

Internal Audit in Moroccan Regional Education and Training Academies (AREF) : An empirical study

Mohamed ESSAOUDI¹ and Raja LOTFI²

¹ Management Department - Training Center for Education Inspectors (CFIE), 10050 – Rabat, Morocco.

² Higher Normal School (ENS) - Hassan II University, 20020 - Casablanca, Morocco.

Abstract: Over the past two decades, the Moroccan education system has been under considerable pressure to both improve the quality of its services, and make more effective and efficient use of the resources at its disposal. This context has necessitated the updating of the management control system and the introduction of internal control and audit systems. The latter has become a key device at the service of the national education system's top management. Our research studies the late implementation and gradual development of the internal audit function in Moroccan regional education and training academies (AREF), and analyzes its descriptive, structural, organizational and functional characteristics. Data was collected through a survey of financial affairs inspectors (IAF) in the internal audit units (UAI) of nine AREFs. The results of the study highlight the similarities and differences, as well as the gaps and shortcomings, that characterize internal auditing in AREFs compared with private organizations.

Keywords: Internal audit - Assessment - Education / Training - Audit practice.

1. INTRODUCTION

For almost two decades, the Court of Auditors (Court of accounts / courtesy of auditors) has consistently called on Morocco's regional education and training academies (AREFs) to develop internal control systems that would enable them to strengthen their management capabilities and improve governance in the national education sector. This summation was further reinforced following the constitutionalization of the principles of accountability, responsibility and empowerment (Constitution of 2011), following the wave of new public management [1].

So, after the proliferation of legislative texts making it compulsory to set up an internal audit (IA) structure in the public sector, the Court of Audit once again reminded the audited AREFs, the need for an internal audit and control system to ensure compliance with the principles of governance [2], management transparency [3], increased management autonomy [4] and decentralization of power [5]. What's more, the growing amount of regional expenditure on national education has put additional pressure on AREFs to control their budgets, steer their strategies and assess their management processes.

This situation was further exacerbated by the successive crises of 2007, 2011 and 2020, which significantly reduced public spending opportunities and, consequently, the budgets of many AREFs [6]. Reduced funding has increased competition between these AREFs, while at the same time requiring them to be accountable and demonstrate value for money, not only in teaching and training activities, but also in administrative and financial management activities [7, 8].

Traditionally, IA has been seen as a monitoring and compliance function, whose role is to guarantee the accuracy and reliability of accounting information and protect the organization's assets. Recently, the role of IA has evolved, undergoing two major changes [9]. Firstly, the corporate scandals that have sparked worldwide interest in corporate governance have focused attention on IA as a mechanism for ensuring accountability.

In this respect, internal auditors are seen as a possible response to external demands to align management interests with those of other stakeholders [10]. Secondly, internal audit has developed, in parallel, an increasingly strong operational orientation, expanding its scope beyond financial compliance to include the management of emerging risks [11] and new operating processes, such as new information and communication technologies (NICT), innovation [12], process digitization [13], artificial intelligence (AI) [14,15], crisis management [16,17] and management and retention of talent [18].

With this in mind, the present research aims to study the implementation of the internal audit function in Moroccan AREFs and to analyze its descriptive, organizational, structural and functional characteristics. To do this, we will first examine the nature and working methods of these internal audit entities. Then, we will analyze the qualification and skills profile of their internal auditors. Next, we will identify the nature of the areas audited. Finally, we will explore the types of audits carried out and their objectives.

2. LITERATURE REVIEW

In this brief literature review, we present a structured analysis of the main themes addressed in auditing research over the last ten years. We will attempt to identify what is currently known about internal auditing, as well as the gaps, grey areas and neglected variables in the field.

In doing so, we will organize our analysis around four axes: (1) the multiple contributions and impacts of internal audit, (2) the quality and effectiveness of internal audit (QAI / EAI), (3) the professional practice of internal audit and (4) the contributions & roles played by NICT and AI in audit activities.

