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# Exploring the external factors affecting the effectiveness of internal audit in Moroccan public enterprises with commercial activities: A qualitative approach

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**Abstract:** The aim of this study is to identify the external factors affecting the effectiveness of internal auditing in public companies with commercial activities in Morocco. Using a qualitative methodology based on semi-directive interviews with 24 internal auditors, audit managers and managers, the study explored the challenges faced by these departments. The results highlight several key factors influencing the effectiveness of internal auditing. Top management support is essential to ensure auditors' independence and effectiveness. However, a lack of support from top management limits their ability to conduct effective audits. In addition, the human, financial and material resources allocated to auditing are often insufficient, which affects the quality of assessments. Implementation of audit recommendations is also a weak point: resistance to change and lack of follow-up prevent continuous improvement of practices. Finally, fluid communication between different departments is crucial, but is often hampered by organizational silos, limiting access to the information needed for a complete assessment. To improve the effectiveness of internal auditing, it is therefore necessary to strengthen managerial support, allocate more resources and improve inter-departmental communication and the implementation of recommendations.

***Keywords:*** *Efficiency, External factors, Implementation of recommendations, Inter-departmental communication, Internal audit, Public Enterprises, Resource support.*

## 1. Introduction

Internal auditing occupies a strategic position in the governance of modern organizations, constituting not only a control and compliance tool, but also an essential lever for organizational performance and risk management (Mahouat & al, 2024). In an increasingly complex global context, marked by growing interdependence of economic systems and a proliferation of crises, its role is becoming crucial in ensuring transparency, regulatory compliance and stakeholder confidence (Ali et al., 2022). International standards, such as those issued by the Institute of Internal Auditors (IIA, 2020), aim to standardize practices, while highlighting the need to adapt these to the specificities of local contexts. In this context, public companies are characterized by their dual mission: to satisfy citizens' expectations in terms of public service, while at the same time meeting the imperatives of profitability and competitiveness.

In Morocco, state-owned companies with commercial activities represent an essential pillar of the national economy, operating in strategic sectors such as energy, infrastructure and financial services (Gharrafi, 2022). These companies face growing demands for transparency and efficiency, amplified by institutional reforms aimed at modernizing their governance (Benamar et al., 2023). However, despite


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this recognition of the importance of internal auditing, its effectiveness remains a major challenge. Several studies highlight issues such as the independence of audit functions, limited access to advanced technological resources and insufficient auditor training (Bouaziz & Srairi, 2022). These factors, combined with external pressures such as heightened stakeholder expectations and regulatory changes, directly affect the ability of internal audits to contribute fully to organizational performance (Gharrafi & al, 2024).

International research shows that the effectiveness of internal audit functions is strongly influenced by external factors, including the stability of the regulatory framework, the adoption of emerging technologies and socio-political dynamics (Mihret et al., 2020). The integration of technologies such as artificial intelligence and data analytics has begun to transform the role of auditors, requiring rapid adaptation to meet new challenges (Ali et al., 2022). However, these transformations are not being uniformly adopted, particularly in emerging economies where institutional and technological constraints remain significant.

In the Moroccan context, the modernization of internal audit practices is part of a broader dynamic of economic and administrative reforms. These reforms aim to improve the performance of public companies by strengthening their governance and aligning their practices with international standards (Elhamma & Feudjo, 2019). Yet challenges specific to this context persist. The heterogeneity of organizational structures, budgetary constraints and the weight of organizational culture are all factors that complicate the implementation of reforms. These particularities make an in-depth analysis of the external factors influencing the effectiveness of internal audits in these companies essential.

With this in mind, this study sets out to explore the external dynamics shaping internal audit functions within Moroccan public companies with a commercial activity. The central question of this research concerns the identification of external factors that impact the effectiveness of internal audits (What are the external factors that impact the effectiveness of internal audit functions in public companies with a commercial activity?). In answering this question, this study aims not only to fill a gap in the literature, but also to propose practical recommendations adapted to the Moroccan context.

The expected results will contribute to a better understanding of the levers for enhancing the effectiveness of internal audits. This approach is crucial not only for improving organizational performance, but also for meeting the requirements of transparency and governance of public funds. In addition, it will make a significant contribution to academic research by providing a contextualized perspective on internal auditing in state-owned enterprises in emerging economies.

