towards greater integration of technologies and increased recognition of the strategic role of internal audit. This promising vision of the future suggests a profound transformation of the internal audit practice, aligned with global trends and adapted to the specificities of the Moroccan context.

This research contributes to a better understanding of internal audit in the Moroccan public sector, offering valuable insights for internal audit practitioners and theorists. It highlights the importance of an approach that is both rooted in international standards and deeply aware of local realities, highlighting the essential role of internal audit in promoting good governance and continuous improvement of organizational processes.

In conclusion, this study highlights the complexity and dynamics of internal audit in the Moroccan public sector, illustrating a profession that navigates between global requirements and local specificities. Internal auditors promote good governance and improve performance, in the face of challenges but also with an optimistic vision of the future. These findings contribute to a better understanding of the current internal audit landscape in Morocco and open avenues for future research aimed at strengthening the profession and maximizing its contribution to governance and organizational performance.

REFERENCES

- [1]. Attiya, H., Del Pozzo, A., Milani, A., Pavloff, U., & Rapetti, A. (2023). The Synchronization Power of Auditable Registers. arXiv preprint arXiv:2308.16600. PDF
- [2]. Bahri, S. (2018). Technologies de l'information et audit interne: Impact et perspectives au Maroc. Marrakech: Academia Press.
- [3]. Black, E., Elzayn, H., Chouldechova, A., Goldin, J., & Ho, D. E. (2022). Algorithmic Fairness and Vertical Equity: Income Fairness with IRS Tax Audit Models. Lien vers le document
- [4]. Boyd, P. (1905). Early Practices of Auditing in Ancient Civilizations. [Nom de l'éditeur], [Localisation de l'éditeur].
- [5]. Chou, V. T., Kent, L., Góngora, J. A., Ballerini, S., & Hoover, C. D. (2019). Towards automatic extractive text summarization of A-133 Single Audit reports with machine learning. Lien vers le document
- [6]. Costanza-Chock, S., Harvey, E., Raji, I. D., Czernuszenko, M., & Buolamwini, J. (2023). Who Audits the Auditors? Recommendations from a field scan of the algorithmic auditing ecosystem. ACM Conference on Fairness, Accountability, and Transparency (FAccT '22). PDF

- [7]. El Ghazouani, S. (2020). *Audit interne et défis de conformité au Maroc*. Rabat: Presses Universitaires du Maroc.
- [8]. El Ghordaf, I., & El Khamlichi, A. (2021). Profit warnings and stock returns: Evidence from Moroccan stock exchange. 2nd International conference on organization's performance, May 2021, El Jadida, Morocco. [Lien vers le document](#)
- [9]. Hartline, J. D., Long, S., & Zhang, C. (2024). Regulation of Algorithmic Collusion. [Lien vers le document](#)
- [10]. Institut de l'Audit Interne et Union Francophone de l'Audit Interne.
- [11]. Institut des auditeurs internes (IIA).
- [12]. ISO 9000:2000. Norme internationale sur le management de la qualité.
- [13]. Langer, M., Baum, K., Hartmann, K., Hessel, S., Speith, T., & Wahl, J. (2021). Explainability Auditing for Intelligent Systems: A Rationale for Multi-Disciplinary Perspectives. [Lien vers le document](#)
- [14]. Lee, T. (1986). *The Evolution of Audit Thought and Practice*. [Nom de l'éditeur], [Localisation de l'éditeur].
- [15]. Nguyen, P. V. (2011). ITIL frameworks to ITD Company for improving capabilities in service management. arXiv preprint arXiv:1112.4017. PDF
- [16]. Organisation Internationale de Normalisation (ISO).
- [17]. Pamungkas, P. D. A. (2018). Library Information System Audit Senayan Library Management System (SLiMS) Using ISO 9126. arXiv preprint arXiv:1808.07234
- [18]. Pamungkas, P. D. A. (2018). Library Information System Audit Senayan Library Management System (SLiMS) Using ISO 9126. arXiv preprint arXiv:1808.07234. PDF
- [19]. Popa, M. (2012). Methods and Techniques of Quality Management for ICT Audit Processes. arXiv preprint arXiv:1201.0395. PDF
- [20]. Renard, J. (2017). *Théorie et pratique de l'Audit Interne (10ème édition)*.
- [21]. Renard, J. (2017). *Théorie et pratique de l'Audit Interne (10ème édition)*. [Nom de l'éditeur], [Localisation de l'éditeur].
- [22]. Saleiro, P., Kuester, B., Hinkson, L., London, J., Stevens, A., Anisfeld, A., Rodolfà, K. T., & Ghani, R. (2018). Aequitas: A Bias and Fairness Audit Toolkit. arXiv preprint arXiv:1811.05577. PDF
- [23]. Schreyer, M., Hemati, H., Borth, D., & Vasarhelyi, M. A. (2022). Federated Continual Learning to Detect Accounting Anomalies in Financial Auditing. PDF
- [24]. Zerouali, O., & Jorio, L. (2021). *Éthique et audit interne: Vers une gouvernance renforcée au Maroc*. Tanger: Éditions du Détroit.