Despite the profusion of literature published over the past decade, the first two themes are still under development, the third is insufficiently addressed, while the fourth is emerging.

The first area has been extensively studied, and the importance of the contributions made by internal auditing to organizations has been established and demonstrated by research, notably in the improvement of organizational governance [19, 20], in performance improvement [21, 22] and in risk management [9], [23].

The second area, internal audit quality and effectiveness, is the most widely studied in the literature. The determinants of audit quality have been identified through empirical and exploratory research [24, 25]. While the factors influencing audit effectiveness were established through qualitative studies [26].

In contrast, the third area of professional practice in internal auditing is insufficiently addressed. Thus, the professional component, covering audit methodology, techniques and tools, is neglected or poorly studied [27]. Yet this is the most professionalizing area.

In theory, there are no less than a dozen audit techniques and as many audit tools that the auditor can use during an audit assignment. Most research is descriptive in nature, attempting to explain what they are, what they're for and when to use them. But it does not explain how to use them in different processes [28], on different assignments [29] or in complex technological contexts [30].

Finally, the fourth area, concerning the contributions and roles that NICT and AI play in auditing activities, remains the current trend in auditing research [31]. Indeed, the introduction of Big Data and analytics into audit processes, backed by an aggressive digitalization strategy, have upended the practices and attitudes of auditors and auditees [32].

In general, the most widely used AI tools are data visualization tools, analysis tools "embedding" pre-parameterized generic controls and data analysis tools enabling control configuration and script development [33]. These AI tools are mainly used either for data reconciliation/cross-checking; statistical sampling; control

of the accounting record file or for searching for anomalies or atypia. The table below attempts to summarize the most frequently studied audit variables over the last decade.

Conversely, IA in national education is still an under-explored area of research [34]. Little recent research has been devoted to it (for example, [35 - 40]). For a long time, researchers were only interested in planning and control mechanisms such as budgeting [41, 42], process monitoring [43] and performance measurement [44]. This scarcity can probably be explained by the fact that the internal audit function in education is still young, and therefore struggling to gain in maturity and professionalism.

In Morocco, in addition to the profusion of regulatory texts making it necessary, or even mandatory, to set up an internal audit (IA) structure, the principles of accountability, responsibility and governance have been enshrined in the Constitution, paving the way for an inevitable process of implementation and development of the internal audit function.

TABLE I. MAIN VARIABLES STUDIED IN AUDITING OVER THE LAST TEN YEARS

Variables studied	Authors
The impact of internal audit on organizational governance.	[19, 20], [45 - 48].
Conditions for the successful professionalization of internal audit in the public sector.	[49, 50].
The contribution of internal audit to risk management.	[9], [23], [51 - 54].
The contribution of internal audit to organizational performance.	[21], [55, 56].
The audit standardization process.	[57 - 60].
Audit effectiveness and its determinants.	[21], [26], [61 - 69].
The impact of blockchain on audit practice.	[70 -74].
The introduction of Big Data and analytics into audit practice.	[75 -78].
Implementation of the financial and accounting audit function.	[59], [79, 80].
Assessing audit quality and its determinants.	[24, 25], [81 - 84].
Robotic automation of processes.	[85 - 88].
Contribution and role of NICTs in auditing activities.	[12], [89, 90].
The effect of robotization, automation and digitalization on auditing activities.	[13], [33], [91 - 93].
The emergence of artificial intelligence in auditing.	[94 - 99].
Future prospects for the function and scope of auditing.	[100 - 103].

3. MATERIALS & METHODS

Data collection was based on a questionnaire survey. An online questionnaire was sent to the financial affairs inspectors (IAF), regional coordinating inspectors (ICR) and administrative managers (RA) of the audit units of nine

AREFs. The questionnaire is based on five short sections, concerning (1) the structural and descriptive characteristics of the internal audit unit (UAI); (2) the UAI's mode of operating and work organization; (3) the qualification and skills of the human resources mobilized; (4) the management areas audited in the AREFs and (5) the nature of the internal audit assignments carried out and their objectives pursued.