The implications of this research go beyond the Moroccan framework, offering lessons applicable to other emerging countries facing similar governance and internal audit challenges. It is part of a drive to promote more robust governance practices and encourage innovation in control mechanisms, by aligning public company strategies with international best practice while respecting local specificities.

## 2. Literature Review

### *2.1. Internal Auditing in Public Companies*

Internal auditing is a fundamental management tool in organizations, particularly public companies, where it plays a crucial role in improving governance and transparency (Sundgren & Sjöberg, 2016). According to the Institute of Internal Auditors (IIA, 2017), internal audit aims to evaluate risk management, internal control and governance processes, offering recommendations to improve organizational effectiveness. In particular, in Moroccan public companies, internal audit aims to strengthen public confidence in the use of public resources and contribute to the continuous improvement of management practices (Benazzouz & Oumhani, 2021).

Previous studies have shown that internal auditing in Moroccan public companies suffers from several challenges, including a lack of qualified human resources, appropriate technologies and institutional support (El Mghari & Louzir, 2018). In addition, political pressure and internal conflicts of interest can reduce the effectiveness of internal auditing in the public sector (Zarrouk, 2019).


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*2.2. The Effectiveness of Internal Auditing in Public Companies*

The effectiveness of internal auditing in public companies with market activities is a crucial area of study, as these companies face particular challenges in terms of governance, compliance, and transparency (Gharrafi & al, 2024). Internal auditing, which plays a vital role in assessing control, risk management and compliance processes, can be influenced by a number of external factors. These include the legislative and regulatory framework, political pressures, the economic environment, stakeholder expectations and the impact of technology.

The legislative and regulatory framework is one of the most decisive external factors in the effectiveness of internal auditing. Public companies are often subject to strict regulations governing financial transparency and the management of public funds. The complexity and multiplicity of applicable standards can make the task of internal auditors more difficult, especially when regulations change frequently or are ambiguous (Zhao et al., 2023). Compliance requirements can vary from country to country, and audits must constantly adapt to legislative changes, which impacts their effectiveness. According to Gendron (2021), public companies are often faced with increasingly complex regulations that place additional burdens on internal auditors. This is particularly true in contexts where international standards, such as International Standards on Auditing (ISAs), are imposed at national level.

Political pressure is another external factor influencing the independence and effectiveness of internal auditing. In the public sector, companies are often under the direct or indirect control of the state, which exposes internal auditing to political pressures that can compromise its objectivity. Frequent changes in management due to political changes can lead to instability in management practices, limiting the effectiveness of internal audits. Gould and Black (2023) point out that internal auditors may face conflicts of interest due to political influence on decision-making. Political intervention can disrupt the independence of internal auditing, making audit reports less reliable and more likely to minimize risks and non-conformities to satisfy the expectations of public authorities.

The economic environment is a key external factor which has a direct impact on internal auditing. In times of economic crisis or recession, public companies may be under pressure to cut operating costs, including internal audit expenses. Pressure-t-on budgets can lead to a reduction in the human and financial resources allocated to audit departments, which adversely affects the quality of audits carried out (Tan & Smith, 2021). Furthermore, risk management is becoming more complex in an uncertain economic environment, requiring internal auditors with specific skills and modern tools to identify emerging threats. In this context, internal auditors are often forced to adopt more reactive and less strategic practices, which can reduce their effectiveness (Wang & Zhang, 2022).

The expectations of stakeholders, such as shareholders, regulators and citizens, also exert significant pressure on internal auditing. These stakeholders are demanding greater transparency and accountability from public companies, particularly when it comes to the management of public funds. Public companies need to meet these expectations by increasing the rigor of internal audit processes, but this can bring challenges in terms of work overload and reporting complexity (Lukacs & Kovacs, 2023). Regulators, for example, expect internal auditors to report all irregularities and ensure compliance with applicable laws and standards. This can put internal auditors under pressure to report faster and more effectively, which in turn can reduce the ability to carry out thorough and objective audits.

The impact of new technologies also represents an increasingly influential external factor. The introduction of advanced technologies such as artificial intelligence, blockchain and big data analysis tools is transforming internal audit practices, offering opportunities for significant improvements in audit efficiency (Goh & Li, 2021). However, integrating these technologies presents significant challenges, particularly in terms of training internal auditors and adapting existing systems. According to Pereira and Tan (2020), the adoption of modern technologies requires investment in infrastructure and skills, which can be difficult to achieve in public companies with limited resources. On the other hand, the use of technology can improve auditors' ability to analyze large volumes of data and quickly identify risks, but this evolution also requires careful management of technological risks, particularly in terms of cybersecurity.