The design of the study was based on questions that the target respondents (inspectors and IAU administrative managers) could easily answer, and which limited possible framing effects. In addition, the questionnaire was tested in two AREFs before being distributed to the entire sample. The pilot test led to a number of modifications aimed at making the questions shorter, clearer and easier to understand. Thirty-three questionnaires were collected, with a response rate of 87.6%. Table 2 shows the descriptive characteristics of the AREFs and the target IA units, in terms of size and geographical location. Size was measured in terms of the number of provincial directorates, the total number of schools, the number of school pupils (pre-school cycle, primary education cycle, college secondary education cycle, qualifying secondary education cycle, education-training management cycle), and the number of staff (teaching staff, administrative staff and inspectors).

As suggested by Neusy and al. [104] and Bornand & Feraud [105], the existence of non-response bias was tested by comparing the responses of the first and last respondents. The existence of statistical differences between the two groups was tested using the chi-square test (categorical variables) and the t-test (continuous variables). There was no significant evidence of non-response bias.

TABLE II. DESCRIPTIVE STATISTICS.

Size	N. AREF	% AREF	Location	N. IAU	N. Internal Auditors
Small	02	22.22	South	02	07
Medium	04	44.44	Center	04	13
Large	03	33.33	North	03	13
	09	100%	----	09	33

4. RESULTS & DISCUSSION

The following sections present and discuss the results of the statistical analysis carried out on the data gathered for this study.

A. Presence of a dedicated IA structure

The first factor considered to characterize interest in the IA function is the existence of a formal internal audit structure within Moroccan AREFs. We noticed that all the AREFs we approached have a regional IA unit, which can be assimilated to a "service".

The AREF is administered by a board and managed by a director. The IAU, on the other hand, is headed by an administrative manager, often an administrator or rarely a financial affairs inspector. The IAU reports directly to the

AREF Director. Admittedly, its hierarchical position within the organization gives it a certain functional autonomy, but also a very relative independence which will influence the quality and credibility of its reports.

Indeed, the AREF Director's power to appoint and dismiss the head of the IAU would compromise the principles of objectivity, impartiality and neutrality of all audit assignments [63]. Thus, recent studies have reiterated the importance, for the internal audit entity, of having an appropriate reporting line to ensure IA's independence [82], and enable auditors to make objective judgments, free and unencumbered by external influence or interference [81].

Other researchers have also asserted that internal auditors with a strong sense of security at work are more able to properly carry out their investigative and auditing missions with complete impartiality, and to express their opinions without fear of sanction [82]. The independence of the internal audit function therefore remains under threat as long as decisions on recruitment, appointment and dismissal of the head of internal audit are under the sovereign authority of the AREF director (top manager of the audited entity).

The introduction of IA in Moroccan AREFs is fairly recent. The process has been slower and less formalized. Prior to 2011, there was no experience of a more or less structured internal audit practice within AREFs. Only the large, strategic public organizations, such as ODEP (Port Operating Office) and ONDA (National Airports Office), had internal audit structures. Initially, they were introduced in AREFs in 2012, on an experimental basis as internal audit units. They were then established by law in 2016 as autonomous units. Their functional rehabilitation has also been slow and gradual, as education sector reforms have progressed.

This implementation of internal audit followed AREF's consecration as a public establishment governed by law n°7-00, then by decree-law n° 2.23.781. It anticipates AREF's probable transition to optional management accounting, in addition to its obligatory general accounting.

This accounting changeover, which was to be drawn up and controlled in accordance with accounting standards applicable to private companies, required reinforced internal auditing in order to succeed. On the other hand, the provincial departments, which are the decentralized entities of the AREFs, have no provincial structures dedicated to internal Audit. This could weaken the vertical decline of internal control and audit systems at local level.

B. IAU characteristics

With regard to IAU characteristics, the analysis focused on five points: (1) IAU organization and working methods; (2) qualifications and skills of internal auditors; (3) management areas audited, (4) typology of audit missions carried out and (5) objectives of audit missions within AREFs.

1) IAU organization and working modes

According to our interviewees, IAFs report to the provincial director in 87% of cases (as first line manager) and to the AREF director in 13% of cases (as second line manager). This hierarchical doubling creates functional interference that undermines the effectiveness of IA missions [21], the coordination of work between regional and provincial levels [105] and the quality of IA reports [82]. The planning of internal audit missions, in particular the annual action plan, is carried out at regional level (at the IAU), according to the Ministry's strategic orientations, regional priorities and AREF specificities, without any prior involvement of the IAF or provincial management.

In principle, IAU members are expected to play the role of an audit committee and not merely administrative managers under the aegis of the AREF Director. They are required to :

- Examine and approve proposals from IAFs for internal audit missions related to programs and strategic orientations.
- Draw up and approve a specific AREF internal audit charter and ethical code.
- Review and validate internal audit findings relating to financial reporting, internal control and compliance with laws and regulations.
- Monitor and assess the performance of the internal audit activity through periodic reports prepared by the IAU.
- Ensure the effectiveness of the internal control system of AREF and attached Provincial Directorates (PDs) [106].
- Examine the quality of internal audit reports and the feasibility of corresponding action plans, in order to assess the relevance of recommendations [83].

In sum, the IAU should see itself as an audit quality assessment board [107] and as a communication tool between auditors and AREF management. Moreover, the average annual number of IA missions hardly exceeds 13 per IAU. The average duration of IA missions is two days. 71% of IA teams consist of just two auditors. At first glance, the number of missions seems very low. But if we consider the scarcity of IAFs per AREF and the inadequacy of administrative staff within the IAU, then the means justify the results. Also, IAFs recalled to the rescue have other missions and tasks to take on at local level, and are therefore not always available. Similarly, the average duration of each mission depends on several contextual parameters, namely the purpose of the mission, the management process to be audited, the number of auditors in the team and the nature of the mission [80].

2) Qualifications and skills of internal auditors

IAUs are generally very short of human resources. Each of them has only 2 to 5 full-time executives. These regional structures (IAUs) conduct their internal audit action plans,

often backed up by IAFs attached to the provincial directorates, whose missions and tasks cover inspection, audit, supervision of new managers and trainee inspectors, control and evaluation of managers and schools, and research and training in finance and accounting.

Indeed, before becoming an inspector, all IAFs (n=723) had previously been managers of material and financial services at local and provincial level for a minimum of six years. 33% (n=152) of them are graduates of the training center for education inspectors (CFIE) in Rabat, having validated internal audit training modules. In addition, 54% of IAFs have a bachelor's degree (in law, economics, management, etc.), 37% have a master's degree and 9% have a PhD.

If our interviewees seem qualified enough, then they are competent enough, since they have at least five years' proven professional experience as financial affairs inspectors, and a track record of at least forty IA missions.

Analysis of the qualifications and skills of internal auditors is essential to ensure that they are able to provide relevant advice on improving the control and risk management system [52], conduct effective [62] and quality audits [84], suggest coherent recommendations based on their initial training and previous experience, and manage complex or conflictual situations [108]. For our respondents, six main skills are perceived as being important for a successful internal audit mission. These cover a wide range of areas (Table 3).

TABLE III. NATURE AND RANKING OF SKILLS PERCEIVED AS IMPORTANT BY IAFs.

Skills classification	Category	Explanation
Methodological	Know how to do well.	Procedural knowledge of how to carry out the various stages and phases of an IA mission...
Financial & Accounting	Technical and operational knowledge. (Knowledge-savvy)	Bookish and technical knowledge of a specific scientific field.
Legal		In-depth knowledge of legal, legislative and regulatory texts.
Statistical		Mathematical knowledge of data extraction and analysis, and use of data processing software...
Communication	Relationship with others.	Active listening skills, good mastery of communication tools, ability to convince ...
Cognitives & Intellectual	Know how to be.	Rigorous analytical skills, Critical thinking, Ability to summarize orally and in writing, Writing and argumentation skills.
Other	Multiple professional experience	Specific knowledge of the business sector, particularly education and training

Analysis of the data indicates a successive prevalence of three skill categories among respondents: methodological skills, financial and accounting skills, and legal skills. And there are only very limited differences according to AREF size and geographical location (table 4).