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## 3. Research Methodology

This research is based on a qualitative approach, widely used to explore complex social phenomena in their natural contexts. This method enables a better understanding of individuals' perceptions and behaviors, as well as social and organizational dynamics, based on rich, contextual data (Galletta, 2013; Charmaz, 2014). The qualitative approach is particularly relevant in the study of Moroccan public companies with market activities, where external relations and actors' perceptions influence the effectiveness of processes, including internal auditing (Saldana, 2016; Voss et al., 2016).

### *3.1. Search Method*

Qualitative research is renowned for its ability to provide detailed, contextualized descriptions of the phenomena under study. They enable a finer-grained understanding of social reality by examining participants' perceptions, experiences and meanings (Patton, 2015; Lincoln & Guba, 2017). This inductive method enables new concepts to be generated from empirical data, making it particularly suitable for studying complex phenomena in specific organizational contexts (Creswell, 2013).

### *3.2. Interviews*

Semi-structured interviews are a key tool for data collection in a qualitative approach, as they enable participants to share their perceptions and experiences while allowing the researcher to guide the interview with pre-prepared questions (DiCicco-Bloom & Crabtree, 2006). This method fosters in-depth data collection, making it possible to deal with complex subjects while maintaining a certain rigor in the organization of the interview (Seidman, 2019). It is particularly useful for exploring topics such as internal auditing, where individuals' perceptions may vary according to their role and experience.

### *3.3. Semi-Structured Interviews*

Semi-structured interviews are distinguished by their flexibility: although an interview guide is provided, the researcher can adjust the questions according to the answers given by the participants (Longhurst, 2016). This approach is often preferred in exploratory research, as it enables a deeper understanding of lived experiences while allowing a certain freedom of expression (Kvale & Brinkmann, 2015). However, this method requires careful preparation to prevent discussions straying from the central topic, which can affect the rigor of the data collected (Bryman, 2016).

### *3.4. Sample and Interview Procedure*

Sampling is a central element in qualitative research, as it enables the selection of a group of participants with experience relevant to the study objectives (Palinkas et al., 2015). In this research, a purposive sample was chosen, comprising 24 participants: 12 heads of internal audit departments and 12 internal auditors with at least three years' experience. These participants were selected from different Moroccan public companies to ensure a diversity of perspectives (Maxwell, 2013). Interviews were conducted face-to-face in the cities of Casablanca and Rabat, with durations varying from 30 to 35 minutes.

To ensure rigorous sampling, participants were selected according to specific criteria, including their role within internal audit departments and their practical experience in the field. This strategy yields rich, nuanced data on the internal dynamics of these companies (Fusch & Ness, 2015).

### *3.5. Analysis of Qualitative Data*

Data analysis was carried out using thematic analysis, a proven method for identifying, analyzing and reporting on emerging patterns or themes in qualitative data (Braun & Clarke, 2021). This approach enables key elements relating to internal auditing to be drawn out by identifying recurring and significant themes (Maguire & Delahunt, 2017). Thematic analysis follows several stages: familiarization with the data, coding, theme generation and interpretation of the results (Nowell et al., 2017).

The interview recordings were carefully transcribed to enable a detailed and rigorous analysis. This method enabled the identification of themes relating to internal audit management, corporate governance and contextual factors influencing internal audit effectiveness in Moroccan public companies. The analysis revealed key elements about audit management practices, challenges faced by internal auditors and performance improvement strategies (Braun & Clarke, 2021).

*3.6. Results*

This qualitative study, conducted through semi-structured interviews, has yielded rich and nuanced data on the challenges faced by internal audit functions in Moroccan public companies with commercial activities. These results highlight several external factors influencing their effectiveness, including top management support, organizational culture, auditors' independence, and their involvement in non-audit tasks. This analysis expands on these findings, incorporating participants' verbatims to illustrate the realities on the ground.

## 4. Top Management Support: A Decisive but Insufficient Factor

*4.1. Adequate Resources*

The lack of sufficient resources is a major obstacle to the effectiveness of internal audit functions. Internal auditors suffer from a lack of essential equipment such as computers, printers and vehicles. This shortage not only leads to a drop in productivity, but also to increased demotivation among auditors. The following verbatims illustrate this problem:

*"The basic environment is inadequate and our department lacks tools and supplies. For example, if we need printers or computers, we have to submit a request to the purchasing department. It takes a long time to get office supplies" (RAI4).*

This lack of resources also reflects a lack of prioritization of the internal audit department's needs by senior management.

*4.2. Funds Available*

The study revealed that most internal audit departments operate with insufficient or poorly allocated budgets, which limits their ability to carry out their missions effectively. For example, one participant testifies:

*"We have to use our own cars and pay for petrol with our own funds. If there was a special budget, it would at least help with gas costs" (RAI8).*

The lack of adequate funding reflects an often-weak relationship between management and internal auditors, compromising their effectiveness.

*4.3. Implementing the Recommendations*

Another recurring problem is the poor implementation of audit recommendations. Although audit reports are carefully prepared, their impact remains limited due to a lack of buy-in from other departments. As one auditor put it:

*"Senior management and other departments do not pay attention to recommendations or take internal audit recommendations seriously" (RAI5).*

This finding highlights a lack of awareness and interaction between auditors and other organizational players.

## 5. An Unfavorable Organizational Culture

*5.1. Scope of Work*

The scope of internal auditors' responsibilities includes a variety of activities ranging from inventory verification to performance assessment. However, this scope is often limited by a lack of understanding of their role and by organizational restrictions. One participant illustrates this constraint:

*"There are certain documents that internal audit staff cannot see and examine, such as contracts. These are considered confidential, so it's difficult for us to access them" (AI6).*

This limitation highlights the need to clarify the roles and responsibilities of internal auditors within the organization.

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*5.2. Trust*

A major obstacle is the lack of trust between internal auditors and other departments. Auditors are often perceived as control figures rather than strategic partners. For example:

*"Some audited departments are suspicious of internal auditors, seeing them as watchdogs. This affects our working relationship" (RAI4).*

This lack of trust has a direct impact on the cooperation and communication needed to ensure effective audits.

*5.3. Communication*

Poor communication between departments and internal auditors is another recurring problem. Some departments refuse to collaborate, particularly in the absence of clear directives from top management. A participant observes:

*"Our relationships with other departments are terrible; it's really bad. We have problems communicating and organizing meetings with other departments" (AI1).*

This lack of communication affects data access and complicates audits.

## 6. The Independence of Internal Audit Functions: Compromised Autonomy

*6.1. Freedom of Inquiry*

Restricted access to documents required for the audit considerably limits internal auditors' freedom of investigation. Problems of data confidentiality and lack of cooperation from audited departments exacerbate this situation. One auditor explains:

*"Other departments say the documents contain organizational secrets and refuse to provide them to us without a letter from the director" (AI7).*

These restrictions compromise auditors' independence and their ability to provide impartial assessments.

*6.2. Conflicts of Interest*

Internal auditors are often faced with conflicts of interest in their work, which can undermine their independence. For example, some auditors are reluctant to criticize human resources or finance departments for fear of losing promotion opportunities:

*"Internal auditors can't point out any errors when we examine the HR and finance departments. This could have an impact on promotions" (AI1).*

*6.3. Participation in Non-Audit Tasks*

In some PEAs, internal auditors are regularly assigned to non-audit tasks, such as temporarily replacing an employee in another department. A participant reports:

*"When one of our budget department employees was on vacation for a month, he was replaced by one of our internal audit department employees" (AI4).*

This practice compromises their objectivity and dilutes their strategic role.

## 7. Discussion

Top management support, particularly with regard to internal audit functions, plays a key role in the effectiveness of these functions. As Bednarek (2018) points out, the level of top management support is one of the most decisive external factors for internal audit effectiveness. Al-Twaijry et al (2003) confirm this idea, asserting that management buy-in and the quality of internal auditing exert a significant positive impact on the success of internal auditing in the organization. According to Onumah and Yao (2012), clear support from top management enables crucial missions such as reviewing regulatory compliance, assessing risk, overseeing internal control, and reviewing operational activities.

Adequate resources for the internal audit department are a key indicator of management support. Cohen and Sayag (2010) note that internal auditors' productivity is limited if they lack sufficient resources. Similarly, Brierley et al (2001) indicate that internal auditors need materials and equipment to carry out their assignments effectively. According to Drogalas, Karagiorgos and Arabatzis (2015), adequate resources enable auditors to make honest and impartial recommendations to management.

Despite these theoretical recommendations, the surveys conducted as part of this study show that many internal audit departments lack the necessary resources to carry out their assignments. For example, in some cases, management has failed to provide IT equipment or vehicles for field assignments, forcing auditors to use their personal equipment, which is not compensated for by reimbursements. Internal auditors' testimonies reveal that the absence of an adequate working environment, the lack of qualified personnel and the difficulty of obtaining office supplies within a reasonable time affect their efficiency (RAI4, RAI9).

The allocation of sufficient funds is another crucial indicator of top management support for internal audit functions. Previous studies (Alzeban & Sawan, 2013; Tackie et al., 2016) show that without an adequate budget, even the most independent internal auditors cannot carry out their assignments effectively. Drogalas et al. (2015) add that allowing internal audit departments to manage their own budgets can improve their effectiveness.

In this study, the majority of respondents expressed concern about insufficient funding, which has a direct impact on the effectiveness of their missions. The allocation of funds is often uneven, and in some cases, budgets approved by management are not respected. This situation has led auditors to finance certain expenses related to field missions themselves, such as using their own vehicles and paying for gas (RAI8, RAI7). However, some respondents stated that their departments received adequate funding from top management, which enabled activities to be carried out more efficiently (AI5).

An annual audit plan is essential for internal audit departments, as it defines priorities and assignments. Drogalas, Karagiorgos and Arabatzis (2015) and Van der Schyf (2000) emphasize that a strategic plan optimizes the efficiency of internal auditing. Interview data reveal that internal audit departments do indeed prepare annual audit plans, which are then submitted to senior management for approval. However, although the plans are approved, the results show that they are often not fully implemented, due to poor cooperation from other departments and a lack of regular follow-up with management (AI1, AI4).

Some interviewees reported modified or incomplete audit plans, and pointed out that ineffective implementation is often due to a lack of communication between departments (AI9, AI2). Lack of response and delays in accessing the necessary information from other departments considerably slow down the execution of audit assignments.

One of the clearest signs of top management support is the effective implementation of internal audit recommendations. Ait Mouzoun (2019) points to the implementation of internal auditors' recommendations as evidence of recognition of the value of internal auditing. Research by Mihret and Yismaw (2007) and Van Gansberghe (2005) shows that when management implements these recommendations, it reinforces the effectiveness of internal auditing.

Nevertheless, the study reveals that only 20-30% of internal audit recommendations are implemented. Reasons cited by respondents include an organizational culture that does not fully support internal audit activities, a lack of understanding of the role of internal audit and a lack of cooperation from other departments (RAI1, AI1, AI7). Some participants feel that recommendations are often ignored or considered insignificant by management, leading to an underestimation of the role of internal auditing in the organization (AI6, AI9).

The issue of trust between the internal audit department and other departments has been widely studied in the literature, and several authors assert that trust is a central element in the success of internal audit assignments. Dicle and Usluer (2016) and Lenz and Hahn (2015) emphasize that organizational trust, as well as good communication between different functions, are crucial to collaboration between internal audit and other departments. This work is in line with the findings of this study, which reveal widespread mistrust of internal auditors in Moroccan public companies. This mistrust, often combined with a misperception of the role of internal auditors as being solely focused on detecting errors, limits access to information and the cooperation needed to carry out audits.

On the other hand, Al-Twaijry et al (2003) have pointed out that cooperation between departments, facilitated by mutual trust, is essential for a successful audit assignment. However, in the Moroccan context, this type of cooperation seems to be compromised by trust issues, which constitute a major obstacle to the effectiveness of internal auditors. This tension is all the more marked when auditors are perceived as "watchdogs" or "spies" (RAI4, RAI9), a phenomenon which seems even more accentuated in an environment where the roles and responsibilities of internal auditors are not always clearly understood by other departments.

Interdepartmental communication is another fundamental element in ensuring the effectiveness of internal auditing. Previous research, including Mihret and Yismaw (2007) and Brierley et al. (2001), has shown that effective communication enhances collaboration between internal auditors and other departments, facilitating access to necessary information and the execution of audit assignments. These findings are also corroborated by the results of this study, where some departments report good relations and clear communication with internal audit, especially when a letter of support from management is provided.

However, other participants in the study pointed to a lack of awareness of the role of internal auditing on the part of other departments, which hampers communication and cooperation. This lack of understanding of the role of internal auditors and the absence of institutional support (letter of support) to legitimize their work are elements that have been reported in other studies, notably in the work of Mihret and Yismaw (2007), who stress the importance of management support to improve cooperation and communication. Indeed, Brierley et al (2001) and Mihret and Yismaw (2007) note that open communication and institutional support are essential factors for successful collaboration and for reducing tensions between audit departments and other departments.

The independence of internal auditors is another key issue in this study, which highlights several factors that undermine independence, including the appointment of internal audit managers, access to confidential documents and auditors' involvement in non-audit tasks.

The work of Bou-Raad (2000) and Cohen & Sayag (2010) reminds us that internal audit independence is an essential element in guaranteeing impartial and credible audits. According to Arena and Azzone (2009), independence is built through unrestricted access to documents and the ability of auditors to carry out their assignments without interference. This study reveals that, because internal auditors are appointed by management, their independence is often compromised. In addition, access to necessary information and documents is frequently restricted, and internal auditors are often met with resistance from other departments, especially when documents deemed confidential are involved.

This is in line with the findings of Shohihah, Djamhuri & Purwanti (2018) and Mihret and Yismaw (2007), who highlight that internal audit independence is also undermined by internal pressures, whether exerted by other departments or by management itself. Furthermore, auditors' involvement in non-audit tasks, such as replacing absent employees or performing administrative duties (AI1, AI4), is another factor undermining independence, an issue also raised by Cohen & Sayag (2010) and Alzeban & Sawan (2013). These practices compromise the objectivity of internal auditors, who are expected to focus exclusively on audit assignments and not on day-to-day management tasks.

Finally, the presence of conflicts of interest, especially when members of the audit staff have family ties with managers in other departments (AI2, AI3), is another aspect that undermines the independence of internal auditing. This issue was also addressed by Cohen & Sayag (2010) and Shohihah, Djamhuri & Purwanti (2018), who pointed out that independence is compromised when personal interests influence audit decisions.

## 8. Conclusion

The study of external factors affecting the effectiveness of internal auditing in state-owned companies with market activities highlighted key elements influencing the performance of internal audit departments. The results confirmed the crucial importance of top management support, allocated resources, implementation of recommendations and organizational trust in ensuring internal audit effectiveness. This support takes the form of tangible elements, such as the allocation of sufficient resources, a structured audit plan and recognition of the internal auditors' recommendations, which are essential for optimizing the effectiveness of assignments.

*8.1. Managerial and Scientific Contributions*

From a managerial point of view, this study highlights the need for public companies with commercial activities to strengthen inter-departmental cooperation and ensure better communication between internal auditors and other departments. It is crucial that internal auditors are perceived as partners and not simply as controllers, in order to avoid the distrust that hinders access to information and undermines audit quality (Dicle & Usluer, 2016). Managers must also ensure adequate resource allocation to enable auditors to carry out their assignments independently and effectively (Cohen & Sayag, 2010).

From a scientific point of view, this study contributes to the literature on internal auditing in the public sector, particularly with regard to the impact of external factors on audit effectiveness. The results enrich the work of Bednarek (2018), Al-Twaijry et al. (2003), and Mihret and Yismaw (2007) by showing that management support and the implementation of recommendations are key determinants of the effectiveness of internal audit departments in Moroccan public companies.

*8.2. Limits*

This study has certain limitations, mainly linked to the size of the sample and the diversity of the public companies selected. The sample of 24 participants does not allow the results to be generalized to the entire Moroccan public sector. In addition, the study is based on semi-structured interviews which may be influenced by the subjective perceptions of the participants, thus limiting the objectivity of the answers. Finally, the study was conducted in a context specific to Moroccan public companies, which may limit the transferability of results to other geographical or organizational contexts.

*8.3. Research Prospects*

Future research could expand the sample to include more public companies with market activities, to strengthen the external validity of the results. It would also be interesting to further explore the impact of organizational culture on internal audit effectiveness, and to examine the roles and responsibilities of internal auditors in other sectors, in order to study whether the challenges encountered in the public sector are similar to those encountered in the private sector. In addition, longitudinal studies could be conducted to analyze the evolution of internal audit effectiveness over time, in line with changes in management support and resource allocation.

This research thus paves the way for a deeper understanding of the relationships between internal audit, management and other departments, while highlighting the practical and theoretical dimensions that can guide the improvement of internal audit practices in Moroccan public companies and beyond.

## Copyright:



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