TABLE 4. SKILLS SCORE BY AREF SIZE AND GEOGRAPHIC AREA, ACCORDING TO INTERNAL AUDITORS.

Skills/ Score	Mean (1-5)	Small	Med	Large	North	Center	South
Metho-dolo	3.83	3.50	4.00	4.00	4.63*	3.66	2.25
Fin. & Accou	3.66	2.50	4.00	4.50*	3.00	4.00	4.00
Com	3.33	2.50	3.00	4.50*	3.75	3.57	4.50
Legal	3.16	2.56	3.62	3.30	3.33	3.50	3.25
Stat	3.00	2.50	3.50	3.00	3.50	3.15	2.75
Cogni & intell	2.33	2.00	2.50	2.50	1.00	2.00	2.00
Other	1.75	1.00	2.25	2.00	1.50	1.50	2.50

In particular, financial and accounting skills are more important for auditors in large AREFs than in small and medium-sized AREFs. This finding confirms that the "financial and accounting" trend that has characterized internal auditing in the private sector is also evident in the education and training sector [59]. At the same time, communication skills are more paramount for auditors in large AREFs than in small AREFs. Indeed, the auditor is required to communicate with the strategic and operational managers of the audited entity, as well as with the members of his or her audit team. Communication during audit missions is essential, and is the subject of an auditing standard (SAS 114). This standard aims to ensure that the auditor :

- Clearly states the objectives, purpose, duration and area to be audited.
- Establishes a dialogue with management and auditees in order to obtain relevant information from them and, above all, to pass on his observations and the conclusions of the audit mission.

Good communication enables the auditor and the auditees to have a clear understanding of the issues, objectives and conclusions of the audit mission. In this way, the auditor can draw relevant conclusions, to which the auditees will more readily adhere [109]. Effective dialogue also enables the auditor to build a relationship of trust with the auditees, while maintaining his independence and objectivity.

On the other hand, methodological skills are more highly valued by auditors from AREFs in the north than those from AREFs in the south. This observation can be justified by two facts. Firstly, AREFs in the north are larger in size, structure (number of provincial directorates, number of schools), budget and staff (number of pupils enrolled, number of teaching and administrative staff) than

those in the south. Secondly, the volume of management activities developed by AREFs in the north is more than double that of AREFs in the south.

As a result, these two parameters require more procedural and methodological skills to successfully carry out mandated audit missions and cover the various auditable aspects [110]. What's more, mastery of internal auditing techniques and methodological tools is proving increasingly necessary, as missions grow in frequency [40], audit practice becomes more professionalized [50] and the scope of auditing extends beyond the accounting sphere to all areas of management [90].

3) *AREF areas audited*

To explore IA activities within AREFs, we focused on the mapping of audited processes (table 5).

TABLE 5. MANAGEMENT AREAS AUDITED, BY AREF SIZE AND GEOGRAPHICAL LOCATION.

Audit Fields	G %	S %	M %	L %	N %	C %	Sth %
Account. & Finan.	68.95	10.55	31.00	27.40	37.0*	19.33	10.50
Public procurement contracts	60.59	11.67	26.67	22.25	40.0*	21.30	14.25
Purchase orders	60.20	29.00	25.00	6.20*	20.00	20.10	16.65
IT	45.90	0.00*	21.65	24.25	20.00	17.33	11.33
Construction	45.16	08.66	16.00	20.50	16.60	22.00	12.25
School Catering/ Boarding	39.60	11.35	12.25	16.00	12.00	08.75	07.60
Logistics & Equip.	35.60	12.30	12.10	11.20	20.00	16.30	12.55
Didactic material	22.65	09.20	07.25	06.20	19.33	17.35	15.25

G: global; S: small; M: medium; L: large; N: north; C: center and Sth: south.

Analysis of the data reveals five major findings :

- The three areas most audited in AREFs are financial & accounting processes (68.95%), public procurement (60.59%) and purchase orders (60.20%).
- Purchasing Didactic Materials (22.65%), Equipment & Logistics (35.60%) and School Catering & Boarding (39.60%) were audited much less frequently.
- Depending on geographical location, there are significant differences between North and South. For example, finance and accounting are audited more often in AREFs in the North (37.00%) than in AREFs in the South (10.50%). Similarly, the public procurement management process is also more audited in the North (40%) than in the South (14.25%). This difference seems quite normal to us, given that AREFs in the North are larger, more budget-intensive and develop a much greater volume of activities (programs and projects) than AREFs in the South. Consequently,

audits of these programs and projects are an obvious necessity.

- Depending on the size of the AREF, there are significant differences between small and large AREFs. In fact, the purchase order process is audited more frequently in small AREFs (29.00%) than in large AREFs (6.20%). To optimize public ordering and make relatively rapid purchases, small AREFs most often proceed by purchase order, for reasons of urgency and feasibility [111], [112]. A duly completed purchase order facilitates purchasing management, saves time, anticipates possible errors and stock shortages, and reinforces trust between customer and supplier.

- Also, the IT area is audited in large AREFs (24.25%) and not at all in small AREFs (0%). Given the low volume of management activities in small AREFs, there is no need to invest in a more elaborate information system ; just applications or software packages would be more than sufficient [113].

4) Typology of audit missions carried out

In terms of the types of audit carried out in AREFs, operational audit (4.36), compliance/regularity audit (3.64) and accounting and financial audit (3.39) were considered the three most important (table 6). It should be noted that the larger AREFs attach greater importance to risk management audit missions than the smaller ones. Indeed, given that there is no such thing as zero risk in management, the greater the volume of activity and the greater the number of actors and stakeholders involved, the greater the likelihood of risks occurring [9]. In fact, all organizations, whatever their size, must set up a risk management audit program to ensure that the internal control system (dedicated to risk management) is solid, functional and effective [52].

At the same time, quality and performance audits are the least recurrent missions in all AREFs. However, our results show that there is no significant correlation between the type of audit carried out and the AREF's geographical area.

TABLE 6. TYPE OF AUDITS CARRIED OUT BY AREF AND GEOGRAPHICAL LOCATION.

Audit typology	μ	S	M	L	N	C	S
Operational	4.36	4.75	4.08	4.25	3.80	4.21	3.25
Compliance	3.64	4.00	3.17	3.75	3.40	3.83	3.33
Financial /Accounting	3.39	3.75	3.17	3.25	3.20	3.75	3.10
Risk management	2.83	1.00	2.50	5.00*	3.25	3.00	2.50
Quality	1.91	1.00	2.25	2.50	3.60	3.00	2.50
Performance	1.71	1.00	2.15	2.00	2.10	2.33	2.00
Others	1.17	1.18	1.35	1.00	1.00	1.43	0.80

μ : Mean score; S: small; M: medium; L: large; N: north; C: center and Sth: south.

5) Objectives of AREF audit missions

The table below shows that, in terms of internal auditing, assessing the sincerity and transparency of financial and accounting operations (4.10) is the most recurrent objective within AREFs. It is closely followed by efficiency of management processes (3.74), performance assessment (3.41) and effectiveness of management processes (3.26). While the objectives of quality (1.35), relevance (1.27) and coherence (1.10) are the least widespread in AREFs. At the same time, these data reveal no statistically significant difference between the nature of the audit objective and the size or geographical position of the AREF.

TABLE 7. NATURE OF THE MOST RECURRENT AUDIT OBJECTIVES.

Mission objectives	μ (1-5)	S	M	L	N	C	Sth
Sincerity & trans.opera	4.10	3.68	4.38	4.24	3.70	4.33	4.00
Process effectiveness	3.74	3.67	3.80	3.75	3.75	3.86	3.12
Perf. assessment	3.41	2.50	3.25	4.50	3.76	3.30	3.10
Process efficiency	3.26	3.05	3.75	3.00	3.00	2.92	3.45
Quality control	1.35	1.20	1.60	1.25	2.23	2.64	1.95
Relevance assessment	1.27	1.23	1.10	1.50	3.50	3.00	3.22
Consistency assessment	1.10	1.00	1.15	1.17	1.17	1.33	1.00

μ : Mean score; S: small; M: medium; L: large; N: north; C: center and Sth: south.

This situation is very much in line with the trend that has characterized internal auditing in the private sector [23]. The primacy of the financial and accounting field is driven both by the importance of the budget managed by AREF, the concern to rationalize expenditure and optimize investments, on the one hand, and by the principles of financial transparency, accountability and responsibility required by the 2011 constitution (Title XII), on the other.

As far as performance is concerned, a public or private company can only be successful if it is both effective and efficient [114]. Effectiveness refers to a company's ability to achieve its objectives within the set timeframe [115]. Efficiency, meanwhile, expresses its ability to achieve these same objectives with the minimum of resources or at the best costs (financial, human, material and temporal) [116].

In the case of AREFs, the break-even point is the preferred indicator for analyzing an entity's efficiency and studying its performance in depth [117]. It is distinguished from effectiveness indicators, which assess how well an organization is functioning, and key performance indicators, which assess process performance.

5. CONCLUSION

This article presents the results of a study carried out on Moroccan AREFs. It aims to study the reality of the implementation of the IA function and the descriptive, structural, organizational and functional characteristics of the IAUs in these AREFs. The empirical results present a "timidly" positive record, despite variations from one AREF to another. The study shows a still restricted and limited profusion of IA practice in Moroccan AREFs. Its practice is normally low, heterogeneous, incomplete, less standardized and less formalized [57].

However, the development trend of IA in education-training is different from that which has characterized IA in private-sector organizations over the past two decades [52]. In private-sector organizations, internal auditing originally focused on financial and compliance auditing. It then gradually broadened its scope to include operational auditing, and later risk management, quality and corporate performance issues [23].

Whereas in the AREFs analyzed, operational audit represents the core of IA activities, even though many missions are still devoted to compliance audit and accounting & financial audit.

Some AREFs are also paying increasing attention to risk management, quality auditing and performance auditing. This reflects the changing context in which AREFs operate. By learning from and capitalizing on progress in the private sector, AREFs have taken a tactical shortcut to align themselves with the private sector in terms of internal audit implementation and practice. As a result, AREFs, like other public and private organizations, face a complex and changing context [118].

Compared with previous literature, our study presents a number of original contributions.

Firstly, there is little empirical data on IA in Moroccan national education, and virtually none on IA in AREFs. IA in the public education system has been largely neglected as a field of research, probably because it is still in its infancy. To date, policymakers and researchers have focused mainly on pedagogical audits involving the evaluation of programs and curricula, and the monitoring of research and teaching-learning activities, although since 2017, reports by the General Inspectorate of Finance (IGF) have emphasized the importance of also auditing functional processes, particularly administrative and financial services.

Secondly, the study sheds further light on IA in Morocco through the case of AREFs, where this research was carried out. Although the situation in Morocco is still diverse, there are several signs that IA is attempting to extend its field of intervention into public-sector organizations, as has already happened in the USA and Europe.

Finally, our study is by no means exhaustive. It also has certain methodological limitations.

Firstly, the use of an online questionnaire may have led to some misunderstandings: this instrument does not allow questions to be explained in greater detail to respondents. In addition, there is no direct control over the actual respondent: the target person can delegate an employee to fill in the questionnaire for him/her. This is a common limitation caused by this research instrument. With this in mind, we have already embarked on a quasi-similar research project using an approach based on total methodological triangulation to overcome these methodological limitations and further refine the research results.